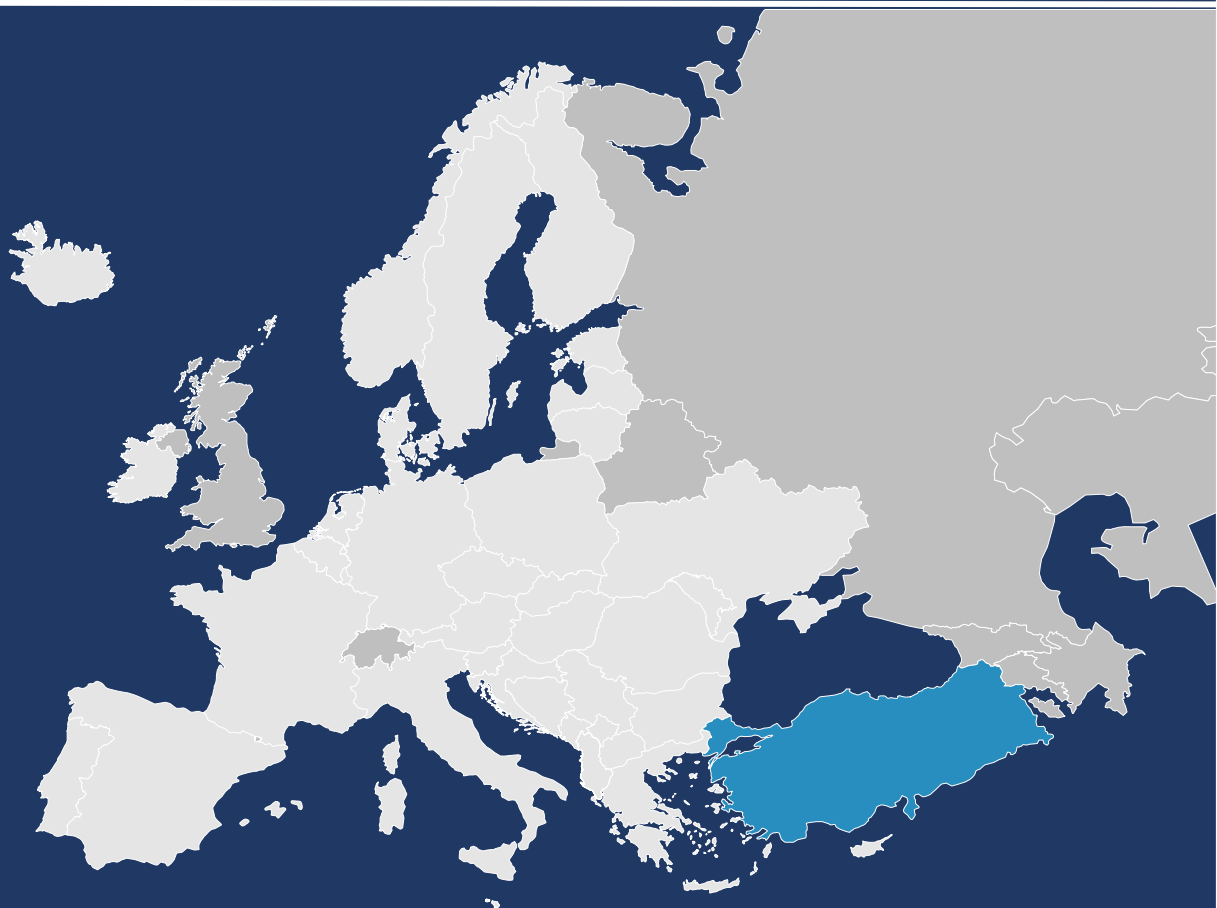




# TÜRKIYE

## 2024 Digital Public Administration Factsheet

Supporting document






Main developments in digital  
public administrations and  
interoperability

JULY 2024

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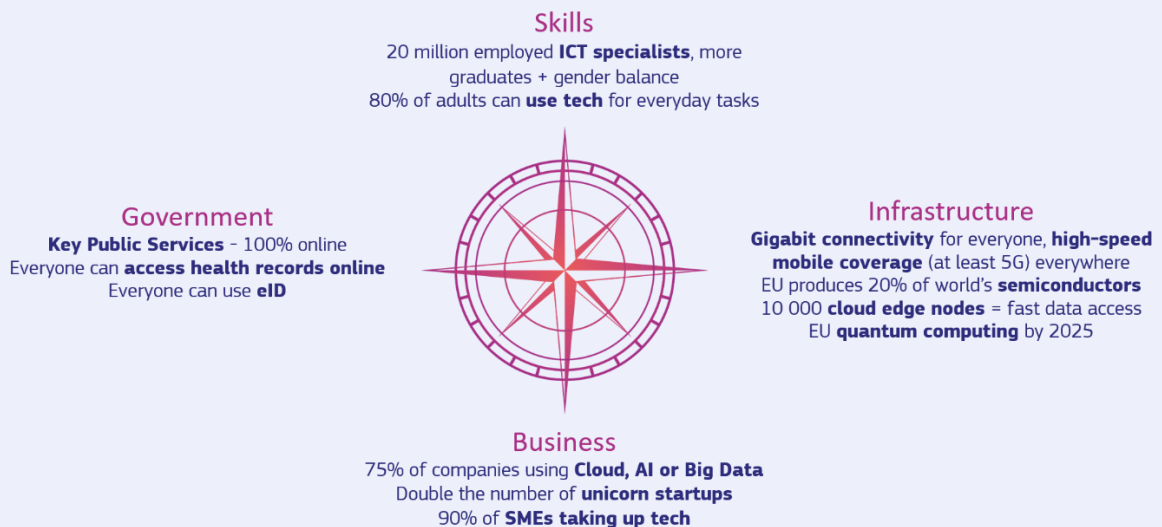
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## 2030 DIGITAL DECADE

The **Digital Decade policy programme 2030** sets out digital ambitions for the next decade in the form of clear, concrete targets. The main goals can be summarised in 4 points:

- 1) a digitally skilled population and highly skilled digital professionals;
- 2) secure and sustainable digital infrastructures;
- 3) digital transformation of businesses;
- 4) digitalisation of public services.



The production of the **Digital Public Administration factsheets and their supportive documents** support the objectives and targets of the Digital Decade programme. By referencing national initiatives on the digital transformation of public administrations and public services, as well as interoperability, they complement existing data and indicators included in the Digital Decade reports and related resources. They also highlight and promote key initiatives put in place or planned by EU countries to reach the Digital Decade's targets.

# 1. Interoperability State-of-Play

*This country was not part of the EIF data collection in 2023.*

## **Curious about the state-of-play on digital public administrations in this country?**

Please find here some relevant indicators and resources on this topic:

- [Eurostat Information Society Indicators](#)
- [Digital Economy and Society Index \(DESI\)](#)
- [eGovernment Benchmark](#)
- [Repository of good practices on the EIF implementation](#)





## 2. Digital transformation of public administrations

### Main digital strategies, action plans and legislations



#### Twelfth Development Plan (2024-2028)

The Twelfth Development Plan, a holistic and high-level roadmap for realising Türkiye's goal of sustainable and inclusive growth on the 100<sup>th</sup> anniversary of the Republic, was adopted by the General Assembly of the Grand National Assembly of Turkey (GNAT) and entered into force upon publication in the Official Gazette on 01.11.2023. The Plan defines the policy framework that the country needs in all areas, from stable growth to green and digital transformation, from social structure to disaster resilience, from sustainable environment to good governance. The Plan also guides the Regional Plans for the period 2024-2028 prepared by Development Agencies at the local level and the Presidential Annual Programs. In the preparation process of the Twelfth Development Plan, a multi-stakeholder and participatory approach has been adopted by involving representatives from the public sector, private sector, civil society and academia. To facilitate this, special expertise commissions and working groups coordinated by the Presidency of Strategy and Budget (SBB) were established, and additional groups were formed when necessary. The Plan aims to identify strategies and practices that will contribute to achieving long-term development goals and align with the 2053 vision to position Türkiye as a global focal point.

The Plan is prepared in line with the vision of "a stable, strong and prosperous country in the Century of Türkiye that is environmentally friendly, resistant to disasters, produces high added-value based on advanced technology, fair allocation of income". In the Plan, the importance of digital transformation in terms of development goals has been raised to a higher level and digital government has been addressed as a separate heading by emphasising user experience and e-participation. In this context, the Plan includes the following high-level measures and policies for the digital transformation of public administrations:

- The administrative capacity and strategic management framework for digital government activities will be strengthened;
- A digital government strategy will be prepared to set out Türkiye's roadmap for the upcoming period;
- Arrangements will be made to support the digital transformation of the public sector, including administrative and technical coordination at institutional and inter-institutional level;
- An institutional digital transformation maturity model compatible with the digital government architecture will be developed, and institutional digital transformation roadmaps will be prepared accordingly;
- Internal control and audit will be activated in public information technologies audit processes; and
- A research and innovation programme will be initiated to investigate the effects of digital technologies on public administration and to increase the strategic decision-making capacity for developments in the field.



#### Presidential Annual Programme 2024

The 2024 Presidential Annual Programme, published in the Official Gazette on 25.11.2023, determined the macroeconomic, fiscal and sectoral policies and the practices for their implementation. The Programme includes targets, policies, measures and performance indicators determined in line with the main objective of developing and increasing welfare under the axes of Stable Growth, Strong Economy; Competitive Production with Green and Digital Transformation; Qualified People, Strong Family, Healthy Society; Disaster Resistant Living Areas, Sustainable Environment; and Democratic Good Governance Based on Justice.



#### Digital Government Strategy and Action Plan

The preparations of the Digital Government Strategy, which will serve as the basis for the digital transformation of public administration in Türkiye, started in 2022 with the task of developing strategies and ensuring coordination within the scope of the policies determined by



the President for the digital transformation of the public sector, assigned to the [Digital Transformation Office \(DTO\)](#) of the Presidency of the Republic of Türkiye by Presidential Decree No. 1. The measures included in the [Eleventh Development Plan](#), the [Twelfth Development Plan](#) and the [Presidential Annual Programs for 2023 and 2024](#). After the preliminary work, the Digital Government Strategy was structured around the following six pillars: 1) Strategic alignment and governance, 2) Digital skills, 3) Data management in the public sector, 4) Technological infrastructures, 5) Service design and delivery and 6) Digital inclusion and participation. Following the completion of the current situation analysis and the development of the solution proposals, the framework of the Digital Government Strategy was established by defining the strategic framework and the programs to be addressed specific to Türkiye. Efforts are underway to add an Action Plan to the Draft Strategy. The Strategy is to be finalised after the stakeholders' consultation process. It is therefore planned to be released in 2024 in line with the Twelfth Development Plan.

### [OECD Digital Government Review of Türkiye](#)

The first step taken to lay the groundwork for establishing a Digital Government Strategy was the Digital Government Review launched for Türkiye in June 2021 with the Organisation for Economic Co-operation and Development (OECD) under the coordination of the DTO. In the process a survey was first conducted with 115 public institutions and organisations within the scope of the current situation review of our country considering the OECD Digital Government Policy Framework; stakeholder meetings were held with the participation of representatives from 44 institutions/organisations as well as South Korea, Sweden and the OECD Secretariat; and capacity building workshops on Service Design and Delivery and the Data-Driven Public Sector were held with the participation of 50 institutions/organisations. The [OECD Digital Government Review of Türkiye](#), which was prepared by developing policy recommendations in line with the identified needs and opportunities, was published on 15 May 2023. The [brochure](#) prepared within the scope of the report also includes summary assessments and policy recommendations.

### [Mitigation of Bureaucracy and Digital Türkiye Meetings](#)

In accordance with the principle of interoperability, the highest level of participation is ensured in the [Digital Türkiye \(eGovernment\)](#) studies in its efforts to reduce bureaucracy. Studies are being carried out through periodic meetings held under the coordination of DTO and under the chairmanship of the Vice President of the Presidency. In order to make data governance more effective, Ministries, relevant public institutions and organisations from the business world are invited to these meetings. In addition to thematic agenda items on the digitisation of public administration, developments in the eGovernment Gateway are also regularly monitored at the meetings. The meeting held on 10 October 2023 under the chairmanship of the Vice President of the Republic of Turkey was the 16<sup>th</sup> to be organised since 2018. Work was initiated in line with the decisions taken at the meeting. The topics discussed at the meeting were the following:

- In terms of creating value from data, it was underlined that more investments should be made in artificial intelligence (AI), big data, and cybersecurity, while the cyber homeland should be among the priorities of all our institutions;
- The importance of Türkiye, which ranked 10<sup>th</sup> among 35 countries in the European Commission eGovernment 2023 Benchmarking Report, to carry this success forward was shared with all participants;
- Information was provided on the innovations brought to the integrated services developed by DTO. In the new period, Umrah and Al-Quds Transactions and Hajj Transactions in 2022, and My Military Service and Heir Transactions in 2023 were added to the already existing integrated services, namely My vehicles, My residence and My working life;
- It was emphasised that the basic information systems in Türkiye are sufficient to provide the necessary infrastructure. After this stage, studies should be carried out to reveal the export capabilities of domestic and national software and digital services; and
- Finally, it was stated that a country that implements policies and strategies with agile data governance, rapidly adapts to innovative technologies, has high competitiveness in electronic service delivery, and focuses on participation and user-oriented approach, should maintain a high rate of citizen satisfaction of 95% with the eGovernment Gateway.

The 255 decisions taken at the aforementioned meeting were also matched with the axes of the Digital Government Strategy, being prepared by the DTO.



## 2023 Industry and Technology Strategy

In 2019, the Ministry of Industry and Technology published the **2023 Industry and Technology Strategy**, whose aim is to carry out a comprehensive programme in the fields of industry and technology through a holistic approach. The strategy consists of five main pillars: high technology and innovation; digital transformation and industry; entrepreneurship; human capital; and infrastructure.

## Digitalisation of internal processes



## Ministry of Family and Social Services - Vision for Improving Digitalisation

The **2022-2023 Civil Society Vision Document and Action Plan** was prepared in order to increase the effectiveness and efficiency of cooperation with civil society, one of the most important stakeholders of the **Ministry of Family and Social Services**. One of the objectives of the Document is 'Improving digitisation within the scope of Ministry-civil society cooperation'. In this context, digitisation studies have been initiated and will be developed in more detail within the scope of the New Vision Document and Action Plan, whose preparation is currently ongoing.



## General Legal Framework

The Regulation on the **Procedures and Principles to be Followed in the Delivery of Public Services**, published in the Official Gazette dated 31.07.2009, is among the first regulations regarding the activities carried out in the field of digital government. The Regulation stipulates that "the procedures and principles administrations must comply with in order to create an effective, efficient, accountable, transparent and citizen-centred public administration and to ensure that public services are provided in a fast, high quality, simplified and cost-effective manner". The Regulation also includes provisions on the delivery of public services in electronic environment. As a direct legal regulation in the field of digital government, the **Regulation on the Procedures and Principles Regarding the Execution of eGovernment Services** published in the Official Gazette dated 03.09.2016 aims to "determine the procedures and principles regarding the scope and execution of eGovernment services within the framework of information society policies, targets and strategies, to make action plans for these services, and to carry out coordination and monitoring activities". The Regulation defines the procedures and principles regarding the provision of eGovernment services and the monitoring and evaluation thereof. With **Presidential Decree No. 1** published in the Official Gazette dated 10.07.2018 with number 30474, the role of 'Government Chief Digital Officer' was trusted to the head of the DTO. Other legal regulations' non-exhaustive list related to the field of digital government are presented below:

- Law No. 6698 on the Personal Data Protection;
- Presidential Decree No. 49 on Geographical Information Systems (GIS);
- Regulation No. 5131 on Identity Sharing System;
- Regulation on Authorisation of Participants within the Scope of Public Informatics Service Procurement;
- Circular on Information and Communication Security Measures No. 2019/12;
- Circular No. 2009/4 on Interoperability Principles in Public Information Systems;
- State Organisation Central Registration System (DETSIS) Circular No. 2022/18;
- Regulation on Authorisation within the Scope of Public IT Procurement Tenders; and
- Circular on the Use of Open-Source Software in Public Sector No. 2013/13.

The relevant draft regulations on which work is ongoing are presented below:

- Draft Data Centre Incentive Law;
- Draft Presidential Decree on the Delivery, Monitoring and Evaluation of Public Services;
- Draft Open Data Circular; and
- Draft Presidential Circular on Public Cloud Computing Strategy.



## Delivery, Monitoring and Evaluation of Public Services

The purpose of the Draft Presidential Decree on the Delivery, Monitoring and Evaluation of Public Services is to ensure that public services are fast, easily accessible, satisfaction-based, impartial, transparent, objective and cost-effective; that the processes of receiving, finalising, monitoring and evaluating applications in the provision of public services are carried out in the digital environment to the maximum extent; and to regulate the procedures and principles regarding the sharing of information, documents and data between administrations. The draft Presidential Decree, which is still in the process of being enacted into law, covers the procedures



and principles regarding public services provided by administrations in a physical or digital environment and the sharing of information, documents and data between administrations.

### eMunicipality

The **eMunicipality Information System** was introduced by the Ministry of Interior. It is currently being developed jointly with the Ministry of Environment, Urbanisation and Climate Change. The System started to be widely used in 2019 following the pilot implementation in 2017. It is an application that ensures that municipal services are provided to citizens in a fast, reliable and uninterrupted manner by following a service-oriented local government policy. In addition, the application aims to expand the Urban Information System, which is one of the leading smart city applications. The System is composed of 67 modules, including the Electronic Document Management System, Movable/Immovables, Performance-Based Budget, Analytical Accounting, and modules for infrastructure and superstructure. Currently, 1 026 out of 1 401 municipalities use the Electronic Document Management System module and 1 140 out of 1 401 municipalities use the marriage module. Work is underway to cover all municipalities. Moreover, the System is integrated into the eGovernment Gateway as well as the base registries and National Judiciary Information System (UYAP).

### The LocalInfo (YerelBilgi)

The **LocalInfo System Project** is operational under the scope of the **Local Administration Reform (LAR III) Project**, which aims to have up-to-date, effective, inclusive, reliable, easily accessible, accountable and versatile information on local administrations. Developed and implemented by the Ministry of Environment, Urbanisation and Climate Change, the System can collect and instantly report all kinds of statistical data of 1 401 municipalities, 194 local administration unions and 33 municipal affiliated administrations. In 2021, necessary trainings were provided to all local government representatives in 13 regions and local government branch managers in 81 Provincial Directorates in order to introduce the use of the system and raise awareness. The system significantly contributes to ensuring data reliability, consistency and timeliness while reducing bureaucracy. In order to carry out the duties assigned to the Ministry of Environment, Urbanisation and Climate Change more effectively, the System was made available to all local governments in order to (i) collect the data needed by central administration institutions and organisations, (ii) establish various service standards in local governments, (iii) ensure the efficient coordination, legislative arrangements and, in situations that require rapid decision-making such as disasters, reduce bureaucracy by having accurate, reliable and up-to-date data.

### Development Agencies Management System (DAMS)

**DAMS** is a modular, integrated and centralised management system that handles the administrative, financial and support processes of Development Agencies in Turkey. It contributes to strengthening the institutional functioning of Development Agencies by facilitating tasks such as project application, evaluation and monitoring, standardising processes, centralising data and making coordination efficient. It also helps to optimise resource allocation and project management, reducing operational and bureaucratic costs and saving time and money.

### Public Diplomacy Monitoring System (KADİZ)

**KADİZ**, a web-based system that enables the monitoring, evaluation, tracking and reporting of projects and activities within the scope of the National Public Diplomacy Strategy Document and Action Plan, was launched on 1 June 2022 under the coordination of the **Directorate of Communications of the Presidency of the Republic of Türkiye**, with the contributions of stakeholder institutions and organisations. With KADİZ, digital diplomacy is also included under a separate heading within the scope of public diplomacy activities. The results of the activities can be periodically monitored and statistical data can be accessed.

### Information Management System (EYS)

According to the Presidential Decree No. 14, the Department of Public Diplomacy under the **Directorate of Communications** is responsible for monitoring and evaluating the activities of the Offices of Communications Counsellors abroad and presenting the results to the Presidency. In this context, the EYS was implemented to increase the security of information flow between the international and central organisations. The system aims to strengthen institutional memory by using the existing infrastructure. The EYS was put into use on 27 February 2023 and continues to be improved in line with the demands of users and the permissions of administrators.



## Digitalisation supporting the EU Green Deal



### Participation to the Digital Metrology Network of the EU

In 2023, Türkiye participated in joint studies with European Metrology Institutes in order to be included in the European Data Space project prepared for submission to the Digitisation call of the EPM (European Partnership on Metrology) call opened within the scope of Horizon 2020. This is aimed to bring together the institutions and organisations involved in the quality infrastructure of our country on a digital platform and add them to the Digital Metrology Network of the European Union.



### Green Deal Action Plan (GDAP)

Presidential Decree No. 2021/15 on the Green Deal Action Plan (GDAP) was published in the Official Gazette dated 16 July 2021 and the Green Deal Working Group (GDWG) was established to set a roadmap for Türkiye's alignment with the European Green Deal. The Action Plan includes 81 actions to be implemented to achieve the goals set under the headings of (1) carbon border adjustments, (2) green and circular economy, (3) green finance, (4) clean, affordable and secure energy supply, (5) sustainable agriculture, (6) sustainable smart transportation, (7) combating climate change, (8) diplomacy and (9) information and awareness-raising activities in line with the EU's policy priorities. The Working Group continues its activities under the coordination of the Ministry of Trade.



### Energy Efficiency (ENVER) Portal

Buildings, industrial enterprises, electricity generation facilities, and organised industrial zones are obliged, under the Energy Efficiency Law No. 5627 and its secondary legislation, to submit energy consumption notifications and appoint energy managers through the ENVER. This portal has been established as part of digitisation efforts in energy efficiency. The Portal is accessible via eGovernment authentication.





## 3. Interoperability and data

### Interoperability Framework



#### Twelfth Development Plan (2024-2028)

The field-specific measures identified in the Plan are the following:

- Process ownership and management capacity of public institutions will be improved by implementing a central process automation platform and common process library;
- The National Geographic Information System (NGIS) infrastructure will be strengthened and integrated with the eGovernment Gateway;
- An e-participation ecosystem will be established to receive opinions and suggestions on digital public services;
- Service design workshop will be established to bring together those who design, deliver and receive digital public services;
- Management capacity and strategic management framework for digital government activities will be strengthened;
- Arrangements will be made to support the digital transformation of the public sector, including administrative and technical coordination at the inter-agency and institutional level; and
- A digital government architecture will be established and interoperability guidelines will be updated.



#### Interoperability Principles in Public Information Systems

The first study on Interoperability in Türkiye was the Interoperability Principles Guide (Version 1.0) under the scope of the e-Transformation Türkiye Project in 2005. Version 2.0 of the Guidelines was published in 2009 and the latest Version 2.1 was published in May 2012.

[Circular No. 2009/4 on the Principles of Interoperability in Public Information Systems](#) was published in the Official Gazette dated 28 February 2009 and is still in force. With this circular, it was made obligatory to comply with the principles and standards specified in the Guidelines in all IT investments made with public resources. This measure aims to ensure interoperability among all organisations providing services to the public in electronic environment, especially public institutions and organisations. In this framework, authorities and responsibilities, guiding principles, standards, procedures and criteria as well as technical requirements have been determined. The Guide consists of three main sections: General principles and interoperability policy, Technical standards and Activities to be carried out in addition to the Guidelines. The Guidelines address fundamental, policy and technical criteria for interaction with citizens, the private sector and the public sector. The responsibility of updating the Interoperability Guidelines in line with the policies and measures in the Twelfth Development Plan (2024-2028) and the 2024 Presidential Annual Program has been assigned to the DTO and the work will start in 2024. In Türkiye, the Interoperable Europe Act, the European Interoperability Framework and the solutions implemented by the European Commission on interoperability are being followed.



#### Interoperability Principles for Geospatial Data Interoperability Principles for Geospatial Data

[Presidential Decree No. 49 on Geographic Information Systems](#), which entered into force in 2019, emphasised the principle of 'ensuring interoperability and inclusiveness'. It also stated that infrastructure and coordination activities for access, sharing and use of geographical data should be carried out by relevant public institutions and organisations in accordance with the interoperability principles determined by the Ministry of Environment, Urbanisation and Climate Change. The [TUCBS Interoperability Procedures and Principles Guide](#) was published by the Ministry of Environment, Urbanisation and Climate Change in 2020 to ensure interoperability within the scope of [National Geographic Information Systems of Türkiye \(TUCBS\)](#). The purpose of this guidance document is to guide public administrations in designing and updating the national interoperability structure or policies, strategies and principles that support interoperability of



geographic data. In addition to this guide, [Technical and Organisational Interoperability Procedures and Principles](#) were also published in 2020.



### Interoperability Principles for Smart City

The [Smart City Interoperability Model](#) was created in terms of semantic, organisational, technical, data exchange, legal, strategic, physical and technological aspects, and the [Smart City Interoperability Principles Guide 2020](#) was prepared by the Ministry of Environment, Urbanisation and Climate Change. In the first part of the Guide, general principles and interoperability policy in smart cities are defined. The second part determined the technical standards regarding the presentation, transportation, exchange, integration, security and life cycles of the solutions developed. The preparation of the guide hinged on the e-Transformation Türkiye Project [Interoperability Principles Guide](#), the new European Interoperability Framework and the interoperability documents published within the scope of EU supported smart city projects, as well as the works of relevant standardisation bodies.



### Circular on the use of Open-Source Code in Public Sector

Published in 2023, the [Circular Regarding Use of Open-Source Software in the Public Sector number 2023/13](#) aims to promote the use of the open source software model (OSS) in the public sector. This model allows users to review, audit, develop and republish while increasing information sharing and collaboration in the public sector. The objectives are to save on IT expenses, reduce dependency on software vendors and increase cybersecurity. Inter-institutional coordination in the transition process is provided by DTO. The Circular envisages that the OSS Transition Analysis and Roadmap Report on the inventory of commercially licensed software used (and the software that can be replaced with Open Source equivalents by public institutions) should be prepared in accordance with the announced [template](#) and the [OSS Transition Analysis Guide](#). It should later be submitted to the DTO within nine months.



### National Data Dictionary

Efforts are currently ongoing to launch a [National Data Dictionary](#) in order to solve problems regarding the following challenges: integrating ISs of public institutions and organisations, duplicate and conflicting data, the lack of a common language in ISs and unknown data ownership. The Dictionary also aims to compile a national data inventory, identify data ownership, and configure management and monitoring. The data entry rate to the System has reached 93%.



### National Geospatial Data Dictionary

The Geospatial Data Specification Documents, UML diagrams and XSD diagrams prepared by the Thematic Working Groups based on Presidential Decree No. 49 were published in the official gazette in 2020. The [TUCBS Spatial Data Dictionary Platform](#), which was created based on the standard data content and structures, was launched in 2021. The Dictionary contains 89 schemas, 839 objects and 768 attribute information under 32 themes such as address, infrastructure, building and geology etc. in line with the EU INSPIRE Framework.



### Digital Government Middleware Layer (DİDAK)

The [DİDAK](#) Project, launched in 2023 under the Investment Program, aims to establish an infrastructure that will enable the development of Digital Government Services in accordance with the standards to be determined, facilitate data sharing among institutions and organisations and ensure the integration of services. Citizens will have easier access to online public services through digital platforms and services will be provided in a more efficient, fast and secure manner. The aim is also to create a platform powered by open-source technologies, microservices support and container-based infrastructure that enables developers and system administrators to develop, build, deploy, run, scale and manage software in a fast, secure, efficient and business-continuity manner.



### Strategic Communication Management Platform (SCMP)

The SCMP aims to be a platform where public institution strategic communication, crisis communication, anti-disinformation, public relations, publicity and media capacities are evaluated within the framework of the [Türkiye Communication Model](#). The platform is expected to create an institutional memory that prioritises data for public communication activities and ensures unity of discourse and coordination. Structured and analysed interactive reports will be presented to



the highest management level through analytical evaluation methods that will be repeated at regular intervals for all institutions.



[icerik.gov.tr](http://icerik.gov.tr) ([content.gov.tr](http://content.gov.tr))

[icerik.gov.tr](http://icerik.gov.tr) aims to be a platform where photos, videos, documents, information and data representing Türkiye's historical, cultural, geographical, economic, human and technological assets will be promoted at home and abroad.



[Public ICT Projects Preparation Guide](#)

The [Guide](#) aims to support all public institutions, including local governments, in the preparation of ICT investment projects, ensuring cost-benefit analysis, timely completion of projects and the establishment of an interoperable eGovernment structure. The guide also includes a set of policies and principles that institutions should follow in order to be included in the investment program.

## Data access, management and reuse



[Twelfth Development Plan](#)

The field-specific measures identified in the [Plan](#) are as follows:

- The national data governance framework will be determined, and the necessary technical, institutional and legislative infrastructure will be developed;
- The National Data Strategy and Action Plan will be prepared and put into practice;
- Studies will be carried out to set out the basic rules for cross-border data transfers;
- Efforts to use the data in the digital environment to create added value will be supported;
- Data governance and advanced data analytics capacity will be developed in public institutions and inter-institutional data sharing mechanisms will be strengthened;
- National data dictionary and institutional and thematic data dictionary studies will be completed;
- Inter-institutional advanced data analytics and AI projects and public data space infrastructure to increase institutional capacity will be implemented;
- An application programming interface will be developed for inter-institutional data sharing and protocol management; and
- Legal arrangements will be made for sharing public data and a national open data portal will be launched.



[National Data Strategy and Action Plan Studies and Data Governance Working Group](#)

One of Türkiye's main goals is to rapidly modernise a public administration model that generates value from data by establishing a strong data sharing and exchange cooperation between public administrations, private sector, universities and civil society organisations, and to encourage innovation. In this context, the [National Artificial Intelligence Strategy \(NAIS, 2021-2025\)](#) includes important data-driven actions to increase the competitiveness of the economy and maximise citizen satisfaction. In addition, the development of national data governance was identified as an important policy under the Twelfth Development Plan, and the task of preparing a [National Data Strategy and Action Plan](#) was assigned to the DTO in the 2024 Presidential Annual Program. In this context, in order to form the basis for the National Data Strategy studies in cooperation with the United Nations Development Program (UNDP), studies were initiated in April 2022 with the contributions of stakeholder institutions leading the data ecosystem on the establishment of a governance framework that will define access, use and sharing of data in Türkiye. The [Data Governance Framework - Recommendation Report for Türkiye](#) was published in 2023. In addition, the Data Governance Working Group, which includes a wide range of experts, was established to serve as a national network within the scope of NAIS. In addition to providing high-level contributions to the relevant actions in the NAIS action plan, the Working Group evaluates national and international developments in the field, identifies current needs and provides expertise on data governance. The DTO plans to publish the Strategy in 2025.



[Protection of Personal Data and Big Data Impact in Turkish Law](#)

Since 2010, the right to request the protection of personal data has been guaranteed as a constitutional right under Article 20(3) of the Turkish Constitution, stating that "Everyone has the





right to request the protection of his/her personal data". This right includes the right to be informed about personal data, to access such data, to request their correction or deletion, and to learn whether they are used for the intended purposes. Personal data may only be processed in cases stipulated in the Law or with the explicit consent of the person. The principles and procedures regarding the protection of personal data are regulated by the Law. In this context, [Law No. 6698 on the Protection of Personal Data](#) was adopted in 2016 in line with the EU's former personal data protection instrument Directive 95/46/EC, the purpose of which is to protect the fundamental rights and freedoms of individuals, in particular the right to privacy, in the processing of personal data and to regulate the obligations of natural and legal persons who process personal data and the procedures and principles to be followed. Türkiye's process of full harmonisation with EU standards on the protection of personal data is still ongoing, particularly in view of the General Data Protection Regulation (GDPR), which repealed and replaced Directive 95/46/EC. Within the scope of the 8<sup>th</sup> Judicial Package, Article 6 of the Law on the Protection of Personal Data No. 6698 on the conditions for processing special categories of personal data, Article 9 on the transfer of personal data abroad and Article 18 on misdemeanours were amended in order to comply with the European General Data Protection Regulation (GDPR) and published in the [Official Gazette](#) dated 12 March 2024 and numbered 32487.



### Freedom of Information Legislation

The [Law No. 4982 on the Right to Information](#) came into effect in April 2004. The act was then supplemented by [Circular No. 2004/12 on the Exercise of the Right of Petition and Access to Information](#). Currently, within the scope of the implementation of the Law on the Right to Information, the [Regulation on the Principles and Procedures Regarding the Implementation of the Law on the Right to Information Act](#) is in force. The Law grants citizens and legal entities the right to information from public institutions and private organisations that qualify as public institutions. Following the enforcement of the Law in April 2004, all public institutions established Right to Information Units and started to accept information requests, including those made on the internet. In November 2005, the Right to Information Act was amended to enable citizens to dispute all decisions by State agencies regarding denials of requests for information.



### Public Virtual Network (KamuNet)

Data sharing between public administrations is currently carried out through web services under protocols mutually organised by the institutions. The VPN-based KamuNet secure data sharing infrastructure is used for data transmission. It is currently actively used by approximately 140 institutions. The project aims to maximise the security level by using national encryption algorithms on domestic and national IP encryption devices. In addition, advantages of the project include increasing the ability to intervene instantly during emergencies with the central management infrastructure, monitoring service continuity and statistical reporting of usage status.



### Public Data Space Project

The [Public Data Space Project](#) was initiated by the DTO with the aim of defining an inter-institutional data exchange framework in accordance with advanced standards and guidelines that enable reliable data storage, sharing and processing in a way that guarantees data sovereignty among public institutions. With the implementation of the project, institutions will be able to make discoveries for the design of improved or new products and services using advanced analytical and AI techniques. This will be achieved utilising each other's data in line with their authorisations within the framework of reliability and confidentiality principles. The project aims to popularise AI and big data studies in the public sector by establishing the technical infrastructure and governance mechanism that will enable data sharing in a controlled and traceable manner. In this context, the Public Data Space Reference Architecture and Transition Plan is being prepared and a data-driven ecosystem is being created for institutions to share and process the data for which they are data controllers through an authorised infrastructure.



### Electronic Public Information Management System (KAYSİS)

[KAYSİS](#) is an information management system that enables the identification of the elements involved in public administration, from the definition of the organisational structure of public institutions and organisations to the services provided, from the documents used in services to the contact and executive information of institutions, in electronic environment together with their legislative bases. KAYSİS enables the integration of the Digital Turkey (eGovernment) applications from a single point. With the sub-systems of KAYSİS, dynamic organisational charts



are created by defining the institutions and organisations that constitute the State organisation and their central, provincial and foreign units; the process details of the services provided by public institutions are defined and published electronically; basic data for e-Correspondence and e-Signature processes are provided; legislation that is put into force without being published in the Official Gazette is recorded; statistics such as service delivery times and annual number of transactions are collected. KAYSİS sub-systems are listed below:

- **State Organisation Central Registration System (DETSİS):** DETSİS includes registries of all units of public institutions and organisations within the State organisation in a single point in accordance with the hierarchical structure. Within DETSİS, each institution/unit is singular, unchangeable and identified by its unique DETSİS Number.
- **Service Inventory Management System (HEYS):** It is the system determining at 'processes' level the public services provided by public institutions and organisations to citizens, private sector, NGOs and other public institutions, and all other activities carried out in institutions. These processes are associated with each other.
- **Public Legislation System (KMS):** Within KMS, regulation, directive, circular, notification, ruling, main statute, general specifications, texts and other regulatory procedures etc. are included. With KMS, all secondary written sources of Turkish Law can be accessed. KMS also publishes legislation published in the Official Gazette.



### National Geospatial Information Platform (TUCBS)

TUCBS is a web portal application that operates in accordance with legislations such as Presidential Decree No. 49, Law on the Amendment of Some Laws with Geographic Information Systems, the Procedures and Principles Regarding Geographic Data Access, Sharing, and Use, and the Procedures and Principles on Geographic Data Production and Sharing in Disasters and Emergencies. TUCBS hosts the following applications: Atlas map viewer and management application (portal, management, basic); Metadata (metadata entry, query, validation); Geographic Data Format and Projection Conversion; TUCBS Service Control; TUCBS Data Request; TUCBS National Geospatial Data Dictionary; TUCBS Guidelines (Interoperability Guidelines, Data Specification Documents, etc.). The updating, modernisation and integration of these applications with eGovernment was initiated on 20.11.2023 and the work is still ongoing.



### Data Sharing in the Field of Payment Services (Payment Initiation Service and Account Information Service)

The Central Bank of the Republic of Turkey (CBRT) established a new infrastructure called GEÇİT (Gateway) at the Interbank Card Centre (BKM), which became operational on 01.01.2022, to facilitate the sharing of data on payment accounts in Türkiye among payment service providers. GEÇİT enables customers to access their payment accounts at different payment service providers through a single payment service provider and initiate payment transactions from these accounts. It aims to eliminate the need for payment service providers to establish different integrations and connections. Currently, 16 banks are integrated into the BKM GEÇİT infrastructure, 4 Licensed TPPs and 15 banks as Account Service Payment Service Providers (AISP/PISP). The number of integrated organisations is expected to increase in the future.

## Open data



### Open Data Portal

The **Open Data Portal** is a data sharing project that creates value from anonymised and privacy-guaranteed data and makes it available to individuals and the scientific world. The project, carried out by DTO, aims to share all kinds of open data, thereby developing AI and innovative technologies. In line with the policies and measures in the Twelfth Development Plan and the 2024 Presidential Annual Program, legal arrangements will be made for the sharing of public data and a national open data portal will be launched.



### National Smart City Open Data Platform (ULASAV)

Built on the open source CKAN infrastructure, **ULASAV** contains smart city data produced by municipalities and other stakeholders in Turkey. The platform was developed by the Ministry of Environment, Urbanisation and Climate Change in 2023. ULASAV, which publishes data free of charge, aims to use the data, conduct research and analysis, and contribute to the improvement and development of services by designing applications. The portal contains more than 2 700 data sets in formats compatible with the open data concept such as XLSX, CSV, JSON, PDF, API, WMS.





The aim of the platform is to provide open smart city data from a single platform and to prevent municipalities from making duplicate investments while creating their own open data platform. Currently, municipalities working on open data are integrated into the platform and 113 municipalities are currently registered on the platform. In terms of best practices, the metropolitan municipalities of Istanbul, Konya, Ankara, Ordu, Izmir and Bursa are examples of municipalities with open data portals.



### Istanbul Metropolitan Municipality Open Data Portal

In 2020, the Istanbul Metropolitan Municipality (IMM) launched an [Open Data Portal](#) powered by CKAN. The portal holds more than 400 new datasets. New capabilities and datasets will be deployed in the future, including better API-based data access, data format coherency and improved compatibility with mobile devices.



### Konya Metropolitan Municipality Open Data Portal

In 2021, the Konya Metropolitan Municipality launched an [Open Data Portal](#) powered by CKAN. The portal holds more than 150 datasets about 10 categories such as life, mobility, health, environment and agriculture. The Portal allows especially entrepreneurs, academics, application developers and citizens to access the data. It is aimed that entrepreneurs will be able to produce projects faster and more effectively by accessing the right information from a single source.



### Supreme Election Council Open Data Portal

The [Supreme Election Council Open Data Portal](#) is a platform that includes data from all Presidential Elections, Parliamentary General Elections, General Elections of Local Authorities and Referendum elections held since 2009. The project started in May 2020 and was completed in July 2021. In the Open Data Portal, data are displayed on 40 screens, and are available in the form of downloadable reports suitable for public use. Different statistical graphical representations of the data are presented, and there is a request form that allows users to request unpublished data on the portal. An alternative service is also provided in English. Data shared on the map can be accessed at province, district and neighbourhood level.



### TurkStat SDG Portal

In 2022, the Turkish Statistical Institute launched the [Sustainable Development Goals \(SDG\)](#) web portal. The portal provides up-to-date data on SDG indicators for Türkiye under 17 goals to users from various backgrounds. It is readily compatible with mobile devices, and its content will be enhanced with new indicators and visualisations in the near future.



### Open Data For Chain Stores

Within the scope of the Regulation on [Principles and Rules to be Applied in Retail Trade](#), which entered into force on 6.8.2016, a big data and price comparison system for the food retail sector was implemented by the Scientific and Technological Research Council Of Türkiye (TÜBİTAK) with the authorisation of the Ministry of Trade. In this context, the branch-based price data of the products offered for sale in the physical branches of chain stores engaged in the sale of fast-moving consumer goods in the food retail sector and having more than two hundred branches are collected on the big data platform established by TÜBİTAK Informatics and Information Security Research Centre (BİLGEM). With the system integration established between the companies and BİLGEM, the price information to be applied to the products is transmitted to the big data platform by the chain stores at the beginning of each day. Chain stores with less than two hundred branches that meet the technical conditions required by BİLGEM for data integration can also be included in the big data platform upon application. This project allows the public to access the most efficient price comparison tables from an easy and accessible platform.

## Base registries

The following table lists the Türkiye's base registries:

National	
Business and Tax	The Central Registration System (MERSİS), developed by the Ministry of Trade, is a centralised system for electronic commercial transactions



	<p>registration and record-keeping. MERSİS simplifies the company establishment process by eliminating the need for physical applications to the Tax Office and Social Security Institution, with tax and social security registrations being done electronically at the time of establishment. Integrated with the eGovernment portal, MERSİS allows authorised company representatives to perform transactions and provides verification for 371 eGovernment services. The system serves 2.7 million users and shares data with 60 institutions. The Ministry of Trade has expanded MERSİS' electronic services to include modules for general assemblies, electronic documents, announcements, appointments, legislation, board processes, restrictions, signature data retrieval, and authorisation acceptance. The MERSİS Mobile Application, launched on 29 December 2023, enhances the speed and convenience of trade registry transactions. Efforts are underway with the Union of Chambers and Commodity Exchanges of Türkiye (TOBB) to fully transfer all company establishment processes, including payments, to an electronic format, allowing entrepreneurs to establish companies remotely using electronic or mobile signatures.</p>
Transportation / vehicles	<p>ARTES was developed to ensure that vehicle sales, transfer and registration services are reliable, up-to-date and in line with EU and eGovernment norms. Utilising the widespread network of notaries, the system enables transactions to be finalised at a single point of application. It covers the initial registration of the vehicle, technical changes to the vehicle (modification), follow-up of the rights claimed on the vehicle (deprivation of rights, pledge and distraint), handover (transfer and sale) and scrapping services.</p>
Land	<p>The <a href="#">Regulation Amending the Regulation on the Sharing of the Land Registry and Cadastre Data</a> was published on 1 November 2018. The purpose of the Regulation is to set out the procedures and principles regarding the sharing of data produced or archived by the General Directorate of Land Registry and Cadastre with individuals and institutions in digital or printed form and the execution of title deed works and transactions in electronic environment. Systems of many institutions have been integrated with TAKBİS (Land Registry and Cadastre Information System) to exchange data, such as MERSİS (Central Registration System), MERNİS (Central Civil Registration System), GÖÇNET (Immigration Registration System), MAKS (Spatial Address Registration System), and the online systems of the Notaries Union, the Ministry of Justice, Ministry of Agriculture, Revenue Administration and Banks. TAKBİS is an eGovernment project designed to transfer property data, transactions, monitoring and control mechanisms in Land Registry and Cadastre records across Türkiye to the electronic environment. The implementation started with a pilot study in 2002, and in 2012, land registry offices across the country were included in the system. Today, 973 land registry offices and 1 foreign representative office (Berlin) provide services through TAKBİS system.</p>
Population	<p>With the <a href="#">Central Population Management System (MERNİS)</a> project, all civil status information was transferred to the electronic environment and changes in this information were updated instantly from 970 centres scattered throughout the country and shared securely over a network. Within the project, different numbers and signs used by institutions for Turkish citizens were terminated. <a href="#">Regulation No. 5131 on the Sharing of the Identity Registration System</a> was published on 8 December 2006, setting out the procedures for sharing the electronic information contained in the Identity Registration System with public institutions. With the <a href="#">Identity Sharing System (KPS)</a> project, which is the continuation of MERNİS, information was made available to institutions, providing a reliable, fast and efficient service and preventing additional paperwork.</p>
Other	<ul style="list-style-type: none"> <li>The <a href="#">National Address Database (UAVT)</a> was developed to ensure that the residence and other address information of individuals are kept in a single place in accordance with the standards and to share this</li> </ul>





	<p>information with public sector according to certain principles. Data flow to the system is provided by municipalities and special provincial administrations in villages. All institutions that provide address-based public services and keep records of private and legal persons carry out their procedures through this system. No public service is provided to an address not included in the system. The establishment of the UAVT was completed by the Turkish Statistical Institute (TurkStat) in 2007 and transferred to the Ministry of Interior. The management, updating and sharing of the information in the system with relevant institutions and organisations is provided by the General Directorate of Population and Citizenship Affairs (NVİGM) of the Ministry of Interior. The UAVT will be replaced by the Spatial Address Registration System (MAKS), and until this process is completed, cooperation activities with the Ministry of Interior will continue to keep the UAVT up-to-date.</p> <ul style="list-style-type: none"> <li>• The <a href="#">Spatial Address Registration System (MAKS)</a> project was initiated with the aim of combining and geo-referencing existing textual address records in the UAVT with spatial data. By integrating MAKS with the eGovernment infrastructure it is expected that the modernisation of address registration services will result in reduced bureaucracy and most importantly provide better location statistics and spatial analysis. It serves as a platform for authorities across the country, including municipalities, special provincial administrations, organised industrial zones and free zones, to work on location and construction issues. As of the end of 2023, 81 provinces in Turkey have been activated in MAKS and approximately 1 800 authorised administrations are using this system.</li> <li>• Geographic data required by different stakeholders are shared through the <a href="#">National Geospatial Information Platform (TUCBS)</a> to the extent permitted by the data owner institutions in accordance with the <a href="#">Geographical Data Sharing Matrix</a>.</li> <li>• The <a href="#">Farmer Registration System (ÇKS)</a>, which records the crop production activities of real and legal persons, monitors crop production subject to support and keeps statistics, is provided through eGovernment. With the ÇKS, information on land, crops, subsidy information on crop production, ownership status, irrigation and cadastral status, etc. at farmer, village, district, province and regional level can be accessed, various queries can be made, and crop patterns and maps can be obtained on a provincial basis.</li> <li>• The <a href="#">National Water Information System (USBS)</a>, which was established to produce water data on a standardised and scientific basis, serves holistic water management by taking into account such components as surface, groundwater, subsurface, aboveground and coastal transition water quality, water quantity, flood and flood risk/hazard maps, the impact of climate change and drought on water resources, allocations, basin management plans, drinking water and pressure factors on water resources. Services are provided to citizens through the eGovernment Gateway.</li> </ul>
Sub-national	
Base Registries	

### Data platforms and portals

The following table lists the Türkiye’s data platforms and portals infrastructures:

Integrated Public Service Platform	eGovernment Gateway enables public institutions to share data over VPN. Thus, an institution requesting data from other institutions can benefit from a secure and single connection without having to establish a
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	<p>connection with each institution individually. The eGovernment Gateway consists of a web-based and a service-based application. The web-based application, which runs on the <a href="#">Public Applications Centre</a>, provides a mechanism that allows public officials to see only the information permitted within the authorisation granted by the relevant public institution. With the service-based application, institutions can share data with each other within the specified rules without requiring any authorisation. For example, universities can use the <a href="#">Public Service Platform (PSP)</a> to check the military service status of students online through their Turkish ID numbers. The information is provided by the Ministry of National Defence.</p>
<p><a href="#">Healthcare Statistics and Causative Analysis (SİNA)</a></p>	<p>The <a href="#">Healthcare Statistics and Causative Analysis (SİNA)</a> is a decision support system platform developed by the Ministry of Health aiming to manage institutional resources more effectively and to increase the ability of central and provincial organisation users to make effective and fast decisions. In these aspects, SİNA enables detailed reporting of data transmitted from health facilities. Large-scale data collected by e-Nabız, the personal health record system, and other information systems of the Ministry are shared with decision makers through SİNA.</p>
<p><a href="#">Spatial Business Intelligence Platform (MİZ)</a></p>	<p>The <a href="#">Spatial Business Intelligence (MİZ) Platform</a> is an application where the data of the Ministry of Health and other institutions are presented together with population and geographical data, the distribution of diseases, patient movements, health institutions and health personnel throughout the country. Moreover, their relationship with the population are analysed and visualised on the map. The application includes many up-to-date technologies. MİZ consists of three different modules: the Spatial Business Intelligence (MİZ) Module, which was developed to identify problems in advance and plan the future better; the Public Health Geographic Information Systems Module, which allows public health buildings to be listed on the map according to the selected filter and to display detailed information about the buildings; and the Health Dashboard.</p>
<p><a href="#">e-Report</a></p>	<p>In 2018, the <a href="#">e-Report System</a> was developed by the Ministry of Health to ensure that reports of all institutions (driving, birth, enlistment, adult disabled, psychotechnical, bedridden voters, Turkish Armed Forces (TAF), Gendarmerie General Command (GGK), Social Security Institution (SSI), Special Needs Reports for Children (ÇÖZGER), athletes, status reports and optical prescriptions) are issued electronically with e-Signature. The e-Reports produced by health institutions and medication reports, medical rest reports, medical equipment reports produced in Social Security Institution (SGK) systems are also shared online within the framework of the protocol signed with the relevant institutions. Citizens can access their reports through the eGovernment and e-Nabız platforms.</p>
<p><a href="#">Electronic Document Management System (EDMS)</a></p>	<p><a href="#">EDMS</a> is a system that ensures the recording, sharing and digital accessibility of all kinds of documents created by the central and provincial organisations of the State and all affiliated and related institutions while carrying out their activities. EDMS, which also includes trust services such as e-signature and Registered Electronic Mail (KEP), can be accessed via Android and iOS.</p>
<p><a href="#">Uninterrupted Election Management Information System (SEÇSİS)</a></p>	<p><a href="#">SEÇSİS</a> is a system in which domestic and international electoral registers containing data, information and documents about elections are produced, securely stored, and shared with citizens and political parties. From the point of updating of the electoral registers, this network carries out: (i) the creation of the ballot boxes where voters will cast their votes; (ii) the preparation of the ballot box voter lists and voter information sheets; (iii) the provision of data flows through public institutions; and (iv) the</p>

	production of all info and documents related to the elections and their usage by the provincial/district election boards. In all processes, the system guarantees the accuracy and reliability of the data.
Entrepreneur Information System (EIS)	EIS is an enterprise-based information system that integrates data from administrative records of different institutions. Within the scope of the EIS, economic activity data of enterprises generating commercial income in the Turkish economy are aggregated in a central database.
Single Window System	The System is a web-based and eGovernment Gateway integrated system that enables citizens and businesses to access the documents required for customs controls and follow-up of their applications from a single point. Currently, 180 documents are processed in the single window system and 24 public institutions have joined the system.
Port Single Window System	With the System, in order to carry out port operations in a faster, safer and easier way, the notifications made by ship agencies before and after the arrival and departure of the ship are entered into a single database. Thus, the System provides the information needed by stakeholders and ports and enables to view the results of the permits and transactions made by public institutions and organisations.
Container and Port Tracking System	The System was established to record information on containers entering and leaving the country, to ensure electronic exchange of information between customs administrations, port authorities and agencies, and to monitor container and goods movements at ports.
Customs Goods Tracking and Declaration Operations Inquiry System (GET-APP)	With GET-APP, users can track the customs procedures of imported or exported goods within a certain calendar period and get an idea about the estimated completion date. In addition, with the Bulk Guarantee Inquiry menu, users can query the amount and balance information of bulk letters of guarantee submitted to customs administrations.
The Free Zones Information System (SEBİS)	SEBİS is a platform where all the transactions regarding the entry and the exit of goods in free zones are carried out. SEBİS is integrated with Electronic Customs Declaration System-BİLGE and the Free Zone Implementation Program-SBBUP (where records regarding production in the free zones are kept). The aim of this integration, was to reduce bureaucracy, errors and costs at customs by leveraging accelerated clearance and paperless processes. The system operates in all the free zones (19 in total) throughout our country as of June 2019.
e-ATA/TR Program	With e-ATA/TR, all customs procedures of goods entering or leaving Türkiye with ATA Carnet are carried out. With the ATA Carnet, the carnet information for goods coming to Türkiye from abroad is entered into the system, and the carnet information sent abroad from Türkiye is received electronically from the Union of Chambers and Commodity Exchanges of Türkiye (TOBB) System without the need for additional declaration by the obliged parties. The program ensures that ATA Carnet declarations are easily and quickly registered and Carnet records are transferred in both customs administrations and taxpayer records. The e-ATA/TR Program has been launched in all Customs Directorates as of June 2021.
Declarant Registry and Tracking System	The System enables the electronic monitoring and control of information on declarants and persons authorised for direct and/or indirect representation who perform transactions in customs systems, eliminating the risk of unauthorised representation.
Tariff Search (TARA) System	Based on the definition of the goods specified by the declarants with TARA, the ten closest results from the customs tariff classification codes that the goods may be subject to are displayed to the user. After determining the



	tariff classification code, import/export and country criteria are entered and the taxes to be collected in accordance with the export/import legislation and the documents to be attached to the declaration are shown to the declarants.
Laboratory Analysis and Reporting Programme (LARA)	LARA is a programme integrated to Electronic Customs Declaration System-BİLGE which enables the analysis procedures in the customs laboratories to be carried out rapidly and easily in a paperless environment. The transactions are archived and can be monitored by the regional units and the headquarters.
Customs Brokerage Information System	The System files the criminal record, education, civil registration and social security information, and exam entry numbers of customs brokers and assistant customs brokers. With this system, customs brokers and their assistants are supervised more effectively and statistics and reports can be obtained easily. This program also has a screen and disciplinary module designed for the Customs Brokers Association and Regional Directorates.
Document Searching System (BETSİS)	BETSİS was first launched by the Directorate of State Archives of the Presidency in 2004, and then updated and further developed in 2020. Currently, all local and foreign researchers can quickly and easily access catalogue information and/or images of millions of archival materials stored on the institution's website. The number of document images transferred to the system exceeded 65 million by the end of 2023. Thanks to BETSİS, the need for researchers to come to the archives in person from long distances has also been significantly reduced.
Manager Information System (YÖBİS)	YÖBİS is designed by the Human Resources Office of the Presidency (CBİKO) to ensure direct and rapid access of public sector managers to qualified data with the support of data visualisation and reporting tools to providing data for decision-making processes and keep critical data up-to-date. YÖBİS consists of two different modules: the Public-Data (Kamu-Veri) and the Rector Information System (REBİS). The public data module provides information on the results of the factors included in the Public Employee Satisfaction Survey and solution proposals regarding human resources in institutions.
Higher Education Information System (YÖKSİS)	YÖKSİS is a system in which academic units in universities are kept hierarchically; academics working in these units, current students and graduates are monitored and related information is used in decision support systems. Higher education statistics are created using the data collected in YÖKSİS. In addition, student certificates, graduation certificates and transcripts for students and academic certificates for academics can be issued through the eGovernment portal using data from YÖKSİS. CV information entered into the system by academics themselves is shared through the YÖK Academic Portal. In addition, YÖKSİS matches universities with scientific articles and R&D and innovation projects collected from third-party sources to measure academic development.
Electronic Data Delivery System (EVDS)	EVDS is a dynamic and interactive system that presents statistical time series data produced by the Central Bank of the Republic of Türkiye (CBRT) and/or data produced by other institutions and compiled by the CBRT. Data can be reported in xls format or via web service client (json, csv, xml), graphs can be displayed, and data can be received via e-mail by subscribing to the system.
Air Emission Management (HEY) Portal	Türkiye's unique HEY Portal gives decision makers the opportunity to see and understand the air emission inventory profile of cities. Data for selected sources are periodically updated and archived. The portal is structured with an air quality model to enable the use of visual maps. By 2023, air quality maps of all cities have been prepared and used in the





	<p>NEFES (Air Quality Detection in 3D Environment) Project for higher resolution maps. It is envisaged that citizens will have information on air quality emission maps in the region where they live. The maps and outputs produced by the Air Emission Management HEY Portal are integrated and visualized with 3D urban information systems, road network, city topographical information and traffic density data. It is planned to be integrated with the eGovernment soon. AI and machine learning developments will be evaluated for the portal.</p>
<p>Tourism Statistics System</p>	<p>The System generates border and accommodation statistics using data from visitors entering and exiting border crossings and from domestic and foreign visitors staying in accommodation facilities (such as hotels). Additionally, it fulfils citizens' data requests via eGovernment.</p>
<p>Merchant Registration System (İKS)</p>	<p>İKS was launched in 2022n order to streamline the processes related to payment transactions and preventing fraud and malicious use in payments. The System enables the centralised assignment and tracking of merchant codes for merchants offering goods and services through a payment method within the scope of payment services. The participation of banks and non-bank payment service providers that provide payment services to merchants with a payment method that falls within the scope of payment services to the system has been completed. The process of participation of payment service providers that will start to provide such services is being carried out by the Interbank Card Centre (BKM).</p>

### Cross-border infrastructures

The following table lists the European cross-border infrastructures of which Türkiye is part of:

<p>IPA3Portal</p>	<p>The portal is an <a href="#">information management system</a> in use for programming, implementing and monitoring of Instrument for Pre-Accession Assistant (IPA) 2021-2027 funds.</p>
<p>Technical Assistance and Information Exchange (TAIEX)</p>	<p>The <a href="#">TAIEX Mechanism</a> is an institutional building mechanism that provides expert support to beneficiary countries in the transposition and implementation of EU legislation. The applications for TAIEX mechanisms (workshop, expert mission and study visit) have been received and evaluated through the <a href="#">TAIEX database</a> since 2010.</p>

## 4. Digital transformation of public services

### Digital public services for citizens



#### eGovernment Legislation

With [Presidential Decree No. 1](#), the responsibility of coordinating the digital transformation of the public sector was assigned to the DTO. [Presidential Decree No. 48](#) dated 24.10.2019 transferred the eGovernment duties carried out by the Ministry of Transport and Infrastructure of the Republic of Turkey to the DTO. By [Presidential Decree No. 2303](#) dated 26.04.2020, the Ministry of Transport and Infrastructure was also relieved of the task of establishing, operating and managing the eGovernment Gateway. The decree also introduced the position of Government Chief Digital Officer and assigned this position to the Head of the DTO. As a result, the DTO now coordinates all activities related to eGovernment, digital government, cyber security, critical infrastructures, big data and artificial intelligence. On 11.10.2018, [Presidential Circular No. 2018/13](#) was published in the Official Gazette. According to this circular, all public services, including those provided electronically, must be provided according to the Once-Only principle, meaning that all applications by citizens shall be completed expeditiously at the point of application.



#### Digital Türkiye (eGovernment Gateway)

The eGovernment Gateway of Türkiye was inaugurated on 18.12.2008 with 9 integrated institutions, offering 22 services. Since then, it has evolved into the country's largest digital public service delivery platform. By the end of 2023, it reached 65.4 million users, 8 410 services and 1 038 integrated institutions. Notably, significant progress has been achieved since the establishment of the Digital Transformation Office (DTO) in 2018, with key indicators witnessing substantial increases: 108% in integrated institutions, 87% in services offered, 56% in users, and a 329% surge in applications. Ongoing efforts to enhance the eGovernment Gateway focus on expanding and improving service offerings, particularly through the creation of integrated services. These services streamline user access, allowing users to handle transactions conveniently under a single portal. For example, My Vehicles, My Working Life, My Residence, My Inheritance Services and My Military Service are among such services. Aligned with its mission, the DTO collaborates closely with public institutions, local governments, and the private sector to deliver value-added, high-quality, integrated services. A participatory approach drives service development, incorporating user feedback gathered through annual online surveys. These surveys, engaging at least 1 million users annually, yield valuable insights shared with relevant institutions. Notably, the 2023 survey reported an overall satisfaction rate of 94.7%. Key features lauded by users include 24/7 uninterrupted service delivery and single-point access to services.



#### By-Law on the Procedures for the Provision of Public Services

In the context of the implementation of the once-only principle, the DTO has been reviewing the [Regulation on the Procedures and Principles to be Followed in the Provision of Public Services](#), ensuring that no documents are requested by another public institution if the data has already been provided by another public institution. Accordingly, the DTO coordinated the amendments to 42 regulations and 13 communiqués, which were published in the [Official Gazette dated 08.07.2019](#). The revision resulted in the streamlining of 111 processes in order to reduce the time spent on bureaucratic procedures. In addition, a wide range of applications in various fields such as jobs, scholarships, permits, licenses and certificates can now be submitted via eGovernment. Before the transition from eGovernment to Digital Türkiye, the average number of documents required per service was 3.80, which has now decreased to 0.34.



#### TekDurak (One-Stop-Shop)

The One-Stop-Shop (TekDurak) Service Point Project was launched with a view to user-oriented service delivery and streamlining public administration. Within the scope of the project, service delivery channels will be improved and diversified, and access to public services will be facilitated for all citizens, especially disadvantaged groups. In this context, both physical one-







stop-shop service points as well as eGovernment portal-like structures will be adopted and all citizens will be provided with equal access to public services.

- **One-Stop-Shop Service Point v1.0:** Efforts are underway to realise the pilot implementation. The implementation allows the delivery of 32 services of 17 ministries which are offered through the Digital Türkiye (eGovernment) Portal by a representative acting as an intermediary for a real person.
- **One-Stop-Shop Service Point v1.1:** All services offered through Digital Türkiye will be made accessible. In addition to the services, a payment infrastructure with alternative payment options is planned to be implemented.
- **One-Stop-Shop Service Point v1.2:** It is planned to make available integrated financial or commercial services that bring together individual or corporate users, which cannot be provided by other service channels.



### e-Correspondence

The **e-Correspondence Project**, which was initiated to ensure that official correspondence between public institutions and organisations, is conducted securely in an electronic environment under the coordination of the DTO. The package structure has been determined, and the encryption mechanism that will ensure the secure transmission of documents between institutions has been introduced. The prominent features of the e-Correspondence Package are as follows: the package structure that will carry the official correspondence to be transmitted between public institutions and their metadata and electronic signatures has been identified. An encryption mechanism has been established to ensure secure transmission of documents among the institutions. A corporate electronic seal (e-seal) mechanism has been defined to reliably identify the identities of institutions conducting correspondence in an electronic environment. It is now possible to include and remove initials from the e-Correspondence package electronically. It is also possible for public institutions to add a date to the package after all signatures have been placed on the package. Finally, it is possible to use unit identification codes together with institution identification codes for both sending and receiving institutions.



### Public Disclosure Platform (KAP)

Since 2009, all public disclosures to be made by issuers and capital market institutions operating on Turkish markets within the scope of the Capital Markets Law are made through the **KAP**. The Platform is operated by the Central Securities Depository & Trade Repository of Türkiye (MKK), which enables disclosures required by capital markets legislation to be made with electronic signatures. The system uses legal entity identifiers for organisations making disclosures and notifications through electronic certificates. Therefore, companies are obliged to keep a sufficient number of valid electronic certificates to ensure the uninterrupted flow of notifications. In addition to Borsa Istanbul companies, exchange-traded funds, investment companies, pension funds, real estate investment funds, venture capital investment funds, foreign funds and portfolio management companies can also make notifications to PDP. The system covers over 700 companies, 1 000 investment funds and 3 000 users all over Türkiye. It is designed to provide general access to accurate, timely, fair and complete information about Borsa Istanbul companies in a digitally accessible format. 21 data vendors disseminate KAP data simultaneously. In addition, KAP has a search function and is an electronic archive that provides easy access to historical information. On average, 112 500 notifications are published on the KAP annually. Disclosures can be published in English as well as Turkish. PDP data is distributed to recipients via data publishing services, SWIFT message infrastructure and PDP mobile.

## eInvoicing



### eInvoice Application

Launched in 2010, the **eInvoice** system allows users to send, get and submit invoices. With a single format and standard, it provides security, time and cost savings to buyers and sellers. eInvoice is XML-based, in accordance with UBL-TR standards. As of April 2024, the number of taxpayers benefiting from the eInvoice application has reached 1 194 974 and the number of issued e-Invoices has been recorded more than 731 million in 2022. The system is also accessible via eGovernment.

## eHealth and social security





## National Action Plan on the Rights of Persons with Disabilities (2023-2025)

The first National Action Plan for the Rights of Persons with Disabilities (2023-2025), which sets out the vision of “Building an inclusive society where persons with disabilities can realise their potential as equal citizens”, was prepared and put into practice. With the Plan, 316 activities were started to be implemented within the scope of 107 action areas for 31 targets that mainstream disability and take into account the needs of persons with disabilities, which emerged with strong coordination in all areas, multilateral cooperation and the participation of non-governmental organisations representing persons with disabilities. Within the scope of the objectives of “Making transportation services and systems accessible” and “Increasing accessibility to information and communication technologies and electronic service systems” set in the action plan, activities to strengthen access to services for persons with disabilities through digital transformation in public services are also included.



## Regulation on Personal Health Data

Article 378 of Presidential Decree No. 1 defines the procedures and practices to be followed by the central and provincial units of the Ministry of Health and the health service providers and affiliated and related organisations operating under them within the scope of the provisions of Law No. 6698 on the Protection of Personal Data. In addition, the Regulation on Personal Health Data, which was prepared in order to regulate the procedures and principles to be followed in the processes and practices carried out by the relevant organisations within the scope of the provisions of the Personal Data Protection Law No. 6698, was published in the Official Gazette dated 21.06.2019 and entered into force.



## Health Informatics Network

The Health Informatics Network (SBA) is a local health network established across the country to enable institutions and organisations in the health sector to use their resources and health-related data jointly and to transmit data through a reliable and fast channel. Through the Network, data is exchanged between the central organisation and affiliated institutions of the Ministry of Health, provincial health directorates, hospitals, family health centres and other health institutions and organisations. A centralised and closed-circuit system was created using MPLS VPN (Virtual Private Network) technology in which more than 3 700 units are integrated.



## MEDULA

MEDULA is an integrated system developed by the Social Security Institution (SSI) between the general health insurance and health facilities, created to collect billing information electronically and to realise the payment of services without interfering with the internal processes of health facilities. The system is to be used by public hospitals, university hospitals, private hospitals, private diagnostic centres and private treatment centres. Within the scope of Universal Health Insurance, Medula-Hospital, Medula Pharmacy, Medula Personalised Payments and Medula Optics applications gathered under the name of MEDULA enabled individuals to benefit from health services in the best way and health service providers to provide quality, fast and accurate service in all processes of payments to health institutions. A data warehouse has been created. It can generate reports by querying tens of thousands of different data combinations. Access to all services was facilitated by creating a call centre for all citizens with ALO 170.



## e-Pulse System (e-Nabız)

Launched in 2015, e-Nabız is a personal health record system that collects the health records of all citizens on a single platform and provides easy, fast and reliable access and control 24/7. As of today, the number of e-Nabız users has exceeded 73 million, representing 85% of the population. The system is integrated with the eGovernment and also has a mobile application. Citizens can determine which physician can access their health data through their e-Nabız profile. Detailed examination and treatment information such as laboratory results, radiological images, prescriptions, medication information, emergency information and reports can be accessed via mobile phones, tablets or computers, while appointments can be made and blood and organ donations can be made via e-Nabız. With the integration of wearable technologies into the e-Nabız System, citizens can record their health information such as blood sugar and blood pressure via smart wristbands or wireless devices.



### Central Physician Appointment System (MHRŞ)

The Central Physician Appointment System (MHRŞ) is a system in which citizens can make appointments with hospitals, oral and dental health centres, family physicians and family dentists affiliated to the Ministry of Health by calling ALO 182, on the Web, on the MHRŞ mobile application or through other channels (e-Nabız, eGovernment, ALO 184, ALO 191, ESİM, health institutions).



### Reçetem (ePrescription) System

Reçetem manages the processes related to the creation and tracking of all prescriptions by physicians in order to increase the efficiency, quality and speed of the services provided to citizens by the Ministry of Health. The main purpose of Reçetem is to ensure that prescription data is received in a controlled and proper manner. The Reçetem System has been developed to enable physicians to create prescriptions, pharmacists to instantly view the prescriptions created by pharmacists and provide patients with the medicines they need, and to carry out the processes in an integrated manner with the Social Security Institution (SSI) and the reimbursement institution.



### Emergency Health Automation System (ASOS)

ASOS is a system where all processes can be tracked from the transmission of the call to the 112 Emergency Call Centre to the emergency medical team until it is delivered to the hospital. ASOS is a comprehensive software that manages processes from a single point with its integrations to other systems and carries out health services in emergency and disaster situations with its Hospital Coordination and Incident Management System (OYS) modules. The system monitors the number of ambulances used in emergency healthcare services, fixtures, ambulance and medical device malfunction tracking, patients transported by ambulances and procedures performed on patients, medicines and medical consumables in warehouses, healthcare personnel, personnel shifts, trainings, assignments, temporary assignments and National Medical Rescue Teams (UMKE) processes.



### HealthTürkiye Web Portal

HealthTürkiye Web Portal is the umbrella brand of our country in the field of international health services. It was established by the International Health Services Joint Stock Company (USHAŞ) under the Ministry of Health in order to promote Türkiye's health services to the world and add value health tourism within the framework of the vision of the Turkish Century. The aim of HealthTürkiye is to promote our country's healthcare system and all stakeholders operating in the field of international healthcare services in the international arena and to maximise the quality of services provided by stakeholders to health tourists and their relatives within the scope of their activities and to make Türkiye one of the preferred countries in health tourism. With the HealthTürkiye web portal, international health tourists can get detailed information about health services and authorised health facilities in Türkiye and communicate with them through the portal.



### NeyimVar? ("What's the Matter with Me?")

NeyimVar? is an expert system, implemented in 2021, that can access citizens' past health data through the e-Pulse (e-Nabız) System and at the same time initiate an enriched enquiry process based the symptoms declared by the citizens themselves, suggest the health branch and possible diagnosis that the patient should go to, and share the enquiry data and possible diagnoses with the doctor to whom the patient will go.



### Remote Patient Assessment System (UHDS)

Developed by the Ministry of Health, UHDS is an application that allows patients to make an appointment with the healthcare professional they wish to see for the diagnosis and treatment through remote communication tools (tablet, smartphone, computer) without the need for the patient and healthcare professional to be in the same environment. It provides great convenience in accessing healthcare services, especially for patients living in remote or hard-to-reach areas or who are home-bound and bedridden, and for convicts in prisons and detention centres. UHDS was commissioned on 08.11.2023.



### Integrated Social Assistance System (ISAS)

ISAS is an eGovernment system that facilitates all steps related to the administration of social assistance, including application, determination of eligibility, disbursement of funds and audit. Developed in 2010 in collaboration with various government agencies, ISAS integrates data



from 28 different public institutions and provides 120 web-based services. The system consists of over 30 different modules and includes social, economic and demographic data on approximately 60 million people in Türkiye, nearly 70.9% of the population. ISAS also serves foreigners living in Türkiye, such as beneficiaries of the Emergency Social Safety Net (ESSN), the largest EU-funded humanitarian program and the Conditional Cash Transfer for Foreigners, the largest EU humanitarian contribution to education in emergencies.

### Occupational Health and Safety Recording, Tracking and Analysis Program (OHS-KATİP)

OHS KATİP is a software system that enables the recording, monitoring and control of occupational health and safety services which can be accessed via eGovernment. Within the project, the software infrastructure was modified in order to enable public institutions and organisations to perform OHS professional assignment and contract transactions allowing employers or their representatives to undertake OHS services in workplaces with less than 10 employees and classified as less dangerous, and to ensure the integration of workplace physician information with the Social Security Institution (SSI) database.

## Other key initiatives

### Authorisation for the Implementation of Investment Incentive Certificate Transactions in the Electronic Environment

The Communiqué on Authorisation for Electronic Execution of Investment Incentive Certificate Transactions was published in the Official Gazette on 31 May 2018.

### Law regarding the Improvement of the Investment Environment

The Law No. 7099 regarding Amendment of Certain Laws for the Improvement of the Investment Environment was published in the Official Gazette on 10.04.2018, including several articles referring to the digitisation of public data and data exchange electronic platforms.

### Regulation regarding the Activities, Studies and Auditing Principles of the Data Storage Organisations

The Regulation regarding the Activities, Studies and Auditing Principles of the Data Storage Organisations was published in the Official Gazette on 19.09.2018. The purpose of this regulation is to determine the procedures and principles regarding the obligations of the authorised data storage organisation, the manner in which the information is to be reported to the data storage organisation, and the tasks to be performed by this organisation.

### Regulation Amending the Prevention of Laundering Proceeds of Crime and the Financing of Terrorism

On 01.05.2021, the Regulation on The Amendment of the Regulation on the Compliance Program with the Obligations Related to the Prevention of Laundering Proceeds of Crime and Financing of Terrorism entered into force. With the amendment, it has been determined that crypto asset service providers are liable under the Regulation on Measures Regarding the Prevention of Laundering Proceeds of Crime and Financing of Terrorism.

### eTax

The Ministry of Treasury and Finance implemented a nationwide communications network to streamline administrative workflows and allow citizens to submit their tax returns online (eTax). The system connects tax offices, regional finance offices and tax inspector offices of the Revenue Administration. Citizens can submit tax returns via the internet and call up their tax file online whenever they want. All tax data are stored centrally in a data warehouse system, and access to the system is secured by the use of digital signatures and encrypted data transfer via a Public Key Infrastructure (PKI).

### Electronic Data Submission (e-Viz)

The eViz System, which was developed by the Ministry of Treasury and Finance, was implemented in 2023 in all audit offices. eViz is a system that securely provides electronic books and documents to tax inspectors conducting audits. The aim of the eViz application is to shorten



the examination period of the Tax Inspection Board, to facilitate the receipt of e-ledger and e-document files from taxpayers in different cities, and to save public resources and time due to the reduction of tours. Moreover, taxpayers are prevented from submitting incorrect data in incorrect formats, thus labour and time savings is achieved. The benefits of the application for citizens can be listed as the ability of citizens to submit electronic books and documents 24/7 from wherever they are without disrupting their activities, the ability to track the stage of the submission process, and the ability to manage the submission processes of all authorised taxpayers through a single system. In addition, large-sized electronic files can be submitted and authorised persons (representatives/proxies) can easily perform the transactions.

### National Judiciary Informatics System (UYAP)

UYAP, developed by the Ministry of Justice IT Department, serves as a centralised eJustice information system ensuring a fast, reliable, and accurate judicial system encompassing judicial institutions and other affiliated government departments. With online connectivity and correspondence in courts. All information is transmitted digitally. Judges, prosecutors, lawyers, and citizens can access case information, file requests, and review files through respective portals using e-signatures. Private and public institutions can monitor their cases through the Institutional Portal, while experts can access case information via the Expert Portal. Users can access technical or personal trainings through the e-Learning Portal, and execution sales processes are transparently conducted in the electronic environment via the eSales Portal. The Judicial Registry Information System (JRIS) was renewed in accordance with the Ministry of Justice's Strategic Plan (2019-2023) and DTO standards, allowing for digitisation of criminal record erasure/correction procedures, streamlined citizen applications through eGovernment, and provision of criminal record certificates in 43 languages. Additionally, business intelligence and reporting tools enable the production of more qualified statistics.

### Presidential Communication Centre (CİMER)

CİMER is a channel through which citizens can request documents and information online, as well as make comments and suggestions to public institutions. It also enables citizens to communicate their demands, suggestions and complaints to public institutions. The application can be cited as a best practice for citizen participation and open government. The main objectives of CİMER are (i) to strengthen communication between the State and citizens in the context of participatory democracy; and (ii) to contribute to an understanding of public administration that ensures transparency, accountability and citizen satisfaction. It also provides citizens with information on judicial and legislative authorities on matters not related to administrative proceedings. With CİMER, problems arising in the provision of public services can be detected immediately.

### Barrier-Free CİMER

In order to allow all citizens to benefit from CİMER, the system was integrated with the **Barrier-Free 112** application starting on 1.09.2022. It allows visually impaired citizens to use screen readers, while hearing and speech impaired citizens can easily create applications by connecting to a remote sign language interpreter. This project aims to improve access to public institutions and ensure equal opportunities in social life by guaranteeing equal use of petition and information rights by approximately 3 million disabled citizens.

### Supreme Election Council IVR (Voice Response System)

The **IVR system**, which was put into service in June 2022, provides 24/7 services to citizens about their voter status, where to vote, the voting procedures and principles, and information about the nomination procedures for candidates and whether they are assigned to the ballot box committee.

### Disinformation Reporting Service

The **Service** was activated in 2023, with paging, filtering, and security measures to effectively combat disinformation. While the web interface offers a user-friendly experience, the mobile application integration has facilitated the sending of reports.

### State Information System (DES)

DES is a platform for following, translating, and publishing news about significant developments in our country and the world, covered by national, local, and international media.



In this context, over 600 national and local newspapers and magazines, along with 4 major international agencies and more than 400 publications, are followed. The news in question is obtained from reliable sources through subscription systems and advanced filtering and search options, enabling accurate and quick scanning. Additionally, local broadcasters can upload their broadcasts to the system with the Anadolunun Sesi (Voice of Anatolia) application, which is integrated with DES. Translated into 29 languages, the publications provide direct information to public institutions and organisations, as well as relevant authorities and entities. With its technological and user-friendly interface, the system provides an up-to-date and comprehensive archive.

### Digital Publishing

As part of the [Publications by the Directorate of Communications of the Presidency](#), current developments in the fields of international relations, political science, public administration, communication, public relations, media, history, culture, and the arts, as well as various topics, are evaluated from a multi-faceted perspective and compiled into books in different languages. Having reached more than 100 publications as of the end of 2023, the publications are presented to those who wish to access them digitally in 13 categories.

### Digital Services for Media Members

The Directorate of Communications of the Presidency undertakes significant efforts to optimise the working conditions of members of the press, contribute to their professional development, and solve the problems they encounter in the practice of their profession. In addition to providing important services for our media, such as press cards, press traffic cards, and service-stamped passports, our activities also cover press accreditation, guidance, information, and transportation services on the ground at events organised by our Directorate or other public institutions. In this context, [applications for programme accreditation and press cards](#) are submitted electronically via eGovernment and the website of the Directorate.

### Kulak Ver (Listen) Project

A website and mobile application have been created for the [project](#), which provides narration and presentation through audio and visual description methods for users of all ages, especially disabled citizens. The purpose of the application is to reduce the communication barriers these individuals encounter in daily life and to enable a more active participation in social life.

### AİLEM Barrier-Free Communication Centre

In order to eliminate the problems arising from the communication barrier for hearing impaired individuals and to facilitate their lives, the Ministry of Family and Social Services has started the [AİLEM Barrier-Free Communication Centre](#). The special call centre eliminates the communication barrier of hearing-impaired citizens in processes such as education, participation in social life, working life, learning and using legal rights, and benefiting from public services. The AİLEM Barrier-Free Communication Centre started to operate with Turkish Sign Language interpreters in the first stage.

### Parliamentary Archive System (PAS)

PAS was developed by librarians at the Library and Archives Department of the Turkish Grand National Assembly (TGNA). With the system, parliamentarians, parliamentary staff and researchers can access and gather information from digitalised documents. Also, they can have access to the archival materials on the application, from 1908 until now. The system also has an authorisation mechanism for internal department use. The goal is to share open materials with the public within the next six months from the TGNA web platform.

### Consumer Information System

The [Consumer Information System \(TÜBİS\)](#) was established in 2010 and renewed in 2017. TÜBİS provides consumers with the opportunity to submit their complaints to the Consumer Arbitration Committees electronically via eGovernment. Via TÜBİS, consumers are also able to track their applications and the decisions made by the Committees. Moreover, the system was integrated into UYAP, enabling the exchange of application files and decisions between Consumer Arbitration Committees and Consumer Courts.





### Service Information System (SERBIS)

According to the Consumer Protection Law No. 6502 and the After-Sales Services Regulation, manufacturers and importers are obliged to provide after-sales assembly, maintenance and repair services for the goods they produce or import, during the service life determined by the Ministry of Trade. It is obligatory for companies with the After Sales Service Qualification Certificate approved by the Ministry to provide after-sales services. The Service Information System (SERBIS), which was prepared in order to ensure correct and easy access to information about authorised service stations where manufacturers and importers provide after-sales service to consumers, and to prevent grievances caused by fake services that present themselves as authorised services, was put into use in October 2020.

### eDeclaration

eDeclaration is an application provided by the Ministry of Treasury and Finance, enabling citizens to make or accept declarations, announcements and attachments online. The application is integrated with external systems, such as those of banks, allowing for data to be exchanged. As of January 2024, the number of eDeclarations increased by 30% in the last 5 years.

### ePlan Automation System

The ePlan Automation System is a corporate GIS based web application where institutions and organisations involved in urban planning processes in Türkiye contribute to planning services within the scope of their roles and authorities. From the urban plan proposals of the city planners to the execution of the relevant spatial plans by the institutions authorised to approve the plans, the activities of all stakeholders and the documents they prepare can be accessed through the system.

### WebTapu System

Via the WebTapu System, it is possible to apply for any kind of land registry transactions, including sales, lien and transfer, and to send the required documents without physically having to go to the land registry directorate. Property owners can view the details of their property, obtain the copies of their title deed, lien certificate, etc., and authorise someone else (buyer, etc.) to view the property details. Citizens could file an application by sending their documents electronically, receive SMS about any missing document and information, learn about which phase their application is currently in through transaction inquiry, and pay their fees and circulating capital fees digitally. Individual, corporate, foreign and property valuation portals have been put into service.

### TAKBIS 2020 Software Project

The TAKBIS 2020 Software Project is a project designed to ensure the development / update / integration of software that has been planned to renew the TAKBIS project, to integrate land registry and cadastre procedures and to ensure its integration with systems, networks and services inside and outside the institution. Consequently, it aims to ensure the sustainability of TAKBIS, as the Institution's information system, by making sure that it is compliant with the developing technology, it is efficient, equipped with an integrated logic, and makes use of corporate software development standards.

### Land Registry And Cadastre Services Abroad

Land Registry and Cadastre Services Abroad are intended to enable Turkish citizens living abroad and foreign nationals to carry out the land registry and cadastre transactions and procedures related to the property in Türkiye from the country in which they are located. It is planned to open 12 representation offices in 10 countries. Currently only the Berlin land registry and cadastre unit provides services.

### Work Permit Application System for Foreigners

The Ministry of Labour and Social Security (MoLSS) established the Work Permit Application System (eİzin) enabling employers to submit work permit applications for foreign labour force online via the eGovernment. All relevant transactions on work permits, such as notifications, permit cancellations, permit extensions, permit card renewals and objections, are carried out via the system using eSignature. The eİzin system is integrated with the digital systems of



approximately 30 public institutions and has minimised the information and documents required from applicants.

### Work Permit Exemptions Application System for Foreigners (e-Muafiyet)

According to the Regulation on the Implementation of the International Labour Law, foreigners within the scope of work permit exemption are given the opportunity to apply for exemption through a fast-track application process. The system was established by the Ministry of Labor and Social Security (MoLSS) and is integrated with the eGovernment. It allows foreigners to apply from abroad without having an e-signature. It is also integrated with the systems of other public institutions such as the eİzin system.

### Systems used within Public Employment Services (PES)

The Public Employment Agency of Türkiye (İŞKUR) provides 24/7 services through various digital platforms, including an e-transformation system for staff, the CGS (Client Guidance System) used in provincial offices; e-branch system for jobseekers and employers, service points, the Alo 170 Call Centre, and virtual fair platforms. İŞKUR provides 16 services to citizens through eGovernment and integrates with many public institutions. In addition to the existing digital services and platforms, the Mobile Application Project, which will enable the services provided via e-branch to be offered on Android and IOS platforms by 2024; the Financial Automation Digital Transformation Project with TÜBİTAK and two different Artificial Intelligence Projects are ongoing. With these projects, İŞKUR will reach a new stage in digital service delivery. The basic services provided by PES such as job vacancy posting; job posting suitable for CVs; training application; unemployment benefit and short-time working allowance application; and appointment with job and vocational counsellors are integrated with eGovernment.

### SEB-ATLAS – Spatial Management Automation of Turkish Free Zones

Land planning and construction processes of 18 Free Zones are carried out through the GIS and web-based application: SEB-ATLAS. The system is integrated with national data and map services in accordance with OGC standards.

### Consumer Complaint Management System

The System is implemented by the Information and Communication Technologies Authority (BTK) to resolve consumer complaints in the electronic communications and postal sectors in a faster and more effective manner. Consumer complaints are recorded electronically and the BTK can use these records as input for its regulation and investigation activities.

### Population and Citizenship Affairs Appointment System

The Appointment System was developed to deliver the services of the Directorate General of Population and Citizenship Affairs in order to save time and prevent congestion in Civil Registry Directorates. An average of 300 000 appointments are made per day via the Appointment System for services such as Turkish ID card, driver's licence, passport, address registration, new birth, other civil events, add driver's license to ID card and citizenship procedures.

### eResidence

The eResidence system was established by the Presidency of Migration Management in order to carry out the residence permit procedures more quickly and effectively. With this system, foreigners who want to apply for a residence permit can carry out this process online. With the latest update, the application status and residence permit card printing processes can also be carried out by foreigners through the eResidence system.

### Migration Registration System (GöçNet)

GöçNet is a closed-circuit corporate application used in the Presidency of Migration Management, where all works and transactions related to foreigners are carried out. The system includes 34 modules such as Residence Permit, International Protection, Temporary Protection, Statelessness, Entry Ban, Deportation and Irregular Migration modules, which are equipped with smart features or capabilities and prioritise information security. GöçNet continues to be developed in a controlled manner in line with current needs. Services are also available through eGovernment.





### eApplication infraSystem

The e-Application infraSystem, used by the central and provincial organisations of the Ministry of Interior is a system used by citizens to carry out their transactions without the need to go to the relevant unit. e-Application System includes 101 services offered to citizens, NGOs and the private sector.



### eApplication for Capital Market

The Capital Markets Board of Turkey (CMB) is the first e-Application system phase for capital market institutions, organisations and publicly held companies to submit applications via the eGovernment Gateway. The system is expected not only to simplify and fasten the process but also to enable pre-processing and tracing every step of applications.



### E-auction System (E-ihale Sistemi)

The Ministry of Trade carries out the processes for the disposal of goods and vehicles stipulated under the Customs Law No. 4458 and the Anti-Smuggling Law No. 5607, and one of the disposal methods for these goods and vehicles has been the sale by auction through the e-auction since 2014. Launched in 2019, the system can also be accessed via eGovernment. Real and legal persons wishing to participate in auctions can become members of the system by performing all their transactions electronically. They can participate in tenders and carry out payment transactions in a transparent environment where everyone can access and compete equally, without being affected by geographical limitations.



### QR Code Switching System

The Regulation on the Generation and the Use of TR QR Code in Payment Services, which entered into force on 21 August 2020 determines the rules applicable to payment service providers and merchants in case QR codes are used in payment services within the scope of the Law on Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions No. 6493. By establishing TR QR code standards, this Regulation provides interoperability between payment service providers. Within the scope of this Regulation, BKM (Interbank Card Centre) has established the QR Code Switching System to ensure the transfer of the QR code and the information contained in it between payment service providers when needed.



### BİLGE - Electronic Customs Declaration System

The BİLGE System and other electronic customs applications, which enable all customs procedures to be carried out electronically in real time from the entry of goods into the customs area to their exit, are being developed in a more user-friendly manner to meet the needs of the modern age in line with the goal of strengthening the digital infrastructure. In addition, BİLGE can be accessed from anywhere with an internet connection, from a single access point and through eGovernment. With the mobile applications developed within the scope of BİLGE, customs processes can be easily monitored by all stakeholders.



### Paperless Customs

Paperless Customs aims to increase and facilitate efficiency in customs procedures by switching to a fully digital and paperless system, thus eliminating the loss of time and cost associated with the submission and control of documents on paper. The project started to be implemented on 30 April 2019 for exports and on 1 February 2023 for customs warehouse operations. Within the scope of imports, a pilot application covering certain groups of goods imported from the EU was launched.



### Intellectual Property Rights (IPR) System

IP right-holders or their representatives lodge an application for action with their e-signature on IPR System to ensure that goods suspected of infringing IP rights are protected at Turkish customs.



### Vehicle Tracking Program No. 1 (Vehicle-1 Program) and No. 2 (Vehicle-2 Program)

The procedures related to foreign-plated private vehicles brought into the Turkish Customs Area by Turkish and foreign nationals residing outside the Turkish Customs Territory are carried out in accordance with the Customs General Communiqué on Temporary Imported Vehicles (Serial No:



1), and these vehicles are granted a period of up to 730 days. The tracking of these vehicles is done through the Vehicle-1 Program.

### Collection Tracking Programme

Within the Collection Tracking Program, all collection stages from the issuance of additional fees and penalty decisions to the issuance of refund or remission decisions, payment or transfer to the judicial authority, and integration with the relevant systems/programs were ensured. The Reimbursement and Remission Request Management System, which enables the electronic submission of the Reimbursement or Remission Application Form and annexed documents required for applications, was launched on 1 July 2020.

### e-Confiscation System

E-Confiscation, used by customs, banks and tax authorities, aims to track and collect finalised customs receivables by determining the registered goods, rights and receivables in the name of customs debtors and conducting enforcement procedures. The project enables the execution of processes that facilitate the identification and confiscation or removal of the public debtor's rights and receivables in vehicle registration records, land registry records, and banks.

### Customs Tax & Penalty Debt Inquiry System

In line with the Ministry of Trade's goal of digitising customs procedures, the **Customs Tax and Penalty Debt Inquiry System** was launched on 8 November 2021. This system allows the electronic inquiry of tax and penalty debts arising from customs procedures without the need to apply to customs authorities individually, eliminating bureaucratic processes and facilitating access to information.

### Electronic Notification System

Starting from 5 November 2018, the Ministry of Trade began electronically notifying documents and administrative sanction decisions that need to be delivered to concerned parties. This move aimed to achieve paper, time, and energy savings, enhance information security and personal data protection and improve service quality.

### Confirmation & Tracking of Guarantee Letters Electronically

Launched on 28 October 2019, the complete electronic transfer of guaranteed letters ensures faster processing of guarantee-related transactions and prevents the unauthorised use of guarantee letters. The **Letter of Guarantee Status Inquiry** system allows customs administrations to electronically query the accuracy of guarantee letters before the introduction of electronic guarantee application, preventing the use of counterfeit guarantee letters. The electronic system has been in use since 5 June 2015.

### Electronic Communications Infrastructure Information System (EHABS)

EHABS collects geographical information on electronic communication infrastructure in a single centre, displays this information on a map, contributes to the effective and fast execution of the processes regarding the right of way and facility sharing, monitors the right of way processes instantly, helps to determine policies regarding the expansion of broadband access within the scope of universal service and contributes to the decision support system of other institutions.

### Agriculture in My Pocket (Tarım Cebimde) Mobile Application

**Agriculture in My Pocket** is a mobile application developed by the Ministry of Agriculture and Forestry, which enables the works and transactions related to agricultural production to be carried out with a single click on the mobile phone. It will be transformed into a 'Super App' that can be used not only by farmers but also by all citizens. The application is constantly updated and in the latest version 3.0, Agricultural Irrigation and Hunting menus have been added.

### National Immovable Inventory System

Within the scope of **Law No. 2863 on the Protection of Cultural and Natural Assets**, maps, documents and studies prepared within the scope of the identification and registration services of registered immovable cultural assets within the scope of the Law No. 2863 on the Protection of Cultural and Natural Assets will be digitised and all works and transactions of the board directorates will be automated by being uploaded onto databases.



### E-Notification V.2 Project

With the **E-Notification V.2 Project**, all kinds of notifications to be made by employers to citizens through the Social Security Institution (SSI), such as monthly bonuses and service certificates, are made electronically through the digital infrastructure.



### Patent and Trademark electronic application system (ePats)

**ePats** is a system integrated within eGovernment, where citizens and attorneys can make Patent and Utility Model, Trademark, Design and Geographical Indication applications regarding industrial property rights online. With the Electronic Notification System (ETEBS), more than 500 000 official letters are notified through the system annually, and with the integration of the E-Accrual system, wage transactions are also carried out through the current application. Also, the Digital Transformation Project was launched at the Turkish Patent and Trademark Office (TürkPatent) to utilise and benefit from the contributions of technological innovations. Steps are being taken in line with the country's digitalisation goals, such as the use of AI in Industrial Property processes and the replacement of the ERP software project, whose commercial licensed applications are being carried out at TürkPatent within the scope of the **Circular on the Use of Open Source Software in Public Sector (2023/13)**, with open source code equivalents.



### Activities of Small and Medium Enterprises Development Organisation (KOSGEB)

In order to reduce the documents requested from SMEs and entrepreneurs and to simplify the legislation, the **KOSGEB Support Programs Regulation** was amended and entered into force after being published in the Official Gazette under No. 29932. With this amendment, all notifications and applications can be made electronically as well as in writing, and all documents and information within the scope of support programs can be received electronically. In this context, protocols were signed with 12 institutions and the data held by these institutions were obtained. All support application and implementation processes were started to be carried out through eGovernment with identity verification as of 22 February 2018. As of 19 March 2024, 38 services are offered in eGovernment. Only 4 of the documents in these services are physically requested and all other information and documents are received electronically.



### Diplomatic Portal

The **Diplomatic Portal**, through which more than 20 000 diplomats residing in Türkiye can perform all their diplomatic transactions online, was developed and put into service with the resources and capabilities of the MFA.



### Konsolosluk.Net

Within the scope of services for citizens living abroad, consular automation was introduced in 1988 and currently 74 different transactions can be performed end-to-end online through the Konsolosluk.Net system in all diplomatic missions. Currently, consular services are provided to approximately 6.5 million Turkish citizens abroad through this system.



### Konsolosluk.gov.tr

Turkish citizens living abroad can make online appointments for their consular services through the **Konsolosluk.gov.tr** website. They can select the nearest diplomatic mission and get information about all the procedures depending on the transaction they want to perform. The website offers accessible communication for persons with disabilities and direct access to the





consulate call centre. Besides konsolosluk.gov.tr, Ministry of Foreign Affairs (MFA) has initiated the process to add 5 new online public services:

- Online consular services;
- MFA consular services appointment;
- Visa regimes;
- Abroad emergency notification; and
- My consular transactions



### Electronic Visa (e-Visa)

The first and most widespread **electronic visa application** in the world was launched by the MFA in 2013 with fully electronic payment. More than 38 million e-visas have been issued.



### e-Human (e-İnsan)

**e-İnsan**, an integrated digital platform launched by the Human Resources Office of the Presidency in 2022, aims to enhance accessibility and equal opportunities by integrating innovative career tools into a mobile application. It provides a range of technology and human-oriented services in a user-friendly and transparent manner, covering all career needs from education to retirement. Integrated with eGovernment, e-İnsan consolidates various applications under a single platform:

- **Career Gate Public Recruitment Platform (CG)** streamlines public recruitment processes across all ministries and affiliated organisations, to increase effectiveness in public recruitment;
- **National Internship Program (NIP)** ensures equal internship opportunities for all university students, with over 840 000 applications, 570 000 offers, and 340 000 completions;
- **Talent Gate (TG)** connects higher education students and recent graduates with employers for career development, benefiting over 12 000 employers;
- **Distance Learning Gate (DLG)** provides digital training for public employees, facilitating over 36,000 training activities, involving 2.5 million employees, and reducing greenhouse gas emissions by around 265 000 tons through online learning;
- **YTNK TV** offers free digital education to empower youth, with courses covering IT skills, occupational health and safety, and career planning. The career planning course has been integrated into the curricula of 189 universities, benefiting nearly one million students;
- **UNI-VERI** assesses recent graduates' labour market performance and guides higher education policymakers in decision-making processes; and
- **Counsellor Information System (DABIS)** enables psychological and guidance counsellors to provide services to students based on objective data in their choice of profession.



### Complaints/Views Service

The **Complaints/Views Notifications Service** is a Radio and Television Supreme Council (RTÜK) service provided via eGovernment, for Turkish citizens' to easily submit complaints or views regarding the broadcasts. Notifications from this service are combined with notifications from other platforms such as RTÜK's official website Complaint/Opinion Form, RTÜK Mobile and RTÜK Call Centre and classified according to the relevant laws and regulations by an internal application using AI technology.



### Electronic Information Letter For Respondent Statistical Units

The Turkish Statistical Institute (TURKSTAT), within the scope of the Turkish Statistical Law No. 5429, organises surveys on various subjects in certain periods in order to determine the changes in the economic and social structure of our country. The results are announced publicly. Before any research or survey is conducted, an information letter is sent to the statistical units participating in the survey. This information letter includes the duties of TurkStat as set out in the law, the methodology of the survey, the method of data collection, the obligation to respond, the information that data confidentiality is guaranteed by law, the contact information of the organisation, a statement of thanks for participation, etc. These information letters were sent to the participants in the form of printed letters through the national postal service until 2022. As the unit costs of printed letters increased significantly after 2022, TurkStat developed a software program and started to send electronic information letters using e-mail and SMS through this software program. As a result of this transformation, savings were achieved in terms of time, labour and cost. In addition, the rate at which information letters reach respondent units has also increased, thus positively affecting data quality.



### Activities of Ministry of Energy and Natural Resources (MENR)

To support the Central Organisation of the Ministry of Energy and Natural Resources and its affiliated institutions / organisations Server, Data Storage Unit, Data Backup System, Electronic Mail System, Document Management System, Database Systems, Messaging System, File Sharing and Storage System and other IT activities are being centralised. In order to ensure, physical security and cyber security are deployed in a single Data Centre. A lean, manageable, secure, continuous, savings-oriented Data Centre was established with the aim of centralised management, monitoring and operation and reducing duplicate expenses. Central internet output was provided, the Energy Cloud was commissioned, and some other common applications were centralised.



### Vehicle Pre-Declaration Application

The application can be accessed via the internet and eGovernment. It allows individuals who wish to enter Türkiye with their vehicles to input the information required for the Vehicle-1 Program using computers or mobile devices such as smartphones and tablets before their travels.



### Exhaust Gas Emission Electronic Measurement Tracking System (EGEDES)

EGEDES measures the exhaust emissions of around 10 million vehicles annually and uses the data for air quality models and to calculate the impacts of road transport emissions. The system will be modernised with new technologies to provide more value-added service to citizens for better implementation of air quality management policies and measures.



### eGovernment Integration of MuseumCard

All citizens with a Republic of Turkey ID can easily obtain their MuseumPass through the eGovernment system. With this service, citizens who are entitled to receive free and discounted MuseumPass, such as the elderly over the age of 65, children under the age of 18, relatives of veterans and martyrs, teachers and students, can receive their digital cards instantly through the eGovernment system without submitting any documents.

## Digital public services for businesses



### Amendment of Law No. 6563 eCommerce Legislation

Law No. 6563 on eCommerce of October 2014, establishes the legal base for eCommerce activities and clarifies the definitions of eCommerce, commercial communication, service provider and intermediary service providers. The Law regulates the principles and procedures regarding eCommerce, the liabilities of eCommerce service providers and intermediaries. The amendments to the Law adopted on July 2022 entered into force on 1 January 2023, together with its main secondary regulation, the Regulation on Electronic Commerce Intermediary Service Providers and Electronic Commerce Service Providers. Amended by Law No. 7416, it pays particular attention to the market power of marketplace platforms and introduces the concept of escalating obligations based on net transaction volume.



### Law No. 7194 on the Amendment of Certain Laws Including Decree Law No. 375

Following Law No. 7194, dated 7 July 2019, a digital service tax was introduced on the income obtained from advertisements, voice and visual digital contents presented by digital service providers on digital media, and the provision of digital media where users can communicate with one another. The subject of the digital service tax is the digital service provider.



### Public Financial Management and Control Law No. 5018

Law No. 5018 regulates the structure and functioning of public financial management, preparation and implementation of public budgets, accounting and reporting of all financial transactions and financial control in order to ensure effective, economic and efficient acquisition and use of public resources, accountability and financial transparency. The Integrated Public Financial Management Information System Project (BKMYBS) was commissioned by the Ministry of Treasury and Finance for the execution of the functional processes specified under the Law.





## Regulation on Electronic Commerce Intermediary Service Providers and Electronic Commerce Service Providers (eCommerce Regulation)

Initially published in 2015 in the Official Gazette, the Regulation on Service Providers and Intermediary Service Providers in Electronic Commerce aimed to establish the procedures and principles for the information that service providers must keep on their network and provide buyers, ensuring sufficient information about the e-commerce platform. Following amendments to Law No. 6563 on eCommerce, this regulation underwent comprehensive revisions and was replaced by the Regulation on Intermediary Service Providers in Electronic Commerce and Electronic Commerce Service Providers in 2022. The new Regulation focuses on defining the activities, audits and commercial relationships of electronic commerce intermediary and service providers to foster an effective and fair competition environment and advance electronic commerce.



## Regulation regarding the Principles of Implementation of the Integrated Public Financial Management Information System

The Regulation regarding the Principles of Implementation of the Integrated Public Financial Management Information System was published in the Official Gazette on 26 June 2018. The purpose of this regulation is to determine the procedures and principles regarding the obligations of the authorised data storage organisation, the manner in which the information is reported to the data storage organisation and the tasks to be performed by this organisation.



## Integrated Public Financial Management Information System Project (BKMYBS)

BKMYBS encompasses a suite of integrated systems that facilitate various functional processes related to public financial management. Initiated in 2017 under the coordination of the Ministry of Treasury and Finance, with contributions from stakeholder public administrations, the project streamlines budget preparation, expenditure, accounting, and transaction reporting.

Activities carried out within the scope of the BKMYBS are as follows:

- Expenditure Management System (EMS): the system facilitates end-to-end expenditure transactions of central government entities, revolving fund enterprises, and funds using e-document and e-signature technologies;
- Government Accounting Information System (GASIS): it manages accounting transactions for central government entities, revolving fund enterprises, and funds. It finalizes payment processes using e-document and e-signature technologies, forming the basis for financial statistics, reporting, and final account preparation;
- Decision Support System: it generates periodic and real-time information and reports on budget, accounting, expenditure, movable assets, and personnel for senior management and decision-makers through a data warehouse;
- Public e-Invoice Application: it transmits electronically formatted invoices, following international standards, issued by or on behalf of the public to relevant parties;
- Public e-Collection Application: it generates accruals for collections specified in public administration legislation and facilitates digital collections through integration with banking channel; and
- Asset/ Movable Property Registration and Management System: it is the system where the movable assets to be procured by public administrations are recorded, tracked and reported in financial processes.



## Consult to Commercial Representatives application New Computerised Transit System (NCTS)

The common transit procedure (CTP) is used for the movement of goods between EU Member States, EFTA countries (Iceland, Norway, Liechtenstein and Switzerland), Türkiye (since 1 December 2012), the Republic of North Macedonia (since 1 July 2015), Serbia (since 1 February 2016), the United Kingdom (since 1 January 2021), and Ukraine (since 1 October 2022). The procedure is based on the Convention of 20 May 1987 on a common transit procedure. The legal basis of CTP is the Common Transit Convention (CTC) of 20 May 1987. CTP provides for customs and excise duties and other charges on goods to be suspended during their movement. Türkiye became party to CTC on 1 December 2012. The module called NCTS has been used Museum Pass for CTP and national transit procedure since 2012. This system enables economic operators and customs authorities to lodge transit declarations and finalise transit movements electronically.



Thanks to this system, each stage of transit operations can be monitored by the relevant customs authorities and the holder of the procedure through this electronic environment.

### National Market Surveillance and Inspection Information System (PGDBİS)

PGDBİS was established to collect the results of market surveillance and inspection (MSI) carried out by 9 public institutions under the coordination of the Ministry of Trade in a single pool and to contribute to the preparation of risk-based inspection programs by making these data available to others. In this context, the legal infrastructure was provided with the [Regulation on Recording and Notification of Market Surveillance and Inspection Results and Measures](#) entered into force after being published in the Official Gazette No. 28720 dated 27 July 2013.

### Electronic Commerce Information System (ETBİS)

The [Communiqué on the Electronic Commerce Information System and the Obligations of Notification in Electronic Commerce](#) entered into force on 11 August 2017. It is aimed to continuously compile and track data and indicators for the creation of healthy and sustainable policies, strategies and actions in eCommerce. Within the scope of this communiqué, electronic commerce enterprises shall register with [Electronic Commerce Information System \(ETBİS\)](#) before they start their activities and will notify the system about the platforms that they operate. ETBİS was put into service on 4 December 2017.

### Electronic General Assembly System (eGEM)

The [Electronic General Assembly System \(eGEM\)](#) has been an important improvement in providing safe and low-cost means for the organisation of general assemblies and for the exercise of shareholder rights. eGEM, operated since 2012 by the Central Securities Depository is an online platform that enables shareholders to exercise their rights in general assemblies and helps corporations manage general assembly procedures. Corporations can publish meeting calls and proxy materials, prepare lists of attendees, calculate votes and complete reporting over eGEM.

### MEYDİP (Spatial Management and Digitalisation Project for Organised Industrial Zones)

Launched in 2020, the [MEYDİP](#) project brings all business processes related to Organised Industrial Zones to the digital environment and enables applications for planning, expropriation and surveying to be accepted digitally. Within the project, the processes required for investors to invest in Organised Industrial Zones are managed through digital platforms; investors can carry out the search for vacant parcels, land selection and application processes electronically without being physically present on site. MEYDİP makes a significant contribution to the digital transformation of Organised Industrial Zones and increases their competitiveness by making it easier for investors to do business.

### Receiving Voluntary Recall Applications Digitally

By initiating voluntary recall applications for products that are risky or that do not comply with technical regulations via eGovernment, manufacturers can accelerate and facilitate the process that must be submitted to the relevant provincial organisation in accordance with the legislation.

### Market Surveillance Tablet Application

The Tablet Project, which allows the inspections to be documented digitally and central units to follow the inspections instantly, has been rolled out across Türkiye as of 2020. Therefore, the actions to be taken by the Ministry of Industry and Technology were carried out faster and more effectively. As of 2022, various updates and improvements (new process additions, improvements in the reporting module, updates to the voluntary recall page) were made as a result of the problems encountered in the audits. In addition, checklists were created on the database for audits to be carried out by auditors via the tablet application.

### Turkish Standards Institution (TSE) Data Integration

Data integration work was carried out between the Ministry of Industry and Technology and TSE to speed up the testing and inspection processes of products that are sampled and sent for testing with suspicion of unsafe products and to ensure that the process is followed in a digital environment.





### Tourism Facilities and Investment Certification System

With the **System**, also available through eGovernment, business owners can apply for a Tourism Facility Management Certificate or Tourism Investment Certificate and track their previous applications.



### Tourism Airway Customs Declaration System (HGBS)

HGBS aims to eliminate the use of paper documents and duplicate transaction steps that slow down the customs clearance processes carried out by air and to realise the electronic exchange of information between parties involved. The goals of the system are simplifying airway customs clearance processes by supporting the processes with mobile applications, reducing transaction times, lowering costs and monitoring the processes in a transparent manner. As the first step of the Digitisation of Airline Transactions Project, the pilot implementation of the HGBS, which enables the Airline Declaration Form to be submitted electronically, was carried out at Esenboğa Customs Directorate on 25 January 2024 and it is aimed to be put into operation at all airports in the near future.



### Accreditation Process Operating System (ASİST)

ASİST is a system developed by the Turkish Accreditation Agency (TÜRKAK) through which all accreditation processes of institutions and organisations can be carried out. Accreditation applications can be made online through ASİST, and the accreditation agreement and application form can be signed with an electronic signature without the need for any printed documents. Reports and forms created from remote audits and field audits to the decision-making process can be filled in and signed online. Accredited institution search, which enables the query of information such as accreditation standards and accreditation scope of organisations, and TÜRKAK Accreditation Document Verification System, which verifies the documents issued to customers by accredited organisations, are also provided through eGovernment. In addition, efforts are underway to ensure eGovernment integration of services such as Accreditation application inquiry, TÜRKAK Trainings and Certificates, Certificate Inquiry and Verification, Document review application inquiry, Assessor/Technical Expert application inquiry.



### Türkiye TechnoHub Platform

The **Türkiye TechnoHub Platform**, launched on 19 September 2022, serves as a central hub to further catalyse the rapid evolution of Türkiye's technology entrepreneurship ecosystem, boost visibility to potential investors, and share information on products, company profiles, and venture capital investments of technology start-ups in Türkiye. The Platform provides member companies with increased visibility, networking opportunities, and access to market data, all at no cost, thereby facilitating their growth and connections within the business ecosystem.

## Public procurement



### Public Procurement Law No. 4734

**Law No. 4734**, published on 22 January 2002, enabled the implementation of electronic public procurement. Further amendments were made to the law in 2011 to regulate the procedures and principles for conducting tenders through the Electronic Public Procurement Platform (EKAP). The amended law defines some normative issues related to tenders, regulates preparations for the tender process and sets out the rules for the preparation, submission, opening and evaluation of e-tenders. On 16 November 2022, with the amendment made to the Law, all transactions, approvals and notifications regarding all kinds of procurement, tender and contract processes, including those exempted from this Law and those made through direct procurement, as well as complaints and objection complaints to the **Public Procurement Authority** can be made partially or completely through EKAP. With the amendment made to the Law on that date, if the applicant is justified in all of his/her claims, the Board decides to refund the objectionable complaint application fee to the applicant.



### Regulation Amending the Regulation on the Implementation of Electronic Procurement

With **Regulation Amending the Electronic Tender Implementation Regulation** published in the Official Gazette on 26 January 2021, it is possible to file objection complaints to the Public Procurement Authority using e-signature through EKAP. The e-Appeal application was put into



operation on 26 July 2021. The electronic issuance and transmission of performance bonds through **TAKASBANK** became operational on 22 January 2024. Pursuant to the second paragraph added to Additional Article 2 on Electronic tender obligation with the amendment published in the Official Gazette dated 18 May 2022, it is obligatory to conduct tenders announced on or after 3 October 2022 digitally (e-tender) among the tenders held by the administrations through open tender procedure and bargaining procedure according to subparagraphs (b), (c) and (f) of the first paragraph of Article 21 of the Public Procurement Law No. 4734. The **Communiqué on Purchases to be made by Direct Procurement Method** published in the Official Gazette on 11 July 2023 in order to determine the procedures and principles regarding electronic tenders by direct procurement method in the cases specified in Article 22 of the Public Procurement Law No. 4734 entered into force as of 01 February 2024. According to this Communiqué, in tenders made by direct procurement method, e-price offers can be received from real or legal persons who bid through EKAP, announcements can be published and/or invitations can be sent to those who want to participate in the tender and the tender results can be notified to them. In addition, the same transactions can be carried out through EKAP in direct purchases made pursuant to Article 3 on Exceptions of Law No. 4734. On 11 July 2023, the law introduced applications for the refund of the objectionable complaint application fee and related notifications via EKAP.



### Regulation on Authorisation of Participants within the Scope of Public Informatics Tenders

The **Regulation on Authorisation of Participants within the Scope of Public IT Service Procurements** was prepared with the contributions of the DTO, the Ministry of Industry and Technology and the Public Procurement Authority. It was published in the Official Gazette on 29 June 2022. The purpose of the Regulation is to determine the criteria that the participants must meet within the scope of IT service procurements to be made by public administrations, to authorise them in line with these criteria, and to determine the procedures and principles regarding the suspension or cancellation of authorisations in case these criteria are not complied with. Within the scope of the Regulation, the integration of the Public Informatics Authorisation Certificate, which shows the eligibility and competence of those who want to participate in IT service procurement tenders, has enabled administrations to access the documents through EKAP.



### Electronic Public Procurement Platform (EKAP)

The Public Procurement Authority has been using **EKAP** since 2010 to enhance the electronic procurement of goods and services in the public sector. Tender documents under Public Procurement Law No. 4734 are published on EKAP and can be downloaded for free. Tender notices, bids with e-signatures, provisional and final guarantees, and notifications by contracting authorities can all be managed through EKAP. It also supports electronic auctions and price difference calculations. During the tender evaluation phase, relevant documents and prohibitions can be verified via integrations. Complaints and objections, as well as applications for fee refunds, can be submitted through EKAP. A help portal and call centre are available for users. Following the mandatory adoption of e-procurement in 2022, e-procurement rates significantly increased, with 99.77% of total tenders being e-tendered in 2023.



### Integrated eProcurement System

The **State Supply Office** implemented the **Integrated eProcurement System** in 2019, enabling to perform the whole public purchasing process electronically using eInvoice. The aim of the system is to provide an effective, fast and sustainable central procurement service. Based on periodical contracts and protocols signed with the suppliers, almost 20 000 catalogue products have been put on the market through the eSales portal. The whole tendering process is realised electronically by the eTender module included in the automation system and the eInvoices issued following the sales are immediately delivered to the parties.

## Digital inclusion and digital skills



### Twelfth Development Plan

The field-specific measures identified in the plan are as follows: activities will be carried out to improve digital skills in different segments of society; the digital skills of students and teachers will be improved and trainings will be provided on digital platforms such as the Education Informatics Network (EBA) and the Teacher Informatics Network (ÖBA) for the correct use of technology; employment of public IT personnel will be improved in terms of quality and quantity



in line with the needs; by ensuring the intensive use of technology in vocational education, the digital skills of students and trainers will be improved in addition to professional knowledge; in-service trainings for teachers and administrators will be organised, teaching materials and contents will be prepared; a public IT competency framework that determines the roles and responsibilities of public IT personnel and identifies their competencies will be prepared and a dynamic inventory will be created; it will be ensured that programmes for the development of digital skills and digital culture and arts will be included in formal education curricula; specialised trainings for the development of digital skills of stakeholders in the cultural economy value chain will be supported and certification will be provided; the use of information and communication technologies and digital skills of the elderly will be improved; vocational training programmes will be implemented to develop digital skills and competencies and green job opportunities according to the needs and potentials of regions, taking into account the professions of the future; a Digital Government Academy will be established to meet the training and change management needs of public institutions in the field of digital transformation; working networks and a mentoring mechanism will be established to share experience and develop expertise among public IT personnel.



### Digital Transformation Leaders Development Programme

The **Programme**, coordinated by the DTO in collaboration with the Ministry of Industry and Technology, Scientific and Technological Research Council of Türkiye (TÜBİTAK), Turkish Management Sciences Institute (TÜSSİDE), and the Human Resources Office of the Presidency (CBİKO), aims to enhance the digital transformation efforts and strengthen the administrative and technical capacity of public institutions. It seeks to introduce global digital transformation trends to senior public sector managers, establish standards and methods for better planning and management, and explore the use of new digital technologies in the public sector. Targeting senior IT managers of public institutions, the Programme ran twice in 2023, featuring 3 themes, 14 modules, a corporate case study, and an evaluation exam. Trainings were delivered both physically and online by expert trainers.



### Movement for Enhancing Opportunities and Improving Technology (FATİH)

FATİH was launched with the aim of providing equal opportunities in education and improving technologies in schools, further integrating ICT into the education process. FATİH finances initiatives such as providing hardware and broadband internet to all classrooms, developing e-Content, creating platforms for teacher engagement in ICT and facilitating other activities, including project implementation support.



### Electronic Commerce Information Platform

The **Platform** is another project related to the **Electronic Commerce Information System (ETBİS)**. The platform has become an information resource for those who want to move their business to digital environment. In the eCommerce Academy section on platform, there are 33 training videos and 74 training documents under 8 main topics ranging from the establishment of eCommerce sites to eExport. The number of users who have benefited from the trainings to date has been almost 100K.



### Skill Map of Türkiye

The Human Resource Office of the Presidency (CBİKO) launched the Skill Map of Türkiye to show the distribution of active workforce based on job families and four different ISCO-08 skill levels. The project provides an illustration of active workforce by provinces using employment and graduation data. Moreover, the project enables investors to identify which provinces have enough human resource with sufficient skills by utilising People Analytics approach.



### BTK Academy

The **Information and Communication Technologies Authority (BTK)**, the regulatory authority for electronic communications and postal sectors, has been conducting various studies for skills development and capacity building in Türkiye. In 2017, **BTK Academy** was established as a digital training portal in the field of ICTs for capacity building and skills improvement. BTK Academy offers free, user-friendly online and face-to-face ICT trainings, and organises camps, workshops, hackathons, conferences, and seminars to build capacity and improve skills, especially for youth and children. Rapidly growing since its inception, it has aligned its training programs with current trends and user needs. By January 31, 2024, BTK Academy had reached nearly 2 million users and offered 245 topics on its portal, accessible through eGovernment. It provides



courses in various categories such as Software World, System World, Design World, AI World, Regulation World, and Secure Internet World, covering subjects like cybersecurity, mobile apps, data science, blockchain, and cloud technology. Constantly updating its offerings, BTK Academy addresses the nation's training needs and has created a Career Guide with public and private partners to help young people navigate job markets by listing necessary skills for 27 positions under 5 categories.

### Innovative Classrooms

The Directorate General for Innovation and Educational Technologies of the Ministry of National Education initiated an action to **redesign 3 500 classrooms** used by teachers and students according to the active learning methodology to improve the digital skills of students. The initiative aims to develop more flexible learning spaces using new technologies while enhancing teachers' skills.

### Teacher Informatics Network (ÖBA) Portal

ÖBA is a digital platform developed by the Ministry of National Education to facilitate teachers' access to professional training materials and to enable them to communicate and share experiences with other teachers. To date, 46 online courses have been published on ÖBA and 605 545 participants have registered for digital skills courses. In the coming period, new digital skills courses will be published for 200 000 teachers.

### Student/Teacher Support System (ODS)

ODS, an individualised question-based system, provides students with access to various auxiliary resources such as textbooks, lectures, lecture videos and question-solution videos. The system, which works according to an algorithm developed to identify and correct students' deficiencies based on the questions they solve, supports students' systematic studies. Through the system, teachers can send homework to their students and track the results. Teachers, students and graduates can benefit from the content in the system by logging in with their eGovernment password. The system consists of 3 modules: School Courses Module; Exams Module; Support and Training Courses (DYK) Module. The system includes 62 courses and books for primary and secondary school levels, 65 000 multiple choice questions, 2 550 lecture videos, and 12 000 question solution videos.

### The Digital Badge

The **Digital Badge** is a platform created to increase the digital competence of organisations by creating, sending and tracking digital certificates and badges. Organisations can send certificates and badges to individuals, and individuals can share their certificates and badges (obtained as a result of the trainings organised by public sector, NGOs and private sector) digitally. With these digitally issued, secure and verified certificates, individuals can share their competencies on social platforms. Digital Badges are verifiable digital symbols that showcase individuals achievements or indicate that an individual has acquired a specific knowledge, skill or ability.

### Kitap+ (Book+) Application

Kitap+ is a digital library application that offers an enriched reading experience to all readers, especially hearing-impaired individuals, with video books translated in sign language. Kitap+, which provides animation of different picture books with rich content, allows a significant number of readers to access children's literature in the form of illustrations, text, and audio.

### Scholarship System (BURSİS)

Institutions affiliated to the Atatürk Supreme Council for Culture, Language and History (Ministry of Culture and Tourism) grant scholarships to undergraduate and graduate students working on subjects related to their areas of responsibility and support graduate education and research activities in Türkiye and abroad. As all services of public institutions started to be gathered under the eGovernment umbrella, it was decided to receive scholarship applications via eGovernment. As a result of the joint work, scholarship applications are successfully received via eGovernment. With the use of BURSİS on the eGovernment platform, many gains were achieved in the scholarship awarding processes of institutions.



### E-Kitabım (My E-Book) Application

The application was launched by the Ministry of Culture and Tourism in 2021 in order to encourage the supply of products in electronic format other than printed books, R&D and innovation studies for the use of technology and to support digital production in the publishing sector. The works printed within the framework of the Project for the Printing and Publication of National Cultural Works, the classical works of our literature such as divans, masnavi, collection of biographies published by the Ministry of Culture and Tourism since 2005 within the framework of the Project for the Digitisation of Turkish Classical Works, and the publications of the Presidency of Turkish Manuscripts Association are uploaded to this online e-book platform. From 2021 to September 2023, approximately 5 000 titles of e-books were made available to readers.



### Women-Up Project

The EU-funded Support to [Registered Employment Project \(Women-Up\)](#) is a project to provide financial support to female employers for 20 months to increase female employment.





## 5. Trust and Cybersecurity

### eID and trust services



#### Twelfth Development Plan (2024-2028)

The field-specific measures identified in the Plan are as follows: digital authentication and account management processes will be improved; the eGovernment Gateway will be developed to promote integrated services with common payment and authentication applications; and standardisation of municipal services offered through the Gateway will be ensured.



#### Law No. 5070 on Electronic Signature

Law No.5070 on Electronic Signatures was enacted in 2004. The law covers the legal status of electronic signatures, the binding issues and operations concerning electronic signatures and the activities of electronic certificate service providers. The law ensures that qualified electronic signatures have the same legal effect as manual signatures. According to 2023 Q3 data announced by the Information and Communication Technologies Authority (BTK), the number of e-signatures and mobile signatures reached 7.1 million and 936 000, respectively. A total of 8.1 million electronic certificates were created.



#### Circular on the Establishment of a Public Certification Authority

Kamu SM - Public Certification Authority was established in 2005 within the National Research Institute of Electronics and Cryptology (UEKAE) a subsidiary of The Scientific and Technological Research Council of Türkiye (TÜBİTAK). Kamu SM is authorised by Electronic Signature Law No. 5070. TUBITAK UEKA, has been assigned to create Kamu SM for its competency in areas of information security and electronic signature technologies. Kamu SM is mandated to prepare Qualified Electronic Certificates, to load signature creation data with these certificates into the Secure Electronic Signature Hardware and to deliver the certificate to the certificate owner. Kamu SM uses secure products and systems to collect applicant data, prepare and deliver the certificates, manage operations in a reliable way, and take all necessary measures in order to avoid certificates being copied or distorted. The qualified electronic certificate required to use a Secure Electronic Signature can be obtained from the Electronic Certificate Service Providers listed in this [link](#). In accordance with the Prime Ministry Circular 2004/21, Kamu SM only provides certificate services to public employees.



#### Regulation on the Procedures and Principles Pertaining to the Implementation of the Electronic Signature Law

On 2021, some amendments were introduced to the Regulation on the Procedures and Principles Regarding the Implementation of the Electronic Signature Law published in the Official Gazette dated 06 January 2005. The Regulation introduced some updates regarding the details of the procedure to be followed in the application for a qualified electronic certificate and the nature of the documents to be submitted. The Regulation also stipulates general issues, procedures and principles regarding the installation of a qualified electronic certificate on an ID card, details on identity verification with an ID card and in the electronic environment, the role of the Electronic Certificate Service Provider (ECSP) and the secure communication certificate.



#### Regulation on the Turkish National Electronic Identity Card

The Electronic Identity Card Authentication System Regulation, published in the Official Gazette on 22 October 2020, regulates the procedures and principles of the ID Authentication System (eID Verification System or EVS). Pursuant to the regulation, service provider certification applications in the field of eID cards shall be made to the General Directorate of Population and Citizenship Affairs. The applications shall be finalised by the system's Evaluation Commission and submitted to the Ministry of Interior for approval. Pending the approval, ID Authentication Service Providers (ASP) shall commence providing their services. The regulation also focuses on the provisions regarding the processing, protection and security of personal data. Other procedures and principles regarding system security shall be determined by the General Directorate of Population and Citizenship Affairs.





### Law No. 6661, Amending the Law on Military Service and Other Laws

Articles 8 and 12 of Law No. 6661 allow for biometric data to be embedded into the new eID cards and those cards to be used for authentication purposes. Digital signature-ready eID cards also started to be distributed in 2017.



### Regulation on Electronic Seals

The Regulation on eSeals is contained in Law No. 5070 on Electronic Signatures was published in the Official Gazette of 28 January 2021 and entered into force on 3 February 2021. The eSeal, which can be defined as a kind of eSignature that verifies the corporate identity of the legal person, aims to guarantee that the legal person's transactions in the electronic environment are made in a secure and verifiable manner. In addition, the eSeal ensures that the corporate identities are legally proven in electronic transactions.



### Regulation Regarding Electronic Notification

The Regulation Regarding Electronic Notification was published in the Official Gazette on 6 December 2018. The main purpose of the regulation is to set out the procedures and principles regarding the notifications to be made in the electronic environment. The regulation outlines how to better implement electronic notification. The electronic notification system is one of the significant tools to enhance quality by providing more expeditious services to the parties. Besides, system data are regularly updated and shared with the public on the website of the Ministry of Justice.



### Identity Information Sharing System (KPS)

The KPS went into operation in 2005 as an extension of the Central Population Management System (MERNIS). Public institutions and agencies can access ID information stored in the MERNIS database via the KPS under the conditions strictly specified in the respective access protocols. For agencies to benefit from the KPS, a protocol must first be concluded with the Directorate General of Population and Citizenship Affairs. The KPS works over a VPN and every user is assigned a username and password. The system keeps log of every user and every conducted enquiry. Users of the system are able to conduct enquiries by accessing the KPS web services using add-ons to their existing applications or by developing new applications, and then view the enquired data directly from their own applications and automatically update their own databases with the enquired information.



### Electronic Identity Management System Application (KDS)

An Identification Verification System (KDS) consisting of a user ID and a password is used in the framework of the eGovernment services provided by government agencies, with each agency producing its own IDs and passwords. Some government agencies meet their identification verification needs using the eSignature and mobile signature. Turkish Satellite Communication Cable TV and Management Inc. (TurkSat) is developing and offering agencies with applications where identification verification systems like password, eSignature and mobile signature work in an integrated manner.



### Electronic Authentication System (EKDS)

EKDS provides for the authentication of a person by recording the following information in the context of services provided in an electronic environment: the identity card was issued by the authorised institution; the person is the owner of the card; the person is at the place where the service is provided during authentication; and where, when, by whom and why the authentication process was performed. Authentication is carried out via the Card Access Device (KEC). The KEC is a special card reader whose infrastructure is developed by the Scientific and Technological Research Council of Türkiye (TÜBİTAK) Informatics and Information Security Advanced Technologies Research Centre (BİLGEM) for the new generation of electronic ID cards. Thanks to the Secure Access Module (GEM) inside the device, it can communicate securely with the ID card and read data fields that cannot be reached with standard card readers, such as the personal message and biometric data of the card holder. The KEC performs the verification with authentication methods according to the security policy determined by the external application software or policy server. Within the scope of the EKDS, an eSignature can be uploaded to the Turkish ID card using the card's features. The EKDS Regulation was published in the Official Gazette with No. 31282 on 22 November 2020.





### Biometric Data Management System

Fingerprint data is taken from citizens applying for passport, driving license and Turkish ID Card and this data is transferred to the **Central Population Management System (MERNIS)** through a programme. If the citizen's fingerprint was previously provided for another instance, the relevant intermediary programme verifies the fingerprint data. If the citizen does not have a previous fingerprint in the system, the programme takes the fingerprint record and shares it with the security units, and 1-N checks whether it matches with that of another citizen. The **Directorate General of Population and Citizenship Affairs** developed a fingerprint acquisition and comparison software in cooperation with **Havelsan** in accordance with the Eleventh Development Plan.



### Turkish Identity Card

The Turkish identity card is a document that proves the identity of citizens of the Republic of Türkiye. The card allows electronic identity verification at different security levels, offering the opportunity to safely access the services provided through electronic media. The identity card is designed according to the international standards and contains the owner's identity information, a biometric photograph and other biometric information. Upon request of the card owner, the identity card can also be used as an eSignature tool with the installation of eSignature certificates. Additionally, the identity card can be utilised as travel document with the information contained in the contactless chip and in the machine-readable zone (MRZ) in the back of the card. Card owners can change PIN numbers via the KIOSKs or Card Access Device (KEC) hardware available in Civil Registry Directorates and can perform actions such as removing the PIN block, changing the personal message and checking the card. In addition, by using the PIN number through the Turkish Identity Card, which is integrated into eGovernment, card owners can also sign into the portal. The new chipped identity cards were introduced in 2017 and are now used by almost 75 million citizens (approx. 90% of the population), with the distribution still ongoing.

## Cybersecurity



### Twelfth Development Plan (2024-2028)

The field-specific measures identified in the **Plan** are as follows: regulations will be made to ensure national cyber security by taking into account the EU's Network and Information Security Directive (NIS2) and new studies in the field of cyber security and international best practices; the highest level of coordination of national cyber security activities will be ensured, and in this context, an effective coordination and administration structure will be set up to establish inter-institutional cooperation; the use of domestic cyber security products, particularly by public institutions, will be increased; programmes will be developed to train qualified labour force and improve career opportunities in the field of cyber security; a new business models will be established to protect the competent labour force in the field of cyber security; training content, quality and the environment will be improved in order to train the labour force in line with the needs of the sector; efforts will be made to raise public awareness on cyber security; mechanisms will be strengthened to protect public institutions against cyber security threats, to ensure the privacy of personal information in the provision of digital services and to implement the ethical principles of artificial intelligence; mechanisms for the implementation of information and communication security measures in public institutions, and for the establishment, operation and audit of information security management systems will be strengthened.



### National Cybersecurity Strategy and Action Plan

The Ministry of Transport and Infrastructure is the body responsible for making policies and developing national cyber security strategy and action plans in Türkiye. The **National Cybersecurity Strategy and Action Plan** for the period 2020-2023 entered into force in 2020. In line with the Türkiye 2023 goals, it determines the goals, strategies and actions for the upcoming period, aiming to further the gains achieved in the strategies implemented before. In the development of the strategy, the effects of technological developments, trends in cyberthreats, national needs and international practices were carefully examined and targets were set accordingly. Within this framework, the strategic goals that were set are gathered under eight main headings: Protecting Critical Infrastructures and Increasing Resilience; National Capacity Building; Organic Cybersecurity Network; Security of New Generation Technologies; Fighting against Cybercrimes; Developing and Fostering Domestic and National Technologies; Integrating Cyber Security into National Security; and Improving International Cooperation.



Based on the principle of interoperability, the [Information and Communication Security Guide](#) was published by the Digital Transformation Office (DTO) of the Presidency for all public institutions and organisations and enterprises providing critical infrastructure services. The guide was prepared on the basis of [Presidential Circular No. 2019/12](#), as a complementary document on the security level of information assets according to institutions and the kind of measures to be taken. Moreover, a project has been initiated by the DTO in order to examine the cybersecurity governance model in Türkiye, to analyse world examples, make a comparative analysis and as a result, present improvement suggestions. Necessary legal, administrative and technical regulations will be put forward for the improvement of the determined areas based on the study on determining Türkiye's cybersecurity governance model and roadmap.

### [CSIRT Setup and Management Guide](#)

The [Communiqué on the Procedures and Principles Regarding the Establishment, Duties and Operations of Cyber Security Incident Response Teams \(Institutional and Sectoral CSIRTs\)](#) dated 11 November 2013 was published in the Official Gazette. Within the Ministry of Transport and Infrastructure, the duties of establishing Institutional and Sectoral CSIRTs, ensuring the necessary coordination and establishing an audit mechanism have been assigned to the General Directorate of Communications under the Ministry. Therefore, the Corporate CSIRT Setup and Management Guide was prepared and published as an annex to the Information Security Policies Directive. The guide includes the qualifications of the Institutional CSIRT personnel and the trainings they should receive, the procedures to be applied before and after a cyber incident, and the principles of establishment of the Institutional CSIRT.

### [Presidential Circular on Information Security Measures 2019/12](#)

The transfer of information to digital environments, the direct access to information, the digitisation of infrastructures and the widespread use of information management systems bring serious security risks. [Presidential Circular on Information Security Measures 2019/12](#) was issued to reduce the security risks encountered and to ensure the security of critical types of data that may threaten national security or lead to the deterioration of the public order. The Circular includes 21 basic information and communication security measures that should be taken by the public institutions and the private sector offering critical infrastructure services. To guarantee data protection, the Circular aims to ensure that data owned by a country remains within the boundaries of that country. It also highlights that the production and use of national cybersecurity solutions represents one of Türkiye's main priorities. Finally, it also states that "an Information and Communication Security Guide shall be prepared under the coordination of the DTO in order to mitigate and neutralise security risks and ensure the security of critical data in particular".

### [Information and Communication Security Guide](#)

Within the scope of [Presidential Circular on Information Security Measures 2019/12](#), the [Information and Communication Security Guide](#) was published in 2020. The main purpose of the Guide is to set out detailed cyber security measures to ensure the security of critical information/data that may lead to disruption of public order or threaten national security. As the first national reference document published in this field, the guide emphasises the need for a comprehensive security strategy covering all aspects of information and communication security. It plays an important role in strengthening the cyber defence capabilities of public institutions and critical infrastructure service providers. It also requires product suppliers to provide a declaration that their products do not contain any backdoors.

### [Information and Communication Security Audit Guide](#)

In order to achieve and ensure continuity to the achievements targeted in the Information and Communication Security Guide, the [Information and Communication Security Audit Guide](#) was prepared by the DTO and published in October 2021, in the belief that information and communication security is possible through effective audit and surveillance activities. Public institutions and organisations and businesses providing critical infrastructure services are expected to complete their compliance activities within the period specified in the Information and Communication Security Guide, and to carry out audits at least once a year in order to determine the compliance of the activities carried out and the measures taken. The organisations within the scope are not only required to comply the requirements of the ICS Guide, but also to perform regular audits and assessments of how effectively the security measures are implemented and whether the implementation process is in alignment with the related requirements. Therefore, regular audits at least once a year should be conducted by either the internal audit function or



accredited third-party audit companies. Audit policies and procedures that must be conducted by the organisations within the scope are documented in the Audit Guide which was published by the DTO in 2021.

### Information and Communication Security Auditor/Company Certification Program

The Information and Communication Security Auditor/Company Certification Program has been designed to provide the skills needed to determine the qualifications and competencies of the companies and auditors who will carry out compliance audits of the ICS Guide. The Program is being implemented in cooperation with the Turkish Standards Institution (TSE) and the Scientific and Technological Research Council of Türkiye (TÜBİTAK). A total of 163 auditors and 23 companies have been certified and authorised within the scope of the Certification Program since 2021.

### Information and Communication Security Audit Monitoring System

The System has been developed and put into service on 4 January 2023. The system allows to monitor the audit results of all organisations within the scope of the Information and Communication Security Guide. 2 945 users and 1 191 organisations have already registered to the system. Organisations can provide information about the progress of their ICS Guide compliance and audit activities. The current compliance level in terms of information security management system can be tracked as well through this digital platform.

### National Cyber Security Governance Model Analysis and Reporting Project

The National Cyber Security Governance Model Analysis and Reporting Project, which was initiated with the aim of examining the cybersecurity governance model in Türkiye, has been completed. A comparative analysis has been conducted by examining world examples and recommendations have been presented for the improvement. As a result, the Cyber Security Governance Framework for Türkiye has been developed. Following completion of the project, a National Cyber Security Workshop was held in order to share the outputs of the National Cyber Security Governance Model Analysis and Reporting Project on 13 December 2022. More than 40 public institutions and 100 participants shared their opinions and suggestions during the workshop. According to the results of the workshop, it was determined that there is a necessity for a national cybersecurity law. Efforts to prepare a national cyber security law are continuing, considering national cyber security governance and organisation in a unique Cyber Security Governance Framework that is in line with technological developments and will increase national resistance against current cyber threats.

### Cyber Security Education

Türkiye has a large human capital, with half of the population under the age of 32 constituting a dynamic workforce and financial discipline. One of the most important components in ensuring national cyber security is to have human resources with sufficient competence and expertise. In order to meet the needs of our country in this field, the DTO carries out activities to increase the level of knowledge and experience of existing human resources:

- **Cyber Security Vocational High School in cooperation with the Ministry of Education.** Concrete steps have been taken in formal education and cyber security education at the secondary level by 2020. Teknopark Istanbul Vocational and Technical Anatolian High School, Türkiye's first cyber security high school, was established by the Ministry of National Education (MEB) with the contributions of Türkiye Cyber Security Cluster, Secretariat of Defense Industries, DTO and Teknopark Istanbul. The school is providing education in Information Technologies, Network Management and Cyber Security. Cyber security High School has been at the top of the list of preferences since the day it was opened.
- **Cyber Security Vocational Schools in cooperation with the Council of Higher Education.** By further developing the model DTO implemented in Cyber Security Vocational High School, a new project has undersigned to get qualified staff at Cyber Security by the DTO and the Council of Higher Education (CoHE) in 2022. "Cyber Security Vocational Schools", which will offer education programs only in the field of cyber security, were opened in 2023. The first program offered is "Cyber Security Analyst and Operator". It was opened in 4 universities (Ankara University, Ege University, Gebze Technical University, Istanbul Technical University).



## Cybersecurity Measures in the Ministry of Energy and Natural Resources

The National Cyber Security Strategy and Action Plan 2016-2019 & 2020-2023 includes measures to ensure the cyber security of critical information assets and infrastructures by gradually increasing security measures against increasing threats. In this context, the Energy Market Regulatory Authority (EMRA) was appointed as the authority responsible for cyber security regulations and audits in the energy sector. In 2014, licensees of a certain size and criticality in the energy sector were required to comply with the ISO 27001 standard and the [Regulation on Information Security in Industrial Control Systems \(ICS\)](#) used in the energy sector published in 2017, which accelerated efforts to ensure the cyber security of the energy sector. EMRA is leading a major restructuring in the energy sector, covering 260 of the approximately 2 300 different Cyber Incident Response Teams formed by all critical infrastructure and public service organisations nationwide. Cybersecurity efforts for industrial control systems continued in 2019 when the Procedures and Principles for Security Analysis and Testing for Industrial Control Systems Used in the Energy Sector were published. In this context, obliged organisations were given 18 months to perform the tests for the first time. Thereafter, the tests were planned to be repeated at 3-year intervals. Subsequently, the [Regulation on the Cyber Security Maturity Model in the Energy Sector](#) was published in June 2023. The purpose of the Regulation is to contribute to ensuring the security of energy supply by unifying the cyber security regulations in the sector and then moving the energy sub-sectors to an acceptable and measurable minimum maturity level with the dynamics they contain. Within the scope of the Regulation, maturity models were prepared separately for the electricity distribution, natural gas distribution, electricity generation and refinery sectors and these models were published in the Official Gazette as well as on EMRA's website. In the model, each energy sub-sector was evaluated according to its own dynamics and the control items that facilities are obliged to implement were defined in accordance with the sectoral criticality levels determined using certain parameters.



## Law No. 5809 on Electronic Communications

Law No. 5809 on Electronic Communications sets out the tasks and responsibilities of the Ministry of Transport and Infrastructure regarding the determination of policy, strategy, objectives and action plan to ensure national cybersecurity; the rules and procedures on ensuring cybersecurity for public institutions and real and legal persons; the critical infrastructures and their relevant institutions and positions; establishing and overseeing the required response centre; conducting studies to produce and develop any kind of cyber response tools and national solutions or outsource or promote such efforts; conducting studies on cybersecurity awareness and trainings; and preparing the rules and procedures for real and legal persons operating in the field of cybersecurity. Besides, Article 60, par. 11 of Law No. 5809/2008, gives the Information and Communication Technologies Authority (BTK) the power to take the necessary measures to fight against cyberattacks with the aim of ensuring national cybersecurity. Also, according to Article 60, par. 12 of the same law, BTK has the right to ask any kind of information, document, record and data from any legal private and public entity, and real person. In addition, according to Article 60, par. 13 of the same law, BTK has the power to enforce and impose sanctions on these entities in case they do not take the necessary measures to fight against cyberattacks.



## By-Law on the Processing of Personal Data and Protection of Privacy in the Electronic Communications Sector

In order to ensure the protection of privacy and personal data in the electronic communications sector, the [Electronic Communications Law No. 5809](#) sets out the basic principles and procedures. The [Regulation on the Processing of Personal Data and Protection of Privacy in the Electronic Communications Sector](#) was prepared in order to clarify the issues regarding the implementation of the provisions of Law No. 5809 and to determine secondary issues, and was published in the Official Gazette on 4 December 2020 and entered into force on 4 June 2021, taking into account the EU e-Privacy Directive (2002/58/EC). The by-law imposes some obligations on operators in order to ensure the confidentiality and security of data belonging to subscribers who benefit from electronic communications services in Türkiye. Operators shall take technical and administrative measures in accordance with national and international standards in order to ensure the security of services and subscribers' personal data. They shall inform the competent authorities and subscribers about security risks and personal data breaches. The by-law provides subscribers with rights and opportunities such as hiding their numbers while making calls, rejecting calls from unidentified numbers, stopping automatic call forwarding to their phones by third parties and withdrawing consent to the processing of their personal data at any time with simple means and free of charge. In addition, according to the by-law, in the third quarter of each year operators





shall inform subscribers whose data are processed within the scope of their previous consent to the processing of their personal data.



### Harmonisation with EU Cybersecurity Legislation

The cybersecurity regulations of the European Union (EU) are closely monitored, and various studies are carried out for harmonisation by our country. Regarding the EU's Network and Information Security Directive (NIS Directive) No. 2016/1148, the Technical Assistance Project for Harmonisation with the EU on the Implementation of the Network and Information Security Directive was completed by BTK in 2020. On 16 January 2023, Directive (EU) 2022/2555 (NIS2 Directive) entered into force, replacing Directive (EU) 2016/1148. Work on the NIS2 Directive is also being followed and the 12<sup>th</sup> Development Plan (2024-2028) includes measure item 581.2. Regulations will be made to ensure national cybersecurity by taking into account the EU's Network and Information Security Directive (NIS2) and new work in the field of cybersecurity and international best practices. Efforts to harmonise the NIS2 Directive in Türkiye are being carried out by BTK. The Cyber Resilience Act (CRA), the first of its kind in the EU, introduces mandatory cybersecurity requirements for hardware and software products throughout their entire lifecycle. By making existing cybersecurity legislation more consistent, the CRA aims to ensure that products with digital elements, such as Internet of Things (IoT) products, are secured throughout the supply chain and throughout their lifecycle. It sets requirements for the design, development, production and placing on the market of hardware and software products to avoid overlapping requirements arising from different legislation in EU Member States. Work on the CRA is being followed and Türkiye aims to harmonise it. In addition, the establishment of a national cybersecurity certification scheme is in line with the EU Cybersecurity Certification Scheme (EUCC) for the testing and certification of domestic and foreign hardware and software products, services, processes and protection profiles used in information systems in terms of cybersecurity and performance.



### Draft Regulation on Ensuring Information and Communication Security

The Draft Regulation, the preparation stages of which were tasked to the DTO, is meant to implement information and communication security measures in order to reduce or eliminate information security risks in public institutions and organisations, while determining technical standards for the establishment, operation, audit, certification and surveillance of the information security management system. Moreover, it is conceived to determine the procedures and the relevant principles. With the regulation, public institutions and organisations registered in the State Organisation Central Registration System (DETSIS) that have an information processing unit or provide information processing services within the framework of contracts will be regulated.



### Ministry of Health Information Security Policies Directive

The Health Information Security Policies Directive has been prepared and put into force by the Ministry of Health in order to take measures to ensure information security in information processing processes; to ensure that information is evaluated within the scope of confidentiality, integrity and accessibility and protected from all threats that may occur intentionally or accidentally from inside or outside; to determine the procedures and principles to be followed in terms of information security in carrying out the activities effectively, accurately, quickly and safely.



### Adaptation of Information Security and Cyber Security Standards

With the Turkish Standards Institute (TSE), efforts were made to adapt, develop and translate information security and cyber security standards into Turkish within the framework of critical infrastructure sectors. Within the scope of the study, the adaptation of 9 standards regarding different critical sectors such as ISO/IEC 27011, ISO/IEC 27799, ISO/IEC 27019, ISO/IEC 27017, ISO/IEC 27018, ISO/IEC 31000, ISO/IEC 27031, ISO/IEC 62443 and ISO/IEC 27701 has been completed. Studies are being designed to bring these standards into national legislation in the upcoming period. Within the scope of the adaptation of cyber security standards, relevant studies of the ISO/IEC 27001:2022 standard have been completed. Also, the 2022 version of ISO/IEC 15408-1-2-3-4-5 and ISO/IEC 18045 standards, which are base standards of EUCC Scheme and CCRA Common Criteria Certification Scheme, have been adapted as TS EN ISO/IEC 15408-1, TS EN ISO/IEC 15408-2, TS EN ISO/IEC 15408-3, TS EN ISO/IEC 15408-4, TS EN ISO/IEC 15408-5 and TS EN ISO/IEC 18045 standard in 2024 by TSE. Moreover,





the Turkish Common Criteria Scheme will continue its Common Criteria certification activities according to these standards after July 2024 in IT products' cyber security.



### Turkish Cybersecurity Cluster

The **Turkish Cybersecurity Cluster** is a platform created by the Secretariat of Defence Industries (SSB) in 2018, aiming to allow Türkiye to produce technologies in the field of cybersecurity, in accordance with the missions of building a national cybersecurity ecosystem, developing local/national cybersecurity products and disseminating their usage. Cluster planning and coordination are carried out by the Turkish Cybersecurity Cluster Executive Board, which consists of representatives from the SSB and the DTO. The cluster has over 200 members with more than 400 cyber security products and services. The Platform pursues several goals, including (i) increasing the number of cybersecurity companies in Türkiye; (ii) supporting the development of member companies' technical, administrative and financial capabilities; (iii) improving the branding of products and services; (iv) improving the standards of the cybersecurity ecosystem; (v) increasing the competitiveness of member companies in the national and global markets; (vi) improving the human capital in the field of cybersecurity; and (vii) increasing awareness about cybersecurity throughout society. The Platform has been performing its activities under five main pillars: Access to the market, Innovation, Access to talent, Interaction and Technological leadership.



### Cybersecurity Products Test and Certification Project

The Cybersecurity Products Test and Certification Project was launched by the Presidency of Defence Industries (SSB) in 2019 to ensure reliability and increase the use of domestic products. The SSB started a working group under the **Turkish Cybersecurity Cluster** and started activities to define testing criteria of products. Until now, 11 different product groups' criteria have been finalised; 6 different product groups' criteria are ongoing and 21 different products have been tested and certificated so far. In order to publish these criteria as national standards, studies are ongoing with the Turkish Standards Institute (TSE).





## 6. Innovative technologies

### Artificial Intelligence (AI)

#### Twelfth Development Plan (2024-2028)

The field-specific measures identified in the Plan are as follows: the fight against informality will be carried out through risk analysis activities supported by technological opportunities such as AI and big data, and with the effective participation of all parties; adaptation to innovations in areas such as AI, cyber security, quantum computing and the IoT will be ensured and competence in these areas will be increased; domestic production of hardware and software products used in AI and Internet of Things ecosystems will be supported; smart agricultural practices will be expanded through digitisation, AI and data-based business models; development of basic technologies in the field of AI will be supported and their use will be expanded; public, university and private sector cooperation in the field of AI will be strengthened; international cooperation in the field of AI will be increased; necessary legal arrangements will be made to meet the needs arising from AI technologies; providing corporate cloud services at universities and providing access to software, tools and equipment that can be used for research and education purposes within the scope of information and communication technologies, especially AI, robotics and augmented reality, will be supported; within the scope of digital transformation, the use of information and communication technologies and AI in the provision of justice services is considered important; an ethical and legal framework for AI applications will be established; efforts will continue to utilise advanced technologies such as data analysis and AI intelligence in public human resources management; a public data space infrastructure will be implemented to increase institutional capacity through inter-agency advanced data analytics and AI projects; with the development of AI applications in public sector, reliable AI ethical principles will be applied in the procurement of products and services.

#### National Artificial Intelligence Strategy (2021-2025)

The National Artificial Intelligence Strategy (NAIS, 2021-2025), prepared in cooperation with the DTO and the Ministry of Industry and Technology, with the active participation of all relevant stakeholders, entered into force with Presidential Circular No. 2021/18. The NAIS defines the strategic measures that will enable individuals, companies and public institutions to follow a maturation path that starts with raising awareness and progresses as experimentation, implementation, management and ultimately realising structural transformation. Within the scope of the NAIS, a total of 6 strategic priorities, 24 objectives and 119 measures have been identified, ranging from training and employing experts in the field, strengthening entrepreneurship in the field of AI, facilitating access to quality data and technical infrastructure, and updating legal regulations to ensure socioeconomic harmonisation. With the implementation of these measures until 2025, the contribution of AI to GDP in Turkey is set to increase to 5% and employment is thought to increase in this field to 50 000 people. In the coming period, Türkiye will be among the top 20 countries with all its elements with human-oriented studies. The NAIS focuses on three main corporate AI competences, namely skills, data and infrastructure. Its aim is to develop these competences through a governance and strategic alignment process involving ecosystem stakeholders. The National AI Strategy Steering Board was established to ensure the necessary high-level coordination and monitor action plans with a result-oriented approach and to achieve strategic priorities and objectives more effectively and quickly. Based on the 119 measures of the NAIS, the Action Plan, which includes 122 actions and 451 action implementation steps, was adopted and the periodic monitoring and evaluation process was initiated as of the second quarter of 2022. Approximately 50% of the action plan has been completed. This monitoring and evaluation is coordinated by the DTO, which carries out the NAIS Secretariat, and the Ministry of Industry and Technology, and is reported quarterly. In line with the current developments in the field of AI and the policies and measures determined in the Twelfth Development Plan, it was decided to prepare a new Action Plan at the last Board meeting. In this context, work is ongoing.



### Standardisation studies on AI

The Turkish Standards Institute (TSE) has established the AI mirror committee MTC-195 to organise and contribute to national and international developments in the field of AI with a special focus on standards.

### 2020-2023 National Intelligent Transportation Systems Strategy Document and Action Plan

Under the 2020-2023 National Intelligent Transportation Systems Strategy Document and Action Plan, a total of 31 actions have been set to achieve five strategic goals, including sustainable smart mobility, ensuring road and driving safety, creating a liveable environment, conscious society and data sharing. Incentive mechanisms will be established for the development of national technologies on smart transportation systems. Studies on autonomous systems, robotics, big data, AI, and new generation communication technologies will be included in supporting programs.

### Studies of Human Rights and Equality Institution (HREIT) of Türkiye on AI

HREIT was established in 2016 with Law No. 6701. Made up of eleven members, the Human Rights and Equality Board is the decision-making body of the Institution. As an National Human Rights Institution (NHRI) HREIT works on wide range of human rights, including the rights of people affected by AI in their duty of protection and promotion of human rights. At the same time, as an equality body, HREIT has authority on anti-discrimination in the context of AI in its duty of fighting against discrimination. As it is specified in NAIS 2021-2025, the widespread use of AI-powered autonomous or semi-autonomous decision-making mechanisms raises ethical problems such as the protection of human rights and the prevention of discrimination. AI has a potential both to be useful tool and to be a risk in the context of human rights. Therefore, HREIT, as NHRI and equality body of Türkiye, is aware of the importance of this topic and has a variety of works related to AI and human rights. Following are some examples:

- On March 30, 2022, [International Symposium on the Effects of the Use of AI in the Context of the Prohibition of Discrimination](#) was carried out in Gaziantep, in cooperation with HREIT and Hasan Kalyoncu University;
- Within the scope of cooperation with NGOs, a [cooperation protocol was signed between HREIT and AI Policies Association \(AIPA\)](#) on 24 April 2022. The protocol aims to carry out joint projects on AI in the context of human rights by the two institutions;
- In October 2022, [Fact Sheet No. 7 on "AI and Human Rights"](#) was published on the Institution's website;
- To discuss problems and proposed solutions pertaining to non-discrimination issues and to exchange information and opinions on these matters, consultative commissions were set up. One of the consultative commissions, Digitisation and AI was included as an agenda item; and
- HREIT is a member of European Network of National Human Rights Institutions (ENNHRI) and regularly follows the work of the ENNHRI AI Working Group (AI WG).

### KAMAG 1007 - Public AI Ecosystem Project Call

In line with the NAIS, the KAMAG 1007 - Public AI Ecosystem Project Call was launched to pioneer the creation of an ecosystem for the development of AI projects in public institutions for the first time in Türkiye. The call was published on 1 August 2023. The development of AI-based solutions for the needs of public institutions was encouraged in the following themes:

- Financial technologies (FinTech);
- Intelligent production systems;
- Smart agriculture, food and livestock;
- Climate change and sustainability;
- E-commerce technologies; and
- Smart education technologies.

The project call was carried out under the coordination of DDO by stakeholders from the TÜBİTAK Research Support Programs Project Application System (ARDEB) and the TÜBİTAK Informatics and Information Security Advanced Technologies Research Centre (BİLGEM) AI Institute. This call program is important for achieving the goal of developing at least 40 projects in the Public AI Ecosystem, which is included in the Accelerating Structural and Workforce Transformation strategic priority of NAIS. As of August 2023, when the call was published, 51 different AI-focused project proposals were received from 28 different institutions. 33 of these proposals were found



suitable for the thematic areas of the TÜBİTAK AI Institute. A total of 26 applications were received for the technical requirements of 7 projects belonging to 7 institutions, whose application process was completed on 30 November 2023.



### Involvement in International Legal Frameworks on AI

Türkiye has been taking part in the efforts to put together international legal frameworks addressing AI. To this end, the Turkish delegation actively contributed to the 'Possible elements of a legal framework on artificial intelligence, based on the Council of Europe's standards on human rights, democracy and the rule of law' put together by the Council of Europe Ad Hoc Committee on Artificial Intelligence (CAHAI), which has been submitted to the Committee of Ministers for further consideration. The CAHAI has completed its mandate in December 2021. As the following step, the Committee on Artificial Intelligence (CAI) has been established to further discuss the Possible Elements document. Türkiye also actively contributed to CAI meetings. As a result, on 14 March 2024, the CAI approved the draft Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law, along with its draft Explanatory Report. The Convention was formally adopted by the Committee of Ministers of the Council of Europe (Ministers of Foreign Affairs) on 17 May 2024.



### AI Projects by Digital Transformation Office (DTO)

**Digital Eye - Brain Project:** designed in collaboration with the DTO staff and Gazi University, the project was first implemented at Gazi University Hospital. Within the scope of this project, an AI-based decision support system automatically analyses MRI images after the scan is performed. This system aims to provide immediate intervention to patients in need of emergency care, thereby reducing the likelihood of medical complications.

**Digital Eye - Mammography Project:** the aim of the Project is to develop an AI model that helps radiologists with a decision support system during the evaluation of mammography images and at the same time provides early diagnosis of breast cancer.

**Digital Eye - Liver Project:** the aim of the project is to reduce the burden on radiologists and maximise the efficiency of the time spent preparing for liver transplant operations by developing an AI-based system that can measure the volume and segmentation information of the liver.



### SAFİR Intelligence

**Safir Zeka (Safir Intelligence)** is a Machine Learning as a Service product currently being developed and maintained as a project of B3LAB. Safir Zeka offers the most basic machine learning libraries and customised out-of-box models for software developers. It is also optimised for data scientists and end-users to provide a development environment for machine learning applications. It uses the power of container-based virtual environments to provide high availability and portability. Through Safir Zeka, software developers and data scientists are able to create their own customised procedures and install any new software in their own. Safir Zeka has been forked as Safir Zeka Avionics in order to meet the machine learning requirements within the scope of the TF-X Aircraft project, which was initiated to meet Turkish Air Force (TurAF) needs. Safir Zeka Avionics is a machine learning library development project specialised in avionic data analysis and avionic AI use cases.



### Easy Export Platform

The **Easy Export Platform (EEP)** is an AI-based project that was developed to provide a single point for all data-related needs of exporters. The first phase of the EEP was launched in August 2020 and the second in March 2021. The EEP was established to ensure Turkish exporters can closely follow global commercial data. In the platform, up-to-date data and information obtained from public and paid databases, such as the UN Comtrade, the database of the World Bank, as well as data kept by various public institutions, are constantly and automatically available on the relevant pages. While providing a wide range of information through a single channel, the EEP provides consultancy to Turkish exporters as to the market selection by using disruptive technologies such as machine learning algorithms. The Smart Export Robot, one of the most important modules of the platform, operates in four layers using more than 10 million lines of data for more than 10 000 data fields compiled from national and international sources, together with the export history of companies.



### Foreigners Communication Centre (YIMER 157)

A Speech Analytics and Interactive Voice Response System was integrated into **YİMER 157** in 2021. Therefore, all incoming calls to YİMER 157 will be audited by means of 'voice analysis



software’ and issues such as the satisfaction measurement of the person receiving the service, the correctness of the information given and the possible negative events during the call can be identified instantly. Moreover, by the Interactive Voice Response System, foreigners are able to inquire about their residence permit and annotated visa application status without connecting to the foreign representative, using the application number given to them via the voice response system.

### AI Applications on National Judiciary Informatics System (UYAP)

As of January 2022, the AI based project Document Classification in Enforcement has been put into service within the **National Judiciary Informatics System (UYAP)** in order to minimise the human burden in the studies to be carried out to transfer the non-digital physical documents in the Enforcement Offices to UYAP and to determine the relevant document types according to more than 300 categories. In addition, AI-based Smart Assistant (Chat-bot) in UYAP’s Portal Applications has started to serve as of May 2021 with the purpose of decreasing the workload and responding faster to user questions coming to call centres of the **Ministry of Justice** and UYAP Help Desk. AI Applications on the Judicial Record Information System (ASBS) are meant to increase efficiency and citizen satisfaction by using artificial intelligence models in increasing data quality, accelerating judicial record examination processes, judicial record application prediction and application grouping, clustering of judicial record documents and information extraction from case files and official correspondence.

### MUES (National Museum Inventory System) Project

MUES is designed to preserve the cultural assets of many civilisations from the Hittites to the Seljuks, from the Phrygians to the Ottomans, to the future in our museums with the awareness of a universal trust. In preserving this heritage to the future, this project, in which Artificial Intelligence and Deep Learning techniques will be used, includes many modules and details from the visual information of the artifacts to anti-smuggling and commission operations, from excavation areas to laboratory processes, from private museums to collectors. It is being developed as a completely domestic and national project with the solution partners of the **Ministry of Culture and Tourism** and **Scientific and Technological Research Council of Türkiye (TÜBİTAK)** Informatics and Information Security Advanced Technologies Research Centre (BİLTEM).

## Distributed Ledger Technologies

### Twelfth Development Plan (2024-2028)

The field-specific measures identified in the Plan are as follows: customs practices in paperless environment will be expanded by using innovative technologies such as blockchain and automatic character recognition (OCR) in foreign trade transactions; the studies on the use of blockchain technology in export transactions will be developed to include the **Electronic Customs Declaration System (BİLGE)**.

### 2023 Industry and Technology Strategy

Blockchain is one of the 5 main among targets within the framework of the **2023 Industry and Technology Strategy** with the title National Blockchain Infrastructure. The objectives for the target are determined as follows:

- The development of the national blockchain infrastructure and thus the establishment of a blockchain-based network will be encouraged;
- In order to develop application development competence on blockchain technology, public sector based applications (such as, land registries, school diplomas, customs applications etc.) that can be moved to the blockchain infrastructure on the first hand will be determined and will be designed within the **Open Source Platform** initiative;
- A test environment and a cluster of participants will be created to conduct pilot applications (supply chain, banking, legal follow-up applications, etc.) through testing and application models in the blockchain infrastructure developed for testing new, secure business models and processes; and
- It is aimed to create a virtual regulatory sandbox together with the regulatory board to conduct regulatory compliance tests for developed blockchain applications, and to support the certification and investment of the initiatives that successfully complete the tests.





## Law on Cryptocurrency

The Cryptocurrency Law Proposal has been submitted to the Turkish Grand National Assembly (TGNA) and was approved by the Planning and Budget Committee. With the 19-article law, it is foreseen that crypto assets will be defined at the statutory level for the first time in Türkiye, crypto asset trading platforms will be licensed by the Capital Markets Board (CMB), and imprisonment will be introduced for those who provide crypto services without permission.



## Legislation on Cryptocurrency

To date, Türkiye has adopted several regulations regarding cryptocurrencies:

- The Central Bank of the Republic of Türkiye (CBRT) has been given the authority to determine the methods and instruments to be used for payments within the scope of the [Law No. 1211](#) and with [Law No. 6493](#) on Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions. Accordingly, The [Regulation on the Disuse of Crypto Assets in Payments](#) was published in the Official Gazette on April 16, 2021 and entered into force on April 30, 2021. The Regulation introduces the definition of crypto-assets into Turkish law, and also stipulates that services cannot be provided for the direct or indirect use of crypto-assets in payments;
- On 1 May 2021, the [Regulation Amending](#) the Regulation on the Measures Regarding Prevention of Laundering Proceeds of Crime and Financing of Terrorism entered into force. Accordingly, cryptocurrency service providers and savings finance companies are subject to the obligations set forth in the [AML/CFT Law No. 5549](#), such as customer identification, reporting suspicious transactions, providing continuous information, preservation and submission; and
- On 4 May 2021 and 20 April 2022 respectively, the Financial Crimes Investigation Board (MASAK) published two guides explaining in detail [the obligations of crypto asset service providers and the fines foreseen in case of violation of these obligations & the suspicious transaction reporting guide](#).



## BZLab

Based on the needs of public and private institutions/organisations, a [Blockchain Research Laboratory \(BZLab\)](#) was established under [Scientific and Technological Research Council of Türkiye \(TÜBİTAK\) Informatics and Information Security Advanced Technologies Research Centre \(BİLGEM\) UEKAE Mathematical and Computational Sciences Unit](#) to carry out R&D activities on the infrastructure, installation, security and privacy analysis, business models, crowdfunding approaches and various technical details of blockchain technologies. Some of the projects carried out by the BZLab are as follows:

- [Digital Currency](#): development of a national CBDC system (Digital Turkish Lira);
- [Digital Identity](#): development of a next-generation, blockchain-based digital identity management system, along with domestic installation and concept proof studies;
- [Crypto Radar](#): Development of monitoring and analysis infrastructure for cryptocurrency systems; and
- [BAĞ \(Blockchain Research Network\)](#): Establishment of a national blockchain research infrastructure, infrastructure for developing blockchain projects and test networks.



## End-to-End Design of the Export Process with Blockchain Technology

Owned by the [Ministry of Trade](#), financed by the [Ministry of Treasury and Finance](#) and supported by the [European Union Bank for Reconstruction and Development \(EBRD\)](#), the project [End-to-End Design of the Export Process with Blockchain Technology \(Within Country\)](#) started in 2021. The project aims to eliminate repetitive data sharing in the export process, reduce paper-based procedures, increase cooperation between stakeholders, prevent document fraud, accelerate processes through smart contracts, and strengthen data security and traceability through distributed ledgers and encryption. It is expected to be the first Proof of Concept (PoC) example in the world on this field.



## BIGA Project

[Takasbank](#) is the central clearing house responsible for the settlement of securities and cash of purchase/sale transactions carried out on [Borsa Istanbul \(BIST\)](#). Takasbank has been appointed as Türkiye's Central Depository and National Numbering Agency by the [Capital Markets Board \(CMB\)](#). The main objective of the [Biga Project](#) by Takasbank is to establish an infrastructure that will allow for execution of transfer of dematerialised gold at certain standards with their



physical equivalents kept in safe custody using blockchain technology. All details about the project are available in the project [White Paper](#).



### Istanbul Metropolitan Municipality Smartus Project

IMM Smartus, in line with the Smart City vision of the [Istanbul Metropolitan Municipality](#), is a Blockchain application supported by the latest technology that allows citizens to create a digital wallet and share documents with IMM institutions and affiliates in a safe and fast way. All your information in the IMM Smartus application, which can be downloaded for free and be used easily, is encrypted using strong cryptographic systems and the user has complete control of the information.

## Big Data



### Twelfth Development Plan (2024-2028)

The field-specific measures identified in the [Plan](#) are as follows: efforts will be made for Türkiye to be among the participating countries of GAIA-X, the EU cloud system, as a connection point; cloud services will be offered at universities and access to software, tools and equipment that can be used for research and education purposes within the scope of information and communication technologies, especially AI, robotics and augmented reality, will be supported; cloud-based applications prioritising domestic and national software targeting cost-benefit efficiency will be used in the digital transformation of universities and digital publication purchases; mechanisms for the secure use of cloud computing services by public institutions will be developed and cloud computing migration roadmaps will be created.



### B3LAB

The [Cloud Computing and Big Data Research Laboratory \(B3LAB\)](#) was established under Scientific and Technological Research Council of Türkiye (TÜBİTAK) Informatics and Information Security Advanced Technologies Research Centre (BİLGEM) and the [Information Technologies Institute](#) in 2014, in order to work on domestic and national cloud infrastructure, cloud storage and big data technologies. B3LAB Big Data Analysis Solutions allow to extract valuable information by processing and analysing big amounts of data in different forms. [SAFİR Big Data](#) offers big data storage, data transfer and analytics solutions that are easy to install and use. The [SAFİR Big Data projects](#) are as follows:

- Data Governance Tool Development for Turkish Customs;
- X-Ray Image Analysis for Preventing Smuggling in Customs;
- Turkish Statistical Institute-Big Data Advanced Analytics;
- Republic of Türkiye Ministry of National Education - TEOG Data Analysis;
- SAFİR Bio - B3LAB Variation Analysis Platform;
- Data Centre Monitoring and Server Load Prediction; and
- Big Data Infrastructure and Tools Needs Analysis.



### Health Information Management System (HBYS)

HBYS enables the management of big data related to both health institutions and individuals. It is the system that processes the data it receives, for the improvement of health organisations, health care, and for the determination of health policies from the HBYS ([Hospital Information Management System](#)), the [AHBS \(Family Medicine Information System\)](#), the [National Tuberculosis System](#), the [National Hospital Infections Surveillance System](#), the [Clinical Decision Support Systems](#), [ePulse \(eNabız\)](#) and [Sina \(Statistics and Causal Analysis in Health\)](#).



### Big Data Applications at Ministry of National Education

At the forefront of the large-scale big data projects in the Ministry of National Education come the [MEBBİS](#), [eSchool](#), [eWidespread](#), [Educational Informatics Network \(EBA\)](#) and [ALO 4440632 \(MEBİM\)](#) projects, which are a module compilation that includes a helpline for citizens, where students and MEB officials can log in to get information. The information involved can include a student's educational background, seminars, or any other comments/complaints concerning the Department of Education.





### Social Security Information System – MEDULA

The Social Security Institution (SGK) has recently implemented projects such as e-advice, MEDULA and ALO 170. It manages all health payments within the framework of defined rules and provides information on allocations, taxes and pensions. It also created a data warehouse that can generate reports by querying tens of thousands of different data combinations. With the help of Medula-Hospital, Medula Pharmacy, Medula Personnel Payments and Medula Optical applications gathered under the name of MEDULA, it was ensured that individuals benefit from health services in the best way and that health service providers can produce quality, fast and accurate data in all processes of payment to be made to health institutions.



### Turkish Court of Accounts (TCA) Data Analysis System (VERA)

The Turkish Court of Accounts (TCA) developed a computer-aided audit system, the Data Analysis System (VERA), to make more effective use of information systems in the audits conducted by the TCA and to perform big data analyses. In addition, an Audit Group was established to identify, conduct and develop audit processes and conduct data analysis studies. VERA is used to analyse personnel expenditures, accounting data of municipalities, risk assessments of municipalities, accounting data of special provincial administrations, investment monitoring and coordination directorates and revolving fund enterprises.



### Big Data Project in Higher Education

The Council of Higher Education (CoHE) has initiated the Big Data Project in Higher Education in order to ensure the systematic storage of data on issues such as measurement and evaluation in education, research methods, students' career choices, distribution capacities of quotas, quality and performance of education and to utilize big data in decision-making processes. The project has started to be implemented in 8 pilot universities (Istanbul Technical University (ITU), Middle East Technical University (METU), Atatürk University, Izmir Katip Çelebi University, Sabancı University, Fırat University, Sakarya University and Trabzon University) and the results of the pilot implementation will be shared with other universities and then expanded to all universities.

## Cloud & edge computing



### Upcoming Public Sector Cloud Computing Strategy and Action Plan

In Türkiye, public institutions traditionally establish their own data centres or server rooms, incurring high investment costs and operational inefficiencies. This decentralised approach, driven by individual institutional preferences and varying technological competencies, lacks economies of scale, leading to significant costs, with more than half of investments spent on maintenance rather than developing new services. The lack of qualified IT personnel exacerbates these issues. To address this, the Digital Transformation Office (DTO) of the Presidency is developing a Public Sector Cloud Computing Strategy to transition IT infrastructure needs to a cloud computing model with private sector providers. The strategy aims to achieve budget savings of up to 50%, provide affordable access to next-generation technologies, and improve digital services. Key principles include avoiding in-house IT infrastructure investments (except for national security and intelligence services) and leveraging commercial cloud services. The strategy focuses on three priorities: efficient and reliable cloud migration implementation, cloud service provision and enhancing workforce competencies. It involves a certification and authorisation mechanism for cloud providers that will serve specific public institutions based on global standards for service quality, standardisation, and security. The plan includes creating Cloud Computing Migration Roadmaps to guide institutions through the migration process and conducting gap analyses to identify and develop necessary staff competencies. This transformation is expected to enable the use of advanced technologies like AI, machine learning, and IoT, enhancing public service delivery. The strategy and action plan are set to be finalised by Q3 2024.



### Efforts on Incentives and Measures for the Development of Sectors Regarding Data Centres, Cloud Computing and Platform Services

The 2024 action plan of the Coordination Council for the Improvement of the Investment Environment (YOİKK) includes an action to effectively use incentive mechanisms to attract data centres offering large-scale cloud services. Accordingly, efforts are being made to facilitate the



investment of hyperscale data centres and cloud computing service providers in Türkiye. Three main incentive areas are targeted.

1. **Energy Cost Reduction Incentives:** this area aims to reduce energy costs by providing 50%-60% refund or repayment support to data centre operators and cloud computing providers for about 11 year;
2. **Co-location Hosting Services Refund:** in data centre services, it is planned that around 30% of the cost of co-location hosting services will be refunded or reimbursed to the customer over 11 years, provided that the white space exclusively hosts the customer's IT equipment; and
3. **Legislative Steps for Data Security:** necessary legislative measures will be taken to address concerns for corporate customers established under foreign laws and foreign individual customers hosted in data centres in Türkiye.

### Safir Cloud

Safir Cloud (Safir Bulut) is a B3Lab project, established under the Scientific and Technological Research Council of Türkiye (TÜBİTAK) Informatics and Information Security Advanced Technologies Research Centre (BİLGEM), that provides a cloud environment ready for specific or general usage scenarios with its autonomous services, unique capabilities, easy use and end-to-end traceable structure. Safir Cloud is an original cloud platform that has been forked from OpenStack in 2016. Not only does it has native OpenStack services included, but also it provides numerous IaaS and PaaS services, which are rigorously tested and stabilised both in terms of performance and feature sets.

### Pre-Competitive Cooperation Projects Call For Enterprise Resource Planning (ERP) Systems

Within the scope of the Pre-Competitive Cooperation Projects of the Ministry of Industry and Technology (MoIT), a Call has been initiated in the field of Enterprise Resource Planning (ERP) systems in 2021. Within the scope of the program, project partners are developing domestic and an open-source and cloud-based ERP system. It is planned that the source codes of the developed ERP system will be shared with the entire sector in 2025.

## Internet-of-Things (IoT)

### Twelfth Development Plan (2024-2028)

The field-specific measures identified in the Plan are as follows: cyber security, quantum computing and the IoT will be ensured and competence in these areas will be increased; domestic production of hardware and software products used in AI and IoT ecosystems will be supported; Establishment of the necessary R&D infrastructure, execution of projects and training of qualified human resources required for AI, IoT, augmented reality, big data, cyber security, advanced materials, robotics, micro/nano/opto-electronics, biotechnology, hydrogen technologies, renewable energy technologies, battery technologies, genome editing, carbon capture, utilisation and storage technologies, next generation nuclear reactors, fusion, quantum, sensor technologies and additive manufacturing technologies will be ensured; technologies using the IoT into construction will be encouraged.

### National Intelligent Transportation Systems (ITS) Strategy and 2020-2023 Action Plan

In the ITS Strategy and 2020-2023 Action Plan, the specific measure regarding IoT aims to establish an IoT network including ITS components, storing the data collected from these components in a big data environment and optimizing the transportation infrastructure by using innovative technologies in AI, deep learning, communication and similar fields by making them suitable for analysis.

### Regulation on The Registration of Devices with Electronic Identification Information

In 2021, amendments were made to the Regulation on the Registration of Devices with Electronic Identity Information published in the Official Gazette dated 12 July 2014 and numbered 29058 and the scope of IMEI registration was expanded. With this regulation, all devices that communicate with each other with the IoT feature are required to register with IMEI number.



Besides, Türkiye has started the harmonisation studies of the [Commission Delegated Regulation \(EU\) 2022/30](#) supplementing Directive 2014/53/EU (RED). The Regulation defines the scope of RED 3.3(d), points (e) and (f) corresponding the cybersecurity, protection of personal data, and protection from fraud of internet connected radio equipment including IoT devices. The essential requirements for cybersecurity of IoT devices will be set by harmonising the regulation which will be become applicable as of August 2024 in the EU.



### Accelerating Digital Transformation of SMEs Through Industrial IoT

Accelerating Digital Transformation of Industry with industrial IoT Project is operated jointly by C4IR - Türkiye Fourth Industrial Revolution Centre and the Turkish Management Sciences Institute (TÜSSİDE) supported by Turkish Employers of Metal Industries (MESS). The eventual aim of the project is to create a model for building a roadmap for companies and it involves the following steps: digital maturity assessments of SMEs; matching the technology users and technology providers and creation of a use case scenarios pool; and accumulating and keeping the application scenarios in an industrial cloud.

## Quantum Computing



### Twelfth Development Plan (2024-2028)

The field-specific measures identified in the [Plan](#) are as follows: adaptation to innovations in areas such as AI, cyber security, quantum computing and the IoT will be ensured and competence in these areas will be increased; R&D and P&D activities for military and civilian use in deep and ground-breaking technologies such as quantum technologies, AI, autonomous systems, hypersonic technologies will be supported.



### National Artificial Intelligence Strategy

In the [National Artificial Intelligence Strategy \(2021-2025\)](#), targets have been set to improve the testing and implementation processes of AI products and services with existing and newly established high-performance computing (HPC) infrastructures for data storage, fast transmission and secure sharing. According to the strategy, three measures have been identified for the target "common access opportunities will be provided to researchers and initiatives that need HPC infrastructures in AI studies": creating an inventory of HPC infrastructures; ensuring the common use of existing infrastructures and making capacity improvements; and establishing common technical infrastructures in cooperation with the private sector, academia and NGOs. The ultimate goal is to ensure that the number of public institutions and organisations accessing common HPC infrastructures is at least 200.



### Law No. 6550 on Supporting Research Infrastructures

Within the scope of investment programs, support is provided for the establishment and development of research infrastructures with higher education institutions and public institutions. Ensuring the administrative and financial sustainability of these infrastructures and increasing their cooperation and interaction with their stakeholders, especially the private sector, increases the economic and social benefits of the work carried out within them. Accordingly, the [Law No. 6550 on Supporting Research Infrastructures](#) was published in the Official Gazette on 10 July 2014. Three regulations on general principles regarding the implementation of this Law, procurement and tender processes, budget and accounting procedures were published in the Official Gazette on 28 August 2015. The definition of research infrastructure includes ICT facilities and knowledge-based capital such as researchers, technicians and working procedures, as well as machinery and equipment. In addition to large-scale research units (such as telescopes, particle accelerators, research vessels), research facilities that are physically established in different locations and/or have a virtual structure (such as high-performance computing and information networks) are considered as research infrastructures.



### National Centre for High Performance Computing (UHeM)

The [National Centre for High Performance Computing \(UHeM\)](#) has been active since 2006 at the [Istanbul Technical University \(ITU\)](#) as an application and research centre supported by the Presidency of [Strategy and Budget \(SBB\)](#). UHeM has allocated over 285 million CPU-hours of computing resources to 65 public institutions; provided hardware and software infrastructure to 1500 scientific projects and has organised over 100 training events attended by more than 3 600 participants. The major scientific areas of the projects that have been using UHeM's services can



be listed as follows: climate and earth sciences, astrophysics, high energy and plasma physics, materials science and nanotechnology, molecular chemistry, life sciences and bioinformatics, and computational fluid dynamics. With the protocol, supercomputer systems were allocated to the **National Nanotechnology Research Centre (UNAM)** and **Turkish Aerospace Industry (TUSAS)** for R&D activities. To date, 349 scientific articles and numerous scientific conference proceedings have been published with the resources used. In addition to academic users, free computing services have been provided to more than 750 students. HPC services were also provided to many private sector organisations.

### EuroCC 2 Project – NCC Türkiye (National Competence Centre)

The European High Performance Computer Joint Undertaking (EuroHPC JU), of which **Scientific and Technological Research Council of Türkiye (TÜBİTAK)** is a participant member, was launched in 2018 to support and develop Europe-wide HPC studies in the field of infrastructure and technology. The EuroCC Project is carried out to identify national needs in HPC, to develop competences in the field of High-Performance Data Analytics and AI, and to establish National Competence Centres (NCCs) in EuroHPC JU participating countries. The first phase of the project was completed on 31 December 2022 and EuroCC 2 project has started on 1 January 2023. **TUBITAK National Academic Network and Information Centre (ULAKBİM)** as the main partner of EuroCC 2 will coordinate NCC activities to create collaboration between academia, industry, and the public sector for HPC solutions in material science, molecular dynamics, bioinformatics, fluid dynamics, machine learning and AI. The affiliated entities of EuroCC 2, Middle East Technical University (METU), Sabancı University, and Istanbul Technical University National Centre for High-Performance Computing (ITU-UHeM) will share their HPC expertise through dedicated training events, schools, and, consultancies.

### Linux Operating System-Based Servers

Two Linux operating system-based servers located within the Ministry of Environment, Urbanisation and Climate Change are actively used for the implementation of model studies and the development of air quality management tools. All processes and scenario studies on the **NEFES Software** are carried out using HPC. With the NEFES, many factors such as strategic air quality maps, 3D building model, city atlas, topography, traffic density, intersections, fuel type of buildings are handled and air quality values with a precision of 5 meters are determined in a 3D environment. Data for 25 provinces and all district centres have been successfully produced.

## Gigabit and wireless high-speed networks

### National Broadband Spectrum Strategy and Action Plan (2017-2020)

Due to the high adoption and increased use of mobile broadband services, wider spectrum blocks are needed and new technological developments such as 5G bring new requirements. Taking this into account, publicizing the spectrum allocated for mobile broadband services, along with the release dates, enables operators to plan effectively and reduces the cost of installing more base stations due to the lack of spectrum and the increase in data usage. The **National Broadband Spectrum Strategy and Action Plan (2017-2020)** was presented to set out the roadmap for achieving the mobile broadband country targets (increasing minimum downlink speeds per user to EU levels, lowering the cost for customers to access these services, introducing new technologies, etc.). Work on updating the Strategy is ongoing. The strategy remains valid in 2024.

### 5GTR Forum

The **New Generation Mobile Communication Technologies Türkiye Forum (5GTR Forum)** was established in 2016 by the Ministry of Transport and Infrastructure and the Information and Communication Technologies Authority (BTK) with the aim of developing domestic and national products, services and technologies with high added value. Currently, 80 organisations are members of the Forum, which is structured in cooperation with public, industry and academia at national and international level. Within the 5GTR Forum, the Advisory Board, Academic Board and Core Network, Physical Network, Service and Application and Standardisation working groups were established under the coordination of BTK. In addition, many national and international events were organised within the scope of the 5GTR Forum, cooperation agreements were signed with 5G Forums in Japan and Korea, the **5G and Beyond White Paper**, which includes Türkiye's priorities, strategy and roadmap for 5G, was prepared by the 5GTR Forum Working Groups, and





many studies on 5G and beyond in vertical sectors were carried out and the **5G and Vertical Sectors Report** was prepared.



### Law No. 5809 on Electronic Communications

Pursuant to **Law No. 5809 on Electronic Communications**, authorisations are granted by the Information and Communication Technologies Authority (BTK) based on notification or right of use. Companies intending to provide electronic communications services or to establish and operate an electronic communications network or infrastructure must notify the BTK of their intentions before commencing operations. Notified companies are authorised with the right to use within 30 days, unless they require the allocation of scarce resources such as numbers or frequencies for the services or infrastructure they plan to provide or operate. If a company requires the allocation of scarce resources, the ICTA is authorised to decide whether it is necessary to grant the right of use for electronic communication services. There are currently no separate regulations on 4G, 4.5G and 5G mobile services. In order to obtain spectrum for 5G mobile services, companies are required to participate in right-of-use auctions. Auctions for 4G and 4.5G have already been held and finalised, but the auction for the right of use for 5G mobile services has not yet been held.



### 5G Valley Open Test Site

**5G Valley** is an open testing ground for R&D, product development and testing of new communication technologies. It was established in 2018 by the Information and Communication Technologies Authority (ICTA), Middle East Technical University (METU), Bilkent University, Hacettepe University and electronic communications operators Türk Telekomünikasyon A.Ş., Turkcell İletişim Hizmetleri A.Ş. and Vodafone Telekomünikasyon A.Ş. The region between these three universities and the ICTA headquarters is an emerging region with a dynamic population and various vertical sector components, referred to as vertical industries, such as IT and entertainment, healthcare, energy, transportation and agriculture. In addition, five separate MoUs were signed between the 5G Valley Protocol Parties and ULAK, İTİ Systems, Netaş, Spark/Keysight Measurement Technologies and Huawei to contribute to the establishment of 5G Valley test infrastructures. Within this framework, test network infrastructures were established in the 5G Valley and the first 5G signals were broadcasted in the 5G Valley in November 2018. Academics, researchers and start-ups can use the 5G Valley Open Test Area for R&D tests of 5G and beyond technologies. The 5G Valley is open for free use by all parties wishing to conduct studies on 5G and beyond. Many tests have been carried out by universities, automotive companies and related parties on various topics related to 5G and beyond, such as vehicle-to-everything (V2X), antenna measurements, channel measurements, Drone/UAV detection.



### The 5G and Beyond Joint Graduate Support Program (5G OLDLP)

Within the scope of 5G Valley activities, the **5G OLDLP** was launched with the cooperation of 5G Valley parties in order to contribute to the training of qualified human resources. The program aims to generate sustainable competence in advanced communication technologies and produce outputs in various forms such as patents, projects, articles, spin-off companies and thesis studies. Since October 2018, approximately 106 researchers have been employed under the Program and 38 students are currently attending the Program.



### 5G-MOBIX

Co-financed by the European Commission within the framework of the Horizon 2020 programme, **5G-MOBIX** aims to develop automated vehicle functions by taking advantage of low latency and high bandwidth provided by 5G and advanced AI technologies. The project is being carried out with 59 partners from 10 countries. Test fields will be established in six different countries and pre-demonstrations will be realised. Various usage scenarios will be held in the two different cross border corridors; Spain-Portugal and Türkiye-Greece.

## GovTech



### Participation of Türkiye in the Digital Europe Programme (DEP)

As of 1 January 2023, Türkiye is participating in the Digital Europe Programme (DEP) under the coordination of the DTO and the Ministry of Industry and Technology. Especially, Specific Objective 'Deployment, Best Use of Digital Capacity and Interoperability' of the Programme





provides new opportunities and financial sources for the digital transformation of public administrations in Türkiye. Since its official participation in the DEP, Türkiye has organised various information events to promote the calls launched under four specific objectives (except Specific Objective 3: Cybersecurity). During 2023, 14 information session with about 1 600 participants was organised in nation-wide. On the other hand, the national selection process for the establishment of European Digital Innovation Hubs (EDIHs) in Türkiye under *Specific Objective 5: Deployment and Best Use of Digital Capacities and Interoperability* was completed in December 2023 and the list of 17 EDIH candidates was shared with DGCNECT. In 2023, Türkiye ranked fifth with 26 applications under the DEP, two institutions had their projects supported, and four projects scored above the threshold. Besides, calls dedicated to create common European Data Spaces and their deployment under Specific Objective 2: Artificial Intelligence are open to stakeholders from Türkiye.

### 2020-2023 National Smart Cities Strategy and Action Plan

The 2020-2023 National Smart Cities Strategy and Action Plan, which is built with ecosystem stakeholders, takes into account national needs and priorities holistically have been prepared in order to gain the ability to work together by bringing a holistic view to smart city policies at the national level in Türkiye, to prioritize investments in line with the determined policies, to ensure that the investments are implemented with the right projects and activities. In addition, it was published in December 2019 (No.30988) and entered into force with the 2020-2023 National Smart Cities Strategy and Action Plan Circular No. 2019/29. This document is Türkiye's first and the world's fourth smart city strategy and action plan. In line with this; The [Smart Cities Capacity Building and Guidance Project](#) was implemented by Ministry of Environment, Urbanisation and Climate Change to contribute to the realisation of the duties and responsibilities defined within the scope of the 2020-2023 National Smart Cities Strategy and Action Plan on a national scale and to increase the capacity of all stakeholders, especially our local governments. The Ministry is preparing a new Strategy and Action Plan for 2024-2030.

### The Instant and Continuous Transfer of Funds (FAST) System

The Instant and Continuous Transfer of Funds (FAST) System is an immediate payment system in which customers can send payment orders 24/7 via system participants. FAST System is developed, operated, and owned by the CBRT. Payments in the system are executed within seconds, and the funds are instantly available in the recipient's account. Transactions that are not completed within the specified period are cancelled. System participants notify the sending and receiving customers about the payment result as soon as the transaction is completed. The FAST System was put into service to all customers on 8 January 2021. Overlay services are designed to meet the needs of the payments ecosystem and allow users to make instant, safe and easy money transfers. Within the scope of overlay services, the Easy Addressing System enables payments using easily remembered addresses, TR QR code allows payment via QR codes, Request to Pay lets payees request payments before they are initiated through the FAST system, and the Security Overlay Service (SİPER) aims to prevent fraud by sharing information and documents about potentially fraudulent accounts and transfers.

### Türkiye TechnoHub Platform

In order to further accelerate the growth of tech start-up ecosystem, the [Türkiye TechnoHub Platform](#) was established by the Digital Transformation Office (DTO) as a centralised platform to strengthen the interaction of local ecosystem stakeholders and increase its visibility to potential investors and foreign stakeholders. The [Platform](#) shares product information, company information, fields of activity and venture capital investments received by technology start-ups in Türkiye. Member companies can update their information on the Platform and can cancel their membership and remove information from the Platform at any time. The data is open to the public and queries based on company name, field of activity and region.

### Digital Innovation Collaboration Platform (DİİB)

The [DİİB](#) was established in December 2022 to bring together public institutions, industrial organisations and R&D infrastructures and university research infrastructures that carry out research, development, implementation and dissemination activities in the fields of AI, data science, robotics and relevant technologies in Türkiye. One of the objectives of the platform is to increase project applications for the Digital Europe Programme (DEP) and to develop cooperation with European stakeholders operating in the field of digital technologies. In line with this goal, the Platform's membership to European networks was brought to the agenda during the activities

carried out in 2023. The Platform is currently working on membership to EIT Digital, one of the most important initiatives in Europe, under the European Institute of Innovation and Technology (EIT).



### Smart City Ecosystem Platform

The **Smart City Ecosystem Platform** was established by the Ministry of Environment, Urbanisation and Climate Change in order to increase institutional cooperation among stakeholders working in the field of smart cities at local, regional, national and international levels. With the Platform, it is aimed to ensure the widespread use of the relevant technologies by realizing the appropriate projects among smart city technology producers, solutions and service providers, and to carry out procurement activities within the scope of a common terminology and understanding for the needs in this field.



## 7. Digital Public Administration Governance



For more details on Türkiye's responsible bodies for digital policy and interoperability, its main actors, as well as relevant digital initiatives, please visit the [NIFO collection](#) on Joinup.

### National

#### Digital Transformation Office (DTO)

Presidential Decree No.1 gave the Digital Transformation Office (DTO) of the Presidency of the Republic of Türkiye the responsibility of coordinating the digital transformation of the public sector with a focus on Digital Türkiye (eGovernment), big data, AI, national technologies and cyber security. On 24.10.2019, following Presidential Decree No.48, the eGovernment tasks performed by the Ministry of Transport and Infrastructure were assigned to the DTO. The Decree also introduced the position of Government Chief Digital Officer (GCDO) and assigned this role to the Head of the DTO. Accordingly, the responsibilities of the DTO are:

- To lead the digital transformation of the public sector in line with the goals, policies and strategies set by the President of the Republic, mediate the delivery of Digital Türkiye (eGovernment) services, increase and coordinate the cooperation among institutions;
- To prepare the roadmap for the digital transformation of the public sector;
- To foster cooperation among public and private sector organisations, universities and NGOs to create a digital transformation ecosystem and encourage participation in the design and delivery of digital public services;
- To present opinions to the Presidency of Strategy and Budget (SBB) on investment project proposals submitted by public institutions and organisations regarding topics that fall within its mandate, track the projects put in practice and offer guidance when required;
- To develop projects to improve the security of information and cyber security;
- To develop strategies for the efficient use of big data and analytical solutions in the public sector, and to lead and coordinate their implementation;
- To lead and coordinate AI practices in the priority project areas in the public sector;
- To develop projects in order to advance domestic and national digital technologies through their use in the public sector and raise awareness in this field; and
- To identify strategies for the cost-effective procurement of digital technology products and services by public institutions and organisations.

#### Presidency of Strategy and Budget (SBB)

The SBB, is responsible for preparing high-level policy documents of Türkiye, namely the development plan, the annual program, the mid-term program and the financial plan, as well as sectoral plans and programs when it deems necessary. Therefore, digital government policies are designed and shaped at the highest level through these policy documents in coordination with relevant public institutions. In addition, SBB allocates budgets to projects of central government institutions and prepares the Presidential Public Investment Program.

#### Ministry of Industry and Technology (MoIT)

Within the scope of the digital public administration in the public sector, the following responsibilities belong to the MoIT: contribute to the implementation of high-impact programs and projects to improve Türkiye's technological competence within the scope of the National Technology Move; contribute to strategy and policy studies on issues such as the IT sector, advanced technology sectors, R&D, design and innovation activities; take measures, implement support and incentive programs, and lead programs and projects to increase domestic and national production competencies in the IT and advanced technology sector; develop digital economy applications; implement programs in open source software and systems and open data.

#### Scientific and Technological Research Council of Türkiye (TÜBİTAK)

TÜBİTAK is the leading public agency for managing, funding and conducting research in Turkey, under the Ministry of Industry and Technology. It is also involved in a number of other



eGovernment or R&D related activities, such as AI, open data, electronic authentication systems, e-signature, blockchain, high-performance computing (HPC), and providing guidance on the standardisation of public sector websites. In addition to supporting innovation, academic and industrial R&D, TÜBİTAK develops scientific and technological policies in line with national priorities and manages R&D institutes that carry out research, technology and development. TÜBİTAK also funds research projects carried out in universities and other public and private institutions, conducts research in strategic areas, develops support programs, publishes scientific journals, popular science magazines and books, organises science and society events, and supports undergraduate and graduate students with scholarships.

### Ministry of Transport and Infrastructure

Pursuant to the [Electronic Communications Law No. 5809](#), the [Ministry of Transport and Infrastructure](#) is responsible for: determining strategies and policies for electronic communication services based on scarce resources such as numbering, internet domain names, satellite position, frequency allocation; determining policies to ensure electronic communication infrastructure, network and services are established, developed and implemented in a complementary manner in accordance with technical, economic and social needs, public interest and national security purposes; taking the necessary measures and ensuring coordination to prevent electronic communication from being disrupted due to natural disasters and extraordinary situations.

### Information and Communication Technologies Authority (BTK)

The [Information and Communication Technologies Authority \(BTK\)](#), which is the national regulatory and supervisory authority in the field of electronic communications/telecommunications and postal services, was established in 2000 by [Law No. 2813](#) as a public legal entity with administrative and financial autonomy. ICTA's duties and authorities in the electronic communications sector are set out in the [Electronic Communications Law No. 5809](#) and with the enactment of the [Postal Law No. 6475](#), it became responsible for the regulation and supervision of the postal sector as of 2013.

### TurkSat Satellite Communication and Cable TV Operation Inc.

Under the supervision of the DTO, TurkSat builds, develops and operates eGovernment Gateway, providing citizens, enterprises and government agencies with a single point of access to eGovernment services. The company also supports the digital transformation of public institutions by providing technical know-how for the integration of their services into the eGovernment Gateway.

### Personal Data Protection Authority (PDPA)

The [Personal Data Protection Authority \(PDPA\)](#) is responsible for the compliance of [Personal Data Protection Law \(PDPL\)](#) in all fields, including systems and services related to eGovernment. To enhance transparency and accountability in personal data processing operations, the PDPA manages the [Data Controllers Registry Information System \(VERBİS\)](#) where information such as the identity of the data controller, the purpose for which the personal data will be processed, explanations regarding the group(s) of persons subject to the data and their data categories are kept and made publicly available. The Personal Data Protection Authority also operates the [ALO 198 Data Protection Information Consultancy Hotline](#) established in order to provide information on the issues regulated in the PDPL and secondary legislation.

### The General Directorate of Geographic Information Systems

The [General Directorate of Geographic Information Systems](#) established in 2011 under the Ministry of Environment, Urbanisation and Climate Change is responsible for establishing and developing the National Geographic Information System, promoting the effective use of modern geographic information technologies, regulating urban information systems, ensuring inter-institutional coordination, determining standards for national geographic data production and sharing, participating in international data networks and carrying out certification studies. In addition, the [Smart Cities Department](#) under the General Directorate is responsible for conducting studies on smart cities, developing a national strategy and ensuring its implementation.

### Digital Medias Commission

The [Digital Medias Commission](#) was established by [Article 1 of the Law No. 7252 dated 23.07.2020 on the Establishment of the Digital Medias Commission and Amendments to Certain Laws](#). The



Commission was established to examine, discuss, report, recommend and give opinions on the measures taken and activities carried out to prevent the use of the internet in violation of the law, personal rights, privacy and other fundamental rights and freedoms of individuals or in a way that harms the physical and psychological development of children.

### Foreign Economic Relations Board (FERB) - Digital Technologies Business Council (Digitech)

DEİK/Digital Technologies Business Council, established in February 2022 with the support of the DTO, focuses on globalising Türkiye's digital technologies ecosystem to drive economic growth, facilitate international financing and promote digital transformation. DIGITECH's goals include increasing Turkish companies' presence in the Fortune 500 and nurturing Turkish unicorns (Turcons), establishing Türkiye as a tech hub and fostering digital connections with other countries, boosting high technology product exports, facilitating the international expansion of tech firms through DEİK's bilateral business councils, supporting industrial companies' digital transformation through start-ups partnerships, expanding venture capital investments, and addressing regulatory challenges. Under the umbrella of the Business Council; Cloud Technologies, Fintech, Mobile Technologies, Gaming, Cyber Security, Software Technologies, Innovative Technologies, Venture Capital, Health Technologies, Web3-Blockchain committees continue to work actively.

## Subnational (Federal, Regional and Local)

### Ministry of Environment, Urbanisation and Climate Change

With the transition to the Presidential Government System in 2018, the responsibility for local governments was transferred to the Ministry of Environment, Urbanisation and Climate Change. The oversight responsibility of the Ministry of Interior, formerly in charge of local governments, persists through a protocol signed with the new Ministry in charge in 2018.

### The General Directorate of Local Governments

The **General Directorate of Local Governments** under the Ministry of Environment, Urbanisation and Climate Change is in charge of regulating the relations of local governments with the central administration, carrying out the functioning of local governments, ensuring that local government investments and services are implemented in accordance with development plans and annual programs, conducting research and statistical analysis to improve the administrative and technical capacities of local governments.

### The Union of Municipalities of Türkiye (UMT)

The **Union of Municipalities of Turkey (UMT)**, established in 1945, initially operated as a public benefit association to protect the rights and interests of municipalities. In 2022, the UMT gained the status of a union of local administrations with the **decision of the Council of Ministers dated 21.08.2002 and numbered 2002/4559**. Following the adoption of **Local Administrative Unions Law No. 5355** in 2005 as well as the approval of the **Union of Municipalities of Türkiye Statute**, UMT became the only local government union representing all municipalities at national and international levels. Some of the duties of the UMT include providing guidance and consultancy services to municipalities; promoting the use of information technologies and e-municipalism; assisting municipalities in accessing national and international funding and supporting local governments in the EU harmonisation process.

### Local Administrations

The **Twelfth Development Plan (2024-2028)** includes policies to clarify municipalities duties and authorities, enhance citizens participation in decision-making and improve coordination between metropolitan and district/provincial municipalities. The **e-Municipality** platform, developed by the Ministry of Interior and the Ministry of Environment, Urbanisation and Climate Change offers municipalities a standardised tool and infrastructure for online service provision, eliminating the need for individual software licenses and hard ware investments. Municipal eServices were integrated into the **eGovernment Gateway** in June 2012. As of the end of 2023, 466 municipalities in 81 provinces offer eGovernment services through the Gateway and further integration efforts are ongoing.

## 8. 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.

### 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).

### 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 Digital Services (DG DIGIT) and the Directorate General for Communications Networks, Content & Technology (DG CONNECT). This factsheet received valuable contribution from Digital Transformation Office (DTO); Grand National Assembly of Türkiye (TBMM); Directorate of Communications of the Presidency of Türkiye; Directorate of State Archives; Human Resources Office of the Presidency of the Republic of Türkiye; Ministry of Agriculture and Forestry; Ministry of Culture and Tourism; Ministry of Energy and Natural Resources (MENR); Ministry of Environment, Urbanization and Climate Change; Ministry of Family and Social Services; Ministry of Foreign Affairs (MFA); Ministry of Health; Ministry of Industry and Technology ; Ministry of Justice; Ministry of Labour and Social Security (ÇSGB); Ministry of National Education (MEB); Ministry of Trade; Ministry of Transport and Infrastructure (UAB); Ministry of Treasury and Finance (HMB); Ministry of Youth and Sports; Directorate for EU Affairs; Personal Data Protection Authority (KVKK); Personal Procurement Authority (KİK); Radio and Television Supreme Council (RTÜK); Human Rights and Equality Institution of Türkiye (TİHEK); Supreme Election Council (YSK); The Central Bank of the Republic of Türkiye (CBRT); The Scientific and Technological Research Council of Türkiye; Turkish Accreditation Agency (TURKAK); Turkish Patent and Trademark Office ; Turkish Statistical Institute (TurkStat); Information and Communication Technologies Authority (BTK); Banking Regulation and Supervision Agency (BDDK); Capital Market Boards of Türkiye (SPK); Council of Higher Education (CoHE); Small and Medium Enterprises Development Organization (KOSGEB) and The Union of Municipalities of Türkiye (UMT)



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

## An action supported by Interoperable Europe

The ISA<sup>2</sup> Programme has evolved into Interoperable Europe - the initiative of the European Commission for a reinforced interoperability policy.

The work of the European Commission and its partners in public administrations across Europe to enhance interoperability continues at full speed despite the end of the ISA<sup>2</sup> programme. Indeed, enhanced interoperability will be necessary to unlock the potential of data use and reuse for improved public services, to enable cross-border collaboration, and to support the sector-specific policy goals set by the Commission for the future.

Interoperable Europe will lead the process of achieving these goals and creating a reinforced interoperability policy that will work for everyone. The initiative is supported by the *Digital Europe Programme*.

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