2017
E-GOVERNMENT IN TURKEY: AN OUTLOOK

TÜBİTAK
BİLGEM
YTE

Software Technologies Research Institute

Digital Transformation Research Series-1
Version 2.0 / January 2017

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EXECUTIVE SUMMARY

The objective of this document is to compile the current information about the e-Government policy in Turkey and the activities being conducted in this field to enable easy access to this information by national and international authorities.

The report consists of following chapters:

- e-Government policy and governance structure
- Common infrastructure, standards and applications
- National portal
- Government informatization personnel management
- Online services
- e-Participation
- Open government / Open data
- Cyber security

This study is prepared by TUBITAK BİLGEM-YTE Digital Transformation Experts based on open access online resources in line with the international e-government benchmarking studies (United Nations, European Union and Waseda University).

By this report, it is aimed at sharing accurate and up to date information on e-Government activities in Turkey in Turkish and English. The report content will be updated and shared with authorities regularly. This study is the 2nd version of the Report.

The Report and the reference links are also accessible on www.dijitaldonusum.gov.tr, knowledge sharing platform for digital transformation.

Please use epid.yte@tubitak.gov.tr for sending feedbacks on report by attaching relevant content and references.

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1 THE E-GOVERNMENT POLICY AND ORGANIZATION STRUCTURE

1.1 The e-Government Policy

Contrary to the past years, there are two basic strategy documents in Turkey that regulate the e-Government activities. The Ministry of Development prepares the information society policy in accordance with national development goals in Turkey (The 2015-2018 Information Society Strategy and Action Plan). On the other hand, e-Government policy (2016-2019 National e-Government Strategy and Action Plan) is prepared in the framework of the information society policy by the Ministry of Transportation, Maritime Affairs, and Communication (MTMC).

By creating a project and participation portal (information society, e-Government) for both strategy documents, the resources of technology encouraging participation in technology, including the social media, were utilized. Information about the process of conducting strategy document preparation work was shared through these portals; and a variety of ideas and suggestions were collected over forums from different people and organizations.

Other than these two strategy documents determining the national goals and priorities in Turkey are the Tenth Development Plan with Priority Transformation Programs Action Plan, 65th Government Program and 2016 Action Plan are in force. The Tenth Development Plan including e-Government work sets forth Turkey's general direction while the 65th Government 2016 Action Plan including e-Government assigns the Government's short term priorities.

It is observed that in addition to strategy plans that determine the framework of e-Government policies, various targets, projects and actions are included in sector/thematic strategy documents like "The Action Plan Program to Reduce Unrecorded Economy", "The Transportation and Communication Strategy Goal 2023 of Turkey", "The 2014-2023 Smart Transportation Systems Strategy Document", "The 2014-2023 Road Map Document for the Protection of Critical Infrastructure," "The Disaster Response Plan for Turkey," "The 2016-2019 National Cyber Security Strategy and Action Plan," and "The 2017-2019 Software Strategy and Action Plan of Turkey"

The 2015-2018 Information Society Strategy and Action Plan was officially published on 06.03.2015. The 2015-2018 Information Society Strategy and Action Plan aims to gain a powerful and competitive structure for the information sector, to increase the penetration of in other sectors and to support the rise of growth and employment in the economy by creating an ecosystem suitable for internet enterprises. The "User Focus and Effectiveness in Public Services" axis determined for the information society policy guides the general framework for e-Government work.

The Information Society Strategy (2015-2018)

Growth and Employment

Strategic Priorities

8 Strategic Priorities		26 Responsible Agencies
Information Technologies Sector	Broadband Infrastructure and Sector Competition	
Qualified Human Resources and Employment	ICT Penetration in Society	

72 Actions		30 Indicators
Information Security and User Trust	ICT Supported Innovative Solutions	
Internet Entrepreneurialism and e-Commerce	User-Centricity and Effectiveness in Public Services	

The 2016-2019 National e-Government Strategy and Action Plan sets forth and integrated structure that focuses on e-Government work in the framework of information society policies and goals. By emphasizing Turkey's existing conditions, a citizen oriented digital transformation, social networks, governance, transparency and accountability; it has become necessary to redefine the relations between all stakeholders, who play a role in the planning, decision-making and applications in the field of e-Government, and the government. An integrated and sustainable "e-Government ecosystem" strategic perspective has been embraced in the shaping and implementation of the 2016-2019 National e-Government Strategy and Action Plan. The strategy and action plan has been prepared with a common intellectual and scientific perspective in which the analysis work of all ecosystem stakeholders, central administration units, local administrations, citizens, the private sector, professional organizations, nongovernmental organizations and universities are included. In this scope, 27 Focus Group Meetings and 3 Workshops have been organized for Local Administration Services, SWOT-PEST, and Needs Assessment. Also 4 widely participated surveys have been conducted for measuring satisfaction and perception have been conducted among central administrations, local administrations, the private sector and citizens.

The objective of the 2016-2019 National e-Government Strategy and Action Plan is to form the necessary skills in line with Turkey's 2023 national goals and provide an elevating effect to the welfare of the country. In this context the vision of the 2016-2019 National e-Government Strategy and Action Plan has been defined as "**Increasing the society's quality of living with ETKİN (EFFECTIVE) e-Government"**. In the new term the focus of the e-Government work will be to create an "**ETKİN" (EFFICIENT) e-Government ecosystem** that is **E**ntegre (Integrated), **T**eknolojik (Technological) **K**atılımcı (Participatory), **İ**novatif (Innovative) and **N**itelikli (Qualified) spelling out "**ETKİN" (EFFICIENT)**. The e-Government ecosystem will take a more competent and agile position as the driving force of transition to the information society and sustainable development. 4 strategic objectives, 13 goals and 43 actions have been determined in line with the 2016-2019 National e-Government Strategy and Action Plan vision. The following strategic objectives have been determined to achieve the e-Government vision with an e-Government ecosystem perspective:
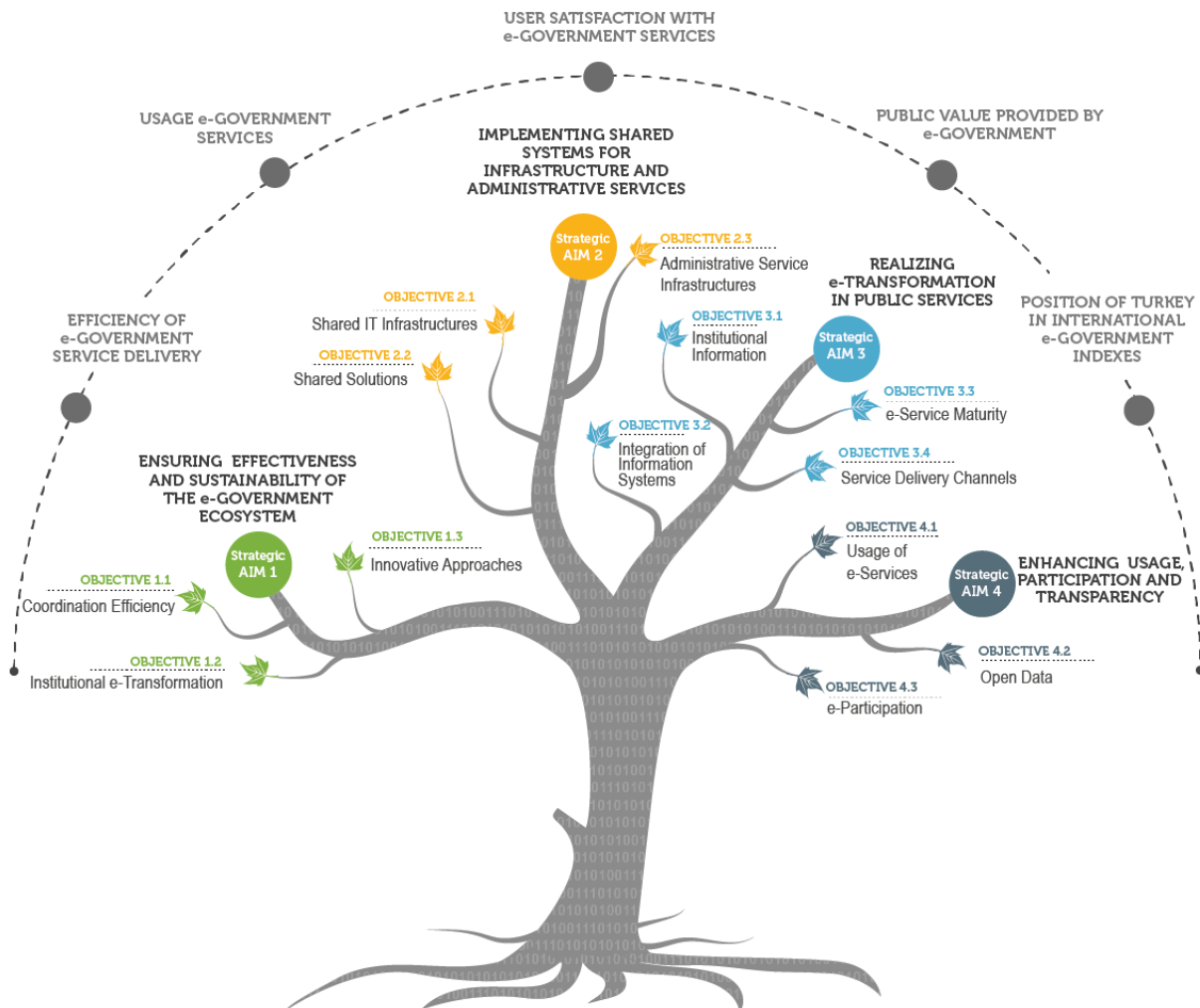
- Strategic Aim 1: Ensure the Efficiency and Sustainability of the e-Government Ecosystem
- Strategic Aim 2: Activate Joint Systems for Infrastructure and Administrative Services
- Strategic Aim 3: Ensure e-Transformation in Public Services
- Strategic Aim 4: Increase Usage, Participation and Transparency

2016-2019 NATIONAL e-GOVERNMENT STRATEGY AND ACTION PLAN

VISION
Improving the quality of Life for Society with
ETKİN (EFFICIENT) e-Government

Focus of 2016-2019 National e-Government Strategy
ETKİN (EFFICIENT) e-Government Ecosystem

USER SATISFACTION WITH e-GOVERNMENT SERVICES

USAGE e-GOVERNMENT SERVICES

PUBLIC VALUE PROVIDED BY e-GOVERNMENT

IMPLEMENTING SHARED SYSTEMS FOR INFRASTRUCTURE AND ADMINISTRATIVE SERVICES

Strategic AIM 2

OBJECTIVE 2.3 Administrative Service Infrastructures

REALIZING e-TRANSFORMATION IN PUBLIC SERVICES

OBJECTIVE 2.1 Shared IT Infrastructures

OBJECTIVE 3.1 Institutional Information

OBJECTIVE 2.2 Shared Solutions

Strategic AIM 3

OBJECTIVE 3.3 e-Service Maturity

EFFICIENCY OF e-GOVERNMENT SERVICE DELIVERY

POSITION OF TURKEY IN INTERNATIONAL e-GOVERNMENT INDEXES

OBJECTIVE 3.2 Integration of Information Systems

OBJECTIVE 3.4 Service Delivery Channels

ENSURING EFFECTIVENESS AND SUSTAINABILITY OF THE e-GOVERNMENT ECOSYSTEM

OBJECTIVE 4.1 Usage of e-Services

Strategic AIM 1

OBJECTIVE 1.3 Innovative Approaches

Strategic AIM 4

ENHANCING USAGE, PARTICIPATION AND TRANSPARENCY

OBJECTIVE 1.1 Coordination Efficiency

OBJECTIVE 4.2 Open Data

OBJECTIVE 1.2 Institutional e-Transformation

OBJECTIVE 4.3 e-Participation

Entegre
(Integrated)

Will ensure the ability to work together with an integrated perspective and cooperation

Teknolojik
(Technological)

Will dynamically adapt to and use technology according to the needs

Katılımcı
(Participatory)

Will be shaped with its focus on people with a participatory, transparent and accountable approach

İnovatif
(Innovative)

Will bring forth innovative and environment-friendly approaches and turn them into opportunities

Nitelikli
(Qualified)

Will produce quality services to satisfy the requirements for usability, accessibility and information security

Monitoring and assessment activities are being conducted in a systematic manner during the implementation of the action plan. A change management model has been implemented to make sure that the 2016-2019 National e-Government Strategy and Action Plan can adapt to changing conditions. A [Strategy and Action Plan Monitoring and Evaluation System (SEPSIS)](#) has been developed to systemically gather the data that will constitution the basis for the Monitoring and Assessment Model and conduct the monitoring activities efficiently. SEPSIS is an application that is accessible on egovernment.gov.tr by all responsible and relevant agencies / institutions. The distribution of roles within the scope of the monitoring, measuring and assessment process has been planned in detail. After the action plan has been implemented the changes that are generated will be handled within the defined change management process. The objective is for the action plan to have a dynamic structure that is updated according to current conditions.

Ongoing Work:

In line with the action of *"32. Developing the Digital Turkey Project road map and starting the implementation accordingly"* included in the 65th Government 2016 Action Plan and within the scope of the title "The New Constitution and The System" and subtitle "Governance" the road map of an infrastructure that will enable citizens to conclude their business and transactions in a virtual setting without having to go to public agencies and institutions will be developed and implemented.

1.2   E-GOVERNMENT LEGISLATION

There is presently no umbrella Law for the inclusion of e-Government policy in public administration in Turkey. Relevant provisions are within Ministry responsibilities. Expressions concerning e-Government work and responsibilities were first included at law level after the regulations that were organized on ministry organization and duties in 2011. Per article 2 clause (f) of the Statutory Decree (SD) on the Organization and Duties of the Ministry of Transportation, Maritime Affairs and Communication [No. 655](#), which went into force after publication in the Official Gazette no. 28102 bis, dated November 1, 2011, the responsibilities concerning e-Government are as follows:

"Determining the principles and procedures for the scope and implementation of the e-Government services by providing the necessary cooperation and coordination with relevant public agencies and institutions within the framework of information society policies, targets and strategies; making action plans concerning

these services, conducting the coordination and monitoring activities, making the necessary arrangements and coordinating relevant activities in this scope."

The annex of the [Council of Ministers Resolution no. 2009/15169](#) entitled "[Regulation on the Procedures and Principles to be complied with in the Provision of Public Services](#)" is considered to be one of the first regulations concerning the work procedures and principles of e-Government. The regulation set forth the procedures and principles that must be followed by administrations in order to create an effective, efficient and accountable public administration and provide public services in a faster, better quality, simplified and more cost efficient manner. In this scope, the application for the administration to prepare a public services inventory and services standard was started. Generally, it is observed that tables and inventories are shared on websites by agencies and institutions under these headings. Some headings have been underlined in Regulations to simplify work concerning e-Government services.

"[Regulation on the Procedures and Principles Concerning Conducting e-Government Services](#)" which went into force being published in the Official Gazette dated September 3, 2016 was prepared in line with Statutory Decree No 655. With implementation of the Regulation, coordination and monitoring process is established as well as common principles binding for public agencies and institutions regarding conducting and presenting e-Government services. Besides, reporting of development and sustainability of coordination in e-Government Action Plan is expected with the Regulation.

There is an indirect need of regulations in e-Government ecosystem. These regulations are discussed under relevant subjects in this Report.

> **Ongoing work:**
>
> The regulatory work to meet administrative and technical needs in line with the "*E1.1.1-Development of an e-Government Ecosystem*" in the 2016-2019 National e-Government Strategy and Action Plan and the "*69. Review of the e-Government Regulation*" in the 2015-2018 Information Society Strategy and Action Plan will be completed.

1.3   THE E-GOVERNMENT ORGANIZATIONAL STRUCTURE

After the restructuring of Ministries in 2011, the role of Prime Ministry and 3 Ministries within the scope of e-Government became an issue:

- The Prime Ministry, Directorate for Administration Development is responsible for developing public administration, simplifying administrative principles and procedures and coordinating legislative work (Law No. 3056),

- The Ministry of Development, Information Society Department is responsible for the preparation of information society and information economy policies in compliance with national goals and planning public investments including public ICT investments (SD No. 641[1]),

- Ministry of Transportation, Maritime Affairs and Communications, Directorate General of Communications is responsible for developing and regulating all ICT infrastructures including the internet and ensuring cyber security and coordinating activities to determine the procedures and principles for the e-Government action plan (SD No. 655),

- The Ministry of Science, Industry and Technology, Directorate General of Science and Technology is responsible for the policies, incentives and standards for R&D including the ICT sector (SD No. 635).

The technical activities concerning e-Government are carried out by various public agencies and institutions in line with Ministry responsibilities:

The following subsidiary agencies under the Ministry of Transportation, Maritime and Communications;

- The Information Technologies and Communications Agency regulates and makes sure other measures are taken towards the information and communication technologies sector like the wideband, e-signature, information security and mail services. The agency has a regulatory and supervisory status.

    o The National Response to Cyber Incidents Center (USOM), within the ICT structure, provides national and international coordination for measures to be taken against national cyber security incidents.

- In addition to operations in satellite technologies, the Türksat Satellite Communication Cable TV and Operations Inc. (TÜRKSAT) operates the e-Government Gate within the scope of information services and conducts projects for public services to be presented over electronic format. The agency has a public company status.

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[1] Statutory Decree

The below subsidiary agencies under the Ministry of Science, Industry and Technology carry out the following tasks;

- The [Scientific and Technological Research Council of Turkey (TÜBİTAK)](#) supports the development of capacity and innovation necessary for an information society and e-Government with the science, technology and innovation policies and actions it coordinates. This Agency, which has the largest R&D capacity in Turkey, enables critical e-Government technologies and solutions to be developed with national resources by means of its subsidiary institutes.

  o The [TÜBİTAK-BİLGEM Information Technologies Institute (BTE)](#) does large scale and applied research on the information and communication fields and conducts projects.

  o The [TÜBİTAK-BİLGEM Public Certification Center (KSM)](#) administers the e-Signature and Financial Seal infrastructure for public agencies and provides necessary advisory services.

  o The [TÜBİTAK-BİLGEM Cyber Security Institute (SGE)](#) conducts research and development activities in the cyber security field; conducts projects directed at solutions for military agencies, public agencies and institutions and the private sector and provides advisory services.

  o The [TÜBİTAK-BİLGEM National Electronic and Cryptology Research Institute (UEKAE)](#), develops necessary technology and standards for e-Identification and e-Signature products requiring high security.

  o The [TÜBİTAK-BİLGEM Software Technologies Research Institute (YTE)](#) provides for the R&D software needs of the public and private sector and provides e-Transformation services for public agencies in line with e-Government planning, enterprise architecture and policy monitoring and evaluation actions.

- [Turkish Standards Institute (TSE)](#) conducts standard publication, certification, testing and education activities directed at information technologies and cyber security.

Ongoing Work:

An e-Government Organization Model will be developed to conduct e-Government policies in cooperation with stakeholders and to increase in-agency and above agency coordination in e-Government work in line with the "*E1.1.1-Development of an e-Government Ecosystem*" action in the 2016-2019 National e-Government Strategy and Action Plan.

2 COMMON INFRASTRUCTURE, STANDARDS AND APPLICATIONS FOR E-GOVERNMENT

2.1 COMMON INFRASTRUCTURE AND SERVICES

2.1.1 e-Identification

In the present situation, although the use of e-Identification cards are not obligatory yet in Turkey, the work to generalize it has been started since 2016. The national e-Identification card ([Republic of Turkey Identification Card](#)) development whose improvement work has been conducted through pilot implementations since 2007, has been completed. The e-Identification card has been designed to be easily carried, difficult to imitate, manipulate or falsify, with biometric properties to meet the needs of citizens in the dimensions of a credit card.

Ongoing work:

The period of transition to using the e-Identification card, which will contribute significantly to the maturation of electronic services, still continues. The objective is to gain identity verification ability to the e-Government services and to update these services to enable these cards to be used. The action of "201. The distribution of e-Identification Cards to citizens will be started" is included in the 64th Government Action Plan.

2.1.2 Electronic Signature

[The Electronic Signature Law No. 5070](#), which determines the scope of principles and procedures for using electronic signatures in Turkey, went into force in 2004. The Law accepts secure e-signatures in accordance with procedure to be equivalent to wet signatures. Regulations and communiqués have been enacted to determine the principles and procedures after the law was issued. An important legislative infrastructure was provided in this scope. The European Commission's Electronic Signature Directive 1999/93/EC was used as a reference document in determining the relevant principles and procedures.

The mobile signature application is also a method used commonly in Turkey. This service is provided by all existing GSM enterprises (Türk Telekom, Turkcell and Vodafone).

There is also the matter of the Financial Seal application directed at legal persons. The certificates produced is used to secure the integrity, source and content of certificates, invoices and other legal documents that are produced as electronic documents by legal persons, agencies, institutions and enterprises.

> **Ongoing work:**
>
> Infrastructures will be developed to enable identification verification processes to be done centrally for the electronic services provided by public agencies and institutions in line with the action of "*E2.2.1-Generalizing the Central Identity Verification System for Natural and Legal Persons*" ain the 2016-2019 National e-Government Strategy and Action Plan. Work continues to make sure the Law no. 5070 and other regulations are compatible with the EU Regulation 910/2014.

2.1.3   Electronic Document

The Prime Ministry Circular No. 2008/16 sets forth the Electronic Document Standards to be used by public agencies and institutions. In 2015, "the Regulation on Procedures and Principles to be used in Official Correspondence" was published to eliminate problems in application at different standards used in agencies over time. This Regulation has brought the compliance of public agency and institution official correspondence in electronic format to the e-Correspondence Technical Guidelines as a requirement.

One of the other applications preferred in Turkey to share documents is Registered Electronic Mail (REM). The regulation on procedures and principles concerning the REM was published in 2011.

The activities to generalize the practice of official notifications to natural and legal persons being made over REM in line with the "Electronic Notification Regulation" published in 2013 are ongoing. In the existing application the e-notification system is being implemented in tax and justice services. The use of e-notification for legal transactions on UYAP began as of June 2015. This is mandatory for legal persons of a certain scale and voluntary for other natural and legal persons. As of January 1, 2016 it has

become mandatory for the taxpayers in a certain scope to use e-notification with [General Notification (No. 467) of Tax Procedure Law](#).

> **Ongoing work:**
>
> In line with the "*E2.1.2-Establishing Electronic Data and Document Sharing Infrastructures*" action included in the 2016-2019 National e-Government Strategy and Action Plan, infrastructures necessary to enable sharing of electronic documents in the public sector and reduce transactions carried out on paper so that services can be completed at one time, will be developed and the use of these infrastructures will be generalized. Also the action of generalizing the e-Correspondence application throughout agencies continues.

2.1.4   Data Sharing

The data sharing among public agencies is generally performed over corresponding secure VPN connections. The Prime Ministry Circular No. 2016/28 on "Inclusion of Public Agencies and Institutions to KamuNet" published in December 3, 2016 sets forth the necessity of inclusion of public agencies and institutions to KamuNet.

KamuNet (Public Virtual Network) has been constructed and started to generalize in cooperation with and MTMC and Türk Telekom with the purposes of reducing risks of cyber security by providing interinstutional data communication on an offline virtual network which is more protected against physical and siber attacks, setting a standard in interinstutional communication, constructing convenient infrastructure for common procedures, inclusion of common data center / centers planned, common use of e-Government applications safely and provision of interinstutional cloud applications which is served on line currently more safely without regard of internet until a new and secure public infrastructure is enabled.

Article 51(1) which was added to Electronic Communication Law No. 5809 in 2015 set forth the provisions especially related to confidentiality of electronic communication and the relevant traffic data.

In the meantime, official agencies are able to share data over the [Public Applications Center](#) platform (kamu.turkiye.gov.tr), which was developed under the e-Government Gateway. This center is a platform on which official agencies can share data, provide e-services to other agencies and access statistical information concerning their e-services. It also provides an administrative platform for inter-agency data sharing.
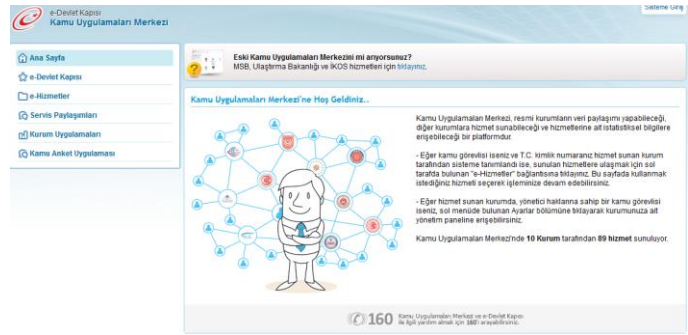
> **Ongoing work:** In line with the "*E2.1.2-Establishing Electronic Data and Document Sharing Infrastructures*" action included in the 2016-2019 National e-Government Strategy and Action Plan, infrastructures necessary to enable sharing of electronic documents will be developed and the use of these infrastructures will be generalized.

2.1.5   Public Integrated Data Center

Important data centers have been established in Ministries in line with rising needs. However, after the Supreme Council for Science and Technology (BTYK) [Decree No. 2013/104](#) issued in 2013, the goal has been set forth to establish national data integration centers do that data centers can be operated more productively and securely. Following modifications related to the issue were made on the subject in the [Electronic Communication Law No. 5809 in 2015](#):

"Article 5(1) ı) To determine policies, strategies and aims regarding national public integrated data centers, preparing and monitoring action plans, constructing and operating required infrastructure including transfer of data, enabling it to be constructed and to be operated with the purpose of collecting data centers which covers data and systems used in e-Government services in public integrated data center, determining procedures and principles on these activities, planning, conducting and coordinating application and operation process of these."

Agencies were contacted and feasibility work was started for a public integrated data center.

> **Ongoing work:**
>
> In line with the action of "*E2.1.1-Establishing and Implementing Public Integrated Data Centers*" included in the 2016-2019 National e-Government Strategy and Action Plan, public integrated data centers will be established and implemented so that public resources can be used more

productively, information technologies management can be done at a standard level throughout all agencies, data centers can be consolidated and individual / duplicate data center investments can be prevented.

2.1.6   Interoperability Activities, Standards and Guides

The issue of interoperability at a technical level among public agencies in Turkey has been included in the strategy plans since the work associated with e-Government first started. The "Interoperability Principles Guidelines" were prepared and the first version in line with these activities was published in 2005. A Prime Ministry Circular was published in 2005 and 2009 concerning the application of these guidelines. The guidelines, which were updated most recently in 2012, are required to be implemented by central and local governments. However the desired success in generalizing the guidelines has not been achieved.

The "Public Agencies Website Guide", for which the first version was published in 2006 for public websites in Turkey, has been updated at various intervals and is published over the Internet. With the Prime Ministry Circular No. 2007/4 complying with the procedures and principles in the aforementioned Guide has been mandatory for all newly opening websites of public agencies and institutions at central and local level. The Guide was updated most recently in 2014 in line with the newest technologies by KAMİS Project. The TSE K 318 criteria were prepared for the use of agencies based on the guidelines updated in 2014.

Other than the guide and guidelines, international standards under such headings as document management, system lifecycle and information security were localized, and are now being published by the Turkish Standards Institute (TSE).

Ongoing work:

In line with the action of "*E1.1.4-Preparing and Updating of e-Government Ecosystem Guidelines*" in the 2016-2019 National e-Government Strategy and Action Plan the existing guidelines will be updated and new guidelines in lines with needs will be prepared for the efficient and sustainable

function of the e-Government ecosystem especially for interoperability, public agency / institution websites and mobile applications and the use and management of social media accounts by public agencies / institutions.

2.1.7   Enterprise Architecture and Metadata

In the existing situation the [Electronic Public Information Management System (KAYSİS)](), Interoperability Principles Guide and other technical standards comprise the national enterprise architecture in pieces. There is also enterprise architecture work being conducted at agency level.

KAYSİS is an application that supports interoperability between agencies with the provision of the most basic metadata and standards for the government organization and public services in Turkey. The EPIMS, developed and operated by the [Prime Ministry Directorate for Administration Development](), is comprised of a number of infrastructures in which different levels of functions are managed.
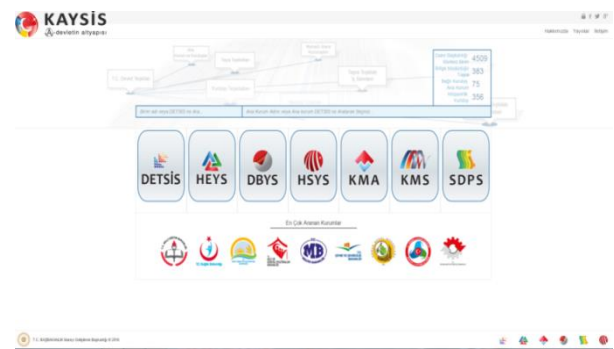
With the "[Regulation on the Procedures and Principles to be Applied in Providing Public Services]()" published in 2009, an inventory of public services was started. All agencies are entering their service inventories using the specified templates and libraries on EPIMS in electronic format. The aim here is to centrally manage all records associated with the detailed tags of services, service standards, legislation the service is based on, the documents and data necessary for the service and the documents and data that is created as a result of the service. A [standard file plan system]() has been developed for managing correspondence between agencies and archive management. The service inventory and the system associated with the [Government Organization Central Records System (DETSİS)]() enable all official correspondence between agencies to be classified. DETSİS is positioned at the center of the system to achieve interoperability between agencies. The system, for which the first version dates back to 1991, has had the ability to show central, rural and foreign organizations and all non-governmental units belonging to local governments since 2014. Each unit has an assigned DETSİS No. All agencies are required to keep their hierarchic structures up to date on this system.

There are data dictionaries on service basis in Turkey. The most widely used one is the data dictionary created for the health sector. The [National Health Data Dictionary (USVS)]() is a dictionary project in health

agencies in Turkey to be used as a reference by hospital information systems that has been in force since 2007.

Another widely used standard metadata work is used in financial services. The XBRL based e-fatura (e-bill) and e-defter (e-ledger) application are being used in line with the Tax Procedures Law and the Turkish Commercial Code. These applications that had been in force since 2010 are now mandatory as of January 1, 2016 for taxpayers.

> **Ongoing work:**
>
> Work to transmit detailed information and update document and data sets for EPIMS services continues. A Public Information Systems Inventory (BİLSİS) sub-application is being developed to associate services that are specified to be provided in electronic setting on the service inventory and the systems that enable provision of these services; and to determine the information infrastructure of agencies. A Public Strategic Management System (KSYS) is being developed to associate the plans prepared by agencies with the operations that are carrying out. At the same time public satisfaction surveys can be filled out. Achieving a satisfaction based management is aimed by bringing the system more up to date.
>
> In line with the action of "*E1.1.3-Development of an Enterprise Architecture for e-Government*" included in the 2016-2019 National e-Government Strategy and Action Plan, the goal is to make the enterprise architecture integrated, implement it nationally and develop it by agency for all public agencies.

2.2　COMMON ADMINISTRATIVE E-GOVERNMENT SERVICES

2.2.1　Public Finance Management

With the Budget Management Information System (e-Bütçe) developed by the Ministry of Finance Directorate General of Budget and Fiscal Control all budget approval and allowance procedures, including budget proposal processes, of all public agencies and institutions are able to be managed in electronic format.
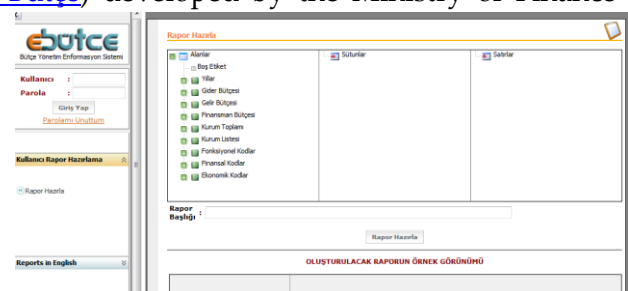
The public expenditure and accounting information system (KBS) is used to conduct the allocation, expenditure, accounting and final account transactions in electronic format after budget forming processes in public finance management. The KBS developed by the Directorate General of Public Accounts is being actively used in about 60.000 spending units.

The SGB.net application, which was developed in 2007 and later opened to public agencies that requested to use it, is an integrated system that includes the modules needed by public agencies for strategic planning and audit.

Ongoing work:

In line with the actions of "*E2.3.1-Development of Applications for Common Administrative Services*" and "*E2.3.2-Development of Applications for Similar Services Provided by Local Governments*" in the 2016-2019 National e-Government Strategy and Action Plan, applications that can be used jointly by central and local governments will be determined, needs will be identified, applications will be developed and generalized throughout the public sector. The existing applications will be gradually replaced with new applications that are developed using a central cloud infrastructure.

Work towards eliminating the duplications and incompatibilities that have developed over time amongst the public finance administration and control systems and updating the systems according to new technologies has been started by the Ministry of Finance. In line with the "Integration of Information Systems Associated with Public Finance Administration" included in the 2016-2019 National e-Government Strategy and Action Plan, the public finance administration and associated information systems will be updated, integrated with each other and new systems that become necessary will be developed.

2.2.2   The Electronic Public Procurement Platform (EKAP)

The Electronic Public Procurement Platform (EKAP), which enables public agencies and institutions to hold their tenders for public procurement in electronic format, is operated by the Public Procurement Agency. The EKAP was commissioned on 01.09.2010 and the application communiqué was published in the Official Gazette No. 27788, dated 17.12.2010 to go into force. The EPPP was developed so that in the process of tenders held by thousands of public agencies throughout Turkey, rather than handling the queries concerning developments in legislation, the objection period, prohibitions and similar questions over the Public Procurement Agency website, the tender transactions could be made more comprehensive and functional. Two different types of users, titled Administration and Bidder, are provided with services. Administration represents the agencies that are presenting a tender over the EPPP and the bidder represents the companies that wish to participate in the tenders. The EPPP has provided a more transparent environment in tenders, made the purchase principles of agencies more objective and achieved efficiency and productivity in the use of public resources. The additional EPPP application has also been presented for use on mobile devices with iOS, Android and Windows Phone operating systems.
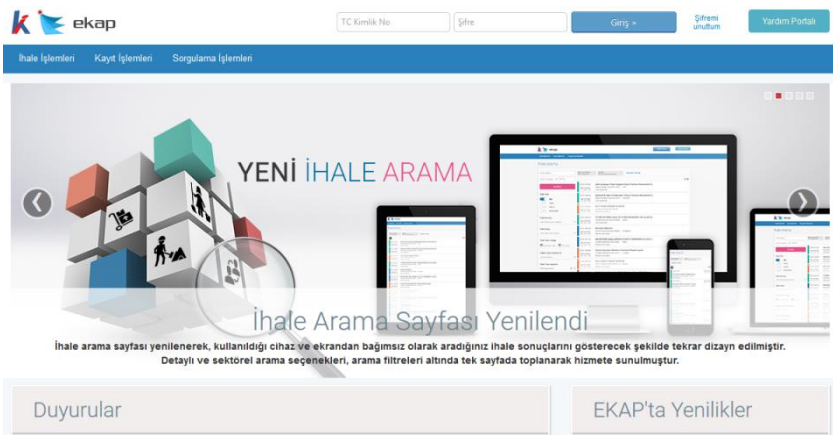
A total savings of over 3 billion Turkish Lira was achieved in 2011 and 2012 in public procurement costs with increasing competition and reduced contract prices. According to the public procurement statistical report the total of public procurements completed over the EPPP system in the first six months of 2015 is 79,433,805.000 TL. For 63,368 tenders that were held on EPPP, 92,460 contracts were signed. As of 30.06.2015 there were 8,138 records on the active ban list to which new records are added every day.

2.3   JOINT DATABASES

There are 4 main databases used throughout all agencies to conduct natural and legal person tasks and transactions in Turkey. These are the Central Registration Administration System (MERNİS) used for registering natural persons, the Central Commercial Registration System (MERSİS) used for registering business legal persons, the Land Registry and Cadaster Information System (TAKBİS) for property

ownership information and the National Address Database (UAVT) which contains address information.

Public agencies, private and all other establishments are able to access these databases within their assigned authorization and make the necessary updates. For example, when the individual goes to the nearest registration administration office or administration in which a membership will be established based on address with a rental contract or deed the change in address is completed with a wet signature immediately. An address declaration can also be made with an electronic signature or mobile signature over the e-Government gateway.

Other than the four main databases, there are databases used actively for basic services in traffic, farming land, health and education.

Ongoing Work:

The Spatial Address Record System (MAKS) was developed in 2013 to combine text records of address information with geographical coordinates. The process of integrating with the MAKS data model by the authorized officials continues. The generalization of MERSİS throughout the country and expansion of its scope continues.

2.4   THE ADAPTATION OF NEW TECHNOLOGIES TO COMMON INFRASTRUCTURES

2.4.1   The Use of Open Source Software

There is a variety of work being conducted on the open source software (OSS) ecosystem in Turkey (For example: ÖYAKDER, Pardus Community). There is also a question of various applications directed at different information system needs (server, word processing, document management, etc.) in public agencies and institutions. The use of OSS has been encouraged in the principles of interoperability guidelines updates with the Prime Ministry Circular No. 2009/4. However, there is no common application that has received definite acceptance. The most important project of the Government concerning AKK, started at the office of TÜBİTAK-UAKEA in 2003 and for which the first version was published in 2005, is the PARDUS operating system still currently being developed at TÜBİTAK-ULAKBİM, and has users in public agencies and at the server level and the work to generalize it is ongoing.

Ongoing work:

In line with the action of *"62. Supporting OSS use in Public Agencies"* included in the 2015-2018 Information Society Strategy and Action Plan and the "*E.2.2.3 Generalizing the Use of Open Source Software (OSS) for Priority Information Systems"* included in the 2016-2019 National e-Government Strategy and Action Plan the necessary work to ensure that the common software (databases, server operating systems, office applications, security software, etc.) needed by public agencies and institutions is fulfilled with open software, especially PARDUS, will be conducted, technical competence will be increases and generalized throughout public agencies.

In line with the *"E.2.2.2 - Developing National e-Government Software Development Libraries and Platforms"* included in the 2016-2019 National e-Government Strategy and Action Plan, software libraries and platforms that could be used jointly for the components needed in the software developed within the scope of e-Government projects will be developed.

2.4.2   The Internet of Big Data and Things

The increasing data volume and data relations in parallel to the popularization of e-Government applications have made the "big data" concept one of the priority research fields in Turkey. Agencies have started using different solutions as business intelligence in line with their needs. The most important research project of the government on big data and cloud technologies is the [Cloud Computing and Big Data Research Laboratory](#) (B3LAB) established under the coordination of TÜBİTAK-BİLGEM-BTE.

Ongoing work:

In line with the action of "*49. Realization of a Public Big Data Pilot Application*" included in the 2015-2018 Information Society Strategy and Action Plan and "*E1.3.2-Development and Popularization of Policies for Big Data and the Internet of Things in Public Agencies*" included in the 2016-2019 National e-Government Strategy and Action Plan, policies will be determined to identify the benefits that will be achieved through using the new generation technology trend of big data and the internet of things and to determine new public service that could be presented; and to develop policies to improve the presentation of existing public services and transform big data to economic value. Big data applications will be developed in the public field especially on the subjects of social security, health, tax and security for this purpose.

2.4.3   Cloud Computing and the Public Cloud

Cloud computing technologies are being widely utilized in both the private and public sector in Turkey. In particular the "Smart Cities – Cloud City Information System" has been developed by the Ministry of Environment and Urbanization for the use of small scale municipalities.

However, there is no public cloud per say with application, platform and infrastructure components for central government. The feasibility work in this direction has been handled in the Public Integrated Data Center activities within the scope of the BTYK Decree No. 2013/104.

> **Ongoing work:**
>
> In line with the action of *"64. Building a Government Cloud Computing Infrastructure"* included in the 2015-2018 Information Society Strategy and Action Plan and *"E2.1.1-Establishing and Implementing Public Integrated Data Centers"* included in the 2016-2019 National e-Government Strategy and Action Plan, a cloud computing infrastructure will be established for public agencies. In this scope a road map will be determined to realize principles, bases and standards with R&D work on the integration of public data centers with priority and, at the same time, solutions and technologies like the cloud computing infrastructure and thin client planned to operate on this infrastructure.

3   THE NATIONAL PORTAL

3.1   GENERAL INTRODUCTION

The e-Government Gateway (turkiye.gov.tr), which was established and is governed under the responsibility of the Ministry of Transport, Maritime and Communications per Cabinet Decree No. 2006/10316, is being developed and operated by TÜRKSAT A.Ş.. Since 2008 to the present access to public services integrated with the portal has been provided for citizens, the business world and foreigners with residency permits. Current public announcements and public agency information can also be accessed through the portal.

The Portal, which had over 31 million registered users as of January 2017, provides 1767 e-services by 296 agencies.

3.2   THE FEATURES OF THE NATIONAL PORTAL

3.2.1   Provision of Services

Central government and local government services and subscriber services provided by companies are presented of the e-Government Gateway. Currently, 196 municipalities and 9 local service agencies are integrated in the portal. Most of the services that are provided are integrated with the portal and can be viewed over the same interface. The services that are provided to citizens through the portal can be grouped as follows:

- Information services
- Integrated electronic services
- Document creation/verification services
- Payment transactions
- Short cuts to agencies and institutions

The portal also functions as an identity verification platform. A separate window opens only to e-services that have identity verification integration, after the joint identity verification is completed. E-services

that do not have integrated identity verification are also shown under public agencies. Identity verification is done on the agencies website for access to these services.

A thematic presentation was not chosen for presenting services. Services are listed based on agency. The system is also able to show the user services as frequently used, favorites and newly added services.
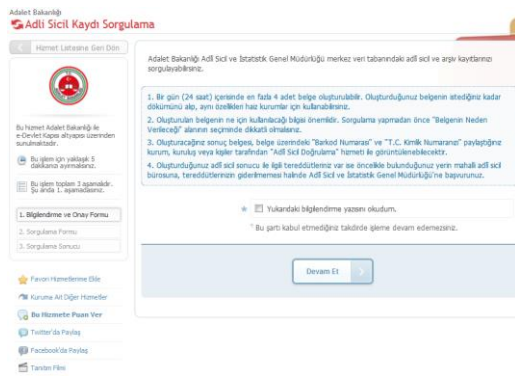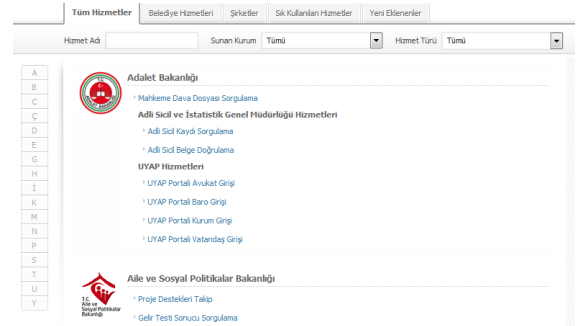
How long it will take for each service to be completed, how many steps are involved and what step you are on can be seen on the service access screen. Summary, add to favorites, grade the service and share on the social media features are presented as a standard for each service. There are introduction films and user guides for frequently used services.

One of the important features of the portal is that QR bar-coded documents special to agencies can be produced through the portal and the concerned party can verify the document on the document verification service. There are also mobile applications for document verification.
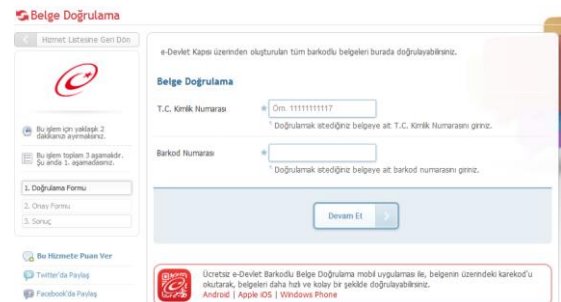
3.2.2   Identity Verification

The portal follows an alternative approach for identity verification. In the current situation 5 different identity verification methods are being used.
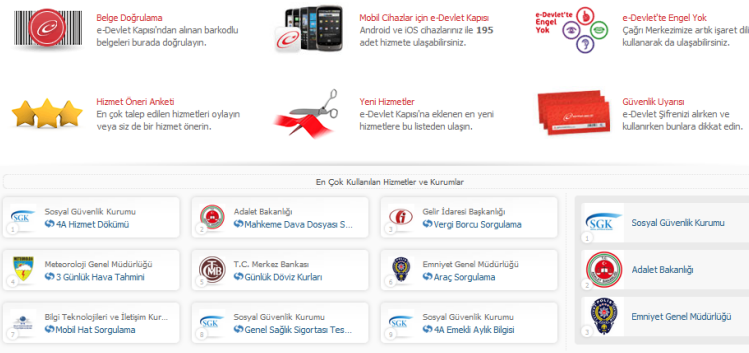
- Citizen identification number and password
- Electronic Signature
- Mobile Signature
- e-Identification Card
- Internet Banking verification

The most common preference for use is the citizen identification number and password application. The password must be obtained from branches of the PTT, which offers postal services and from embassies and consulates as wellThe verification by active mobile phone Internet Banking identity verification was integrated in 2015 to provide lost passwords. This was greeted with great interest. Currently, there are 13 banks which are integrated into this system.

3.2.3   Usability Features

The portal stands out with a plain design. The frequently used services and most frequented agencies are listed on the homepage for easy access. The current announcements and new services news are shared on the homepage.


The portal provides expanded search functionality. The user service name, key word, registration information can be entered to filter the alternatives. For example, by entering a plate number the plate search services are accessed directly.

There is English content about the portal and use of the portal. Basic information about Turkey is also included on this sight for foreigners. Foreign nationals with residency permits (who have a foreign national identification no.) are able to use the e-Government services. However, the portal menus are in Turkish.

3.2.4   Accessibility Features

The Portal supports all existing Internet browsers. The portal has an e-Government mobile application for mobile devices. The application that was published in 2015 with a new interface is both iOS and Android compatible. The mobile applications have been downloaded by over 1 million people.
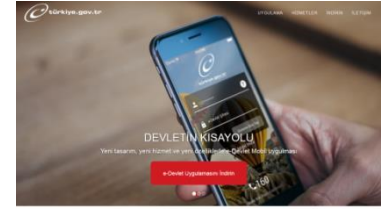
e-Devlet Mobil

The text only version of the page provides basic accessibility features like large font, keyboard shortcuts and a site map. The Portal has ISO 9241-151 and ISO/IEC 40500:2012 certification in terms of providing usability and accessibility. Detailed information concerning Portal accessibility is shared.

Video call center services are provided for hearing and speech impaired citizens over the Portal with the theme "There are no obstacles in e-Government".

Information security and privacy policies are shared in detail. Up to date information is provided to maintain information security. The Portal has an SSL certified connection infrastructure and is IPv6 compatible.

3.2.5   Participatory Features

In e- Government Gateway, services for submission of requests, ideas, complaints and similar requests in various matters to relevant agencies are listed. Using these services, it is possible to contribute decision-making, solution and policy-making process directly."There is a "Communication and Assistance Center" menu to access content about information concerning the Portal and all evaluations and information on other topics.

The Portal has social media integration. On the e-Government Gateway information on official social media accounts belonging to the e-Government Gateway can be accessed.

- By following the **Twitter**: **@ekapi** account you can be kept informed on developments concerning the e-Government Gateway and it is possible to send questions and reports of errors concerning the e-Government Gateway. All messages that mention user **@ekapi** and include the hashtag **#edevlet** are evaluated and responding all of them is aimed. Also Tweets that include "e-Government", "e-Government Gateway", "türkiye.gov.tr", etc. are examined.

- **Facebook**: Information about developments in e-Government Gateway can be accessed on the https://www.facebook.com/edevletkapi Facebook page and questions and error notifications concerning e-Government Gateway can be transmitted through this channel.

- **Youtube**: Videos concerning the use of the e-Government Gateway can be accessed on the https://www.youtube.com/channel/UChX28IHPQ2jyaBatdfRqGSQ address.

- Also it is possible to access research, technical articles and other announcements published by the e-Government staff and get to know the e-Government Gateway system and the staff that operates it better on the e-Government Gateway Blog.

- The Portal also has an RSS broadcast.
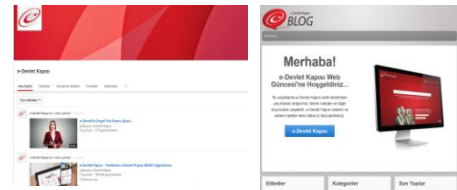
To provide easy access to users the Portal operates in integration with the National Assembly, Presidency and Prime Ministry communication channels to convey general demands, complaints and suggestions outside of the Portal use.

There is an e-Government Gateway Call Center available for handling problems that occur during the use of the e-Government Gateway and all opinions and suggestions concerning the e-Government Gateway. To reach the e-Government Gateway Call Center the form on the "Communication Form" page can be filled out or 160 can be dialed from all mobile and land lines or an e-mail can be sent to the **bilgi@turkiye.gov.tr** address. Video calls with Gateway Call Center employees who know sign language are available to prevent problems in accessing the Gateway Call Center.
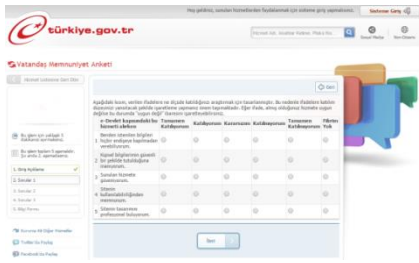
There is a satisfaction survey for e-services on the e-Government Gateway. This enables the integrated services to be evaluated. Also, service suggestion surveys are periodically implemented on the site. Also there is a service scoring option for each e-service that is provided in integration.

3.2.6   Customization

After the Portal is entered the services provided for customization are as follows:

- SMS services and e-mail are used as a channel for communication with the user. Announcements and proactive information is provided to users at their request through these channels.
- The user is able to change their out of country, IP restriction and internet banking settings for Portal access restriction.
- The user can see e-mails that come over the system in their "Inbox."
- If the user wishes they may use the "Information Sharing" feature to assign authority to specified individuals to view temporary specified information.
- The user is able to view use history and access information for security purposes.
- We can suggest from among the new services the e-Government Gateway services that the user may need based on their user habits at the request of the user.
- The user is able to create their own page under "My Page". The frequently used and favourite services can be added as modules to this page.
- The User is able to produce QRcoded documents over the Portal and have the concerned parties verify it.
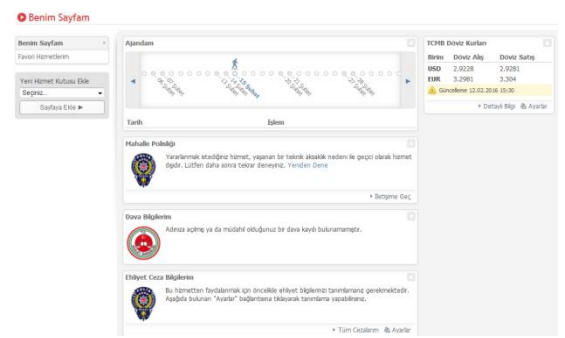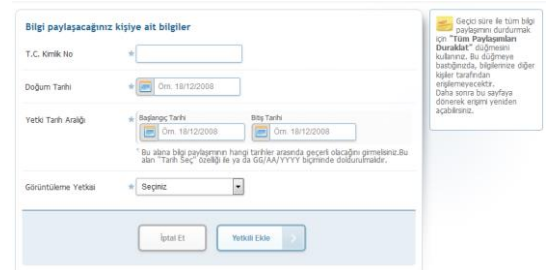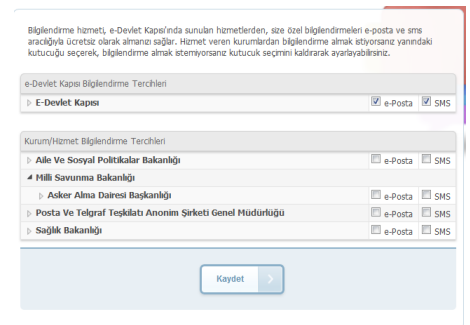
- They are able to view these documents under "My Saved Documents".
- The User is able to create a personal calendar and reminders in the "My Calendar" application.

Ongoing work:

Important improvements have been made in the Portal, which has been active since 2008, especially in terms of usability and accessibility. The customization and social media use features are among the important elements of the Portal. In Turkey, where the social media is widely used, the participation channels of the Portal are expected to be reinforced in the near future. The existing service provision set up of the Portal is based on institutional classification. With the increase of integrated services we aim to create service themes and the necessary setting to provide uninterrupted services.

In line with the action of *"31. To ensure effective use of the e-Government gateway"* included in the 2016 65th Government Action Plan, all services that are conducted by public agencies and institutions will be provided through the e-Government Gateway, thereby enabling natural and legal persons obtaining services from public agencies and institutions to request their services in electronic format without having to go the public agencies and institutions.

In line with the action of "*E3.4.3-Delivering e-Government Services over the e-Government Gateway with Priority*" included in the 2016-2019 National e-Government Strategy and Action Plan work will be undertaken to bring the services provided over the e-Government gateway to a feature and usability level that all walks of the community can use and to increase the number of e-Government service with widespread user audiences.

Also in line with the action of "*E3.4.2-Restructuring e-Government Services to Address All Vulnerable Groups*" national access standards will be restructured taking into account the international accessibility standards, the deficiencies in accessibility to e-Government services will be determined and the e-Government services will be restructured with consideration for all vulnerable groups.

4   GOVERNMENT INFORMATICS PERSONNEL MANAGEMENT

4.1   SUPRAINSTUTIONAL MANAGEMENT

The development and execution of the e-Government policies in Turkey is under the responsibility of MTMC and there is no institutionalized position widely accepted for a Government Informatics Chief Officer (GCIO). In Turkey the public administration governance form does not involve CIO and similar positions. That being said, there are responsibilities being executed in terms of a GCIO role by the MTMC General Directorate of Communication, the Ministry of Development Information Society Department and the Prime Ministry Directorate of Administration Development at present. The authorities of these offices are specified in the organization Law.

In the past a Transformation Leaders structure was developed comprised of an e-Transformation Executive Board and strategy development and information processing department administrators under this board with representation at Minister level. However after 2011 a coordination mechanism of a similar nature could not be operated. It is considered that developing an e-Government organization model in line with current developments and clarifying responsibilities is a priority need in Turkey. With the BTYK Decree No. 2013/102, the decision was made to develop a new organization model for conducting and coordination e-Government work. The tasks in this direction continue under the coordination of MTMC.

4.2   INSTITUTIONAL MANAGEMENT

The assistant undersecretary responsible for administrative modernization and information processing in the Ministries is considered to the equivalent position that can carry out the requirements of the CIO position. Coordination meetings are held periodically between assistant undersecretaries in Turkey under the coordination of Prime Ministry. Same level meetings are started to be held under the coordination of MTMC in 6 months periods. These meetings are considered to be "CIO Board" meetings. Similar meetings between head of departments are also started to be held in more frequent periods under the coordination of MTMC. This coordination structure is supported with organization structure by BTYK Decree No. 2013/102 and M&E structure of the 2016-2019 National e-Government Strategy and Action Plan.

Mainly the e-Government work in Turkey is being conducted in the information processing departments of central and local government agencies. Some of these departments that are generally at head of

departments' level, have recently started to be organized at directorate general level which involves departments. This shows the increasing significance of these activities in public administration.

With the regulation that went into force in Turkey in 2006 strategy development departments were established in all public agencies. These departments provide the necessary planning and execution to make sure public resources are used in the most productive and efficient manner in line with national plans and institutional needs.

There are also information systems planned and operated by main service departments in line with the long term requirements.

4.3   GOVERNMENT IT PERSONNEL

Another indication of the rising significance of e-Government work in public agencies is the increasing number of expert information personnel. With the contracted information personnel application in 2008 employment according to current market conditions is provided to information specialists who are difficult to obtain.

Through the cooperation of non-governmental organizations, universities and private companies periodic awareness activities are organized for public administrators. While this does not demand continuity, there are capacity development programs on various subjects being conducted by agencies.

In the private sector there are CIO positions and capacity development programs directed at these positions but there are no continuous and integrated programs towards gaining Government Chief Information Officer (GCIO) skills.

> **Ongoing work:**
>
> In line with the action of *"E1.1.1-Development of an e-Government Ecosystem"* included in the 2016-2019 National e-Government Strategy and Action Plan, the necessary tasks will be completed for conducting e-Government policies in cooperation with stakeholders and ensuring the necessary human resources skills. In the term ahead of us it is expected that roles and responsibilities between Ministries will be detailed and governance will be activated.

In line with the action of *"61. Regulating Employment of Public Informatics Personnel"* included in the 2015-2018 Information Society Strategy and Action Plan and the action of "*E1.2.1-Development of Policies for the Human Resources Assigned to e-Government Work*" included in the 2016-2019 National e-Government Strategy and Action Plan, the e-Government project preparation and management capacities of public agencies will be expanded, the skills of information processing units in agencies will be improved, the personal benefit rights of public information processing personnel will be made better and an information specialty staff will be created. Legislative work is being conducted towards the employment of informatics personnel under the status of expert clerical staff and the standardization of the field competences. When this work is completed, a continuous personnel structure can be created for e-Government projects.

5   ONLINE SERVICES

There are important online services that have been actively used in Turkey since the 2000s and that continue to be developed. Not all of the successful examples that have been realized by public agencies and institutions have been included in this section but some examples of online electronic tax, customs, health, education and justice services provided from a single point have been provided. Brief information about the other important work that is not included below has been provided under other ongoing work at the end of the section.

5.1   E-TAX SYSTEMS

With the Revenue Administration "Internet Tax Office" application debts can be queried and paid. Debt query and payment transactions, calculating transactions for motor vehicles, rent declaration transactions, taxpayer transactions, general query and calculation transactions and warning and e-notification transactions are able to be done with this application. Property tax and environmental cleaning taxes can be paid online on the websites of municipalities like Ankara, Izmir and Istanbul. Ex: Municipality of Altındağ, Municipality of Sarıyer.

e-Declaration

e-Declaration, operated by the Revenue Administration Directorate, is an application that involving the creation of declarations to be sent in electronic format and declarations to be submitted to tax offices that have transitioned to a fully automated system. This system serves users that obtain passwords from tax offices that are fully automated, taxpayers that do not need to have a professional member signature on their declaration because their asset size of net sales revenue is over a certain amount, independently operating accountants, certified public accountants and sworn-in certified public accountants (professional member) profiles.

e-Bill

The Electronic Bill Application was activated with the publication of the General Notification with the Order No. 397 of Tax Procedure Law by the Revenue Administration. The e-Bill Application is the general name for application that have been developed to ensure the safe and reliable circulation of e-Bills between the parties according to the specified standards. Users that benefit from the e-Bill Application can send e-Bills to users registered on the system, receive e-Bills from users registered on the system, download sent or received e-Bills and maintain them in electronic format and present them on request. Pursuant to Tax Procedure Law General Communiqué Order No. 416 and Tax Procedure Law No. 213 Article 232, taxpayers that must issue bills can utilize the e-Bill Application.

With the use of the e-Bill and e-Archive application 115 thousand full grown trees were saved and 750 million TL in savings was achieved.

e-Ledger

Electronic Ledger General Communiqué Order No. 1 published by the Ministry of Finance Revenue Administration and the Ministry of Customs and Trade Directorate General of Internal Trade, the electronic ledger (e-Ledger) has gone into effect. e-Ledger is the whole of legal and technical arrangements that enable ledgers, required to be maintained per Tax Procedure Law and the Turkish Commercial Code provisions, to be prepared as an electronic file according to the format and standards that are announced on this website and to be saved without printing out, guaranteeing the inalterability, integrity and accuracy of the source usable as an instrument of proof in the presence of authorities. Secure electronic signatures are used by natural persons and financial seals are used by legal persons to secure the inalterability, source and integrity of the ledger that is prepared electronically prepared per specified standards. Also by notifying the value of the signature or seal over the Electronic Ledger Application the ledger is usable as proof in the presence of all concerned parties.

e-Notification

Electronic Notification is the notification of documents requiring notification pursuant to Tax Procedure Law No. 213 and Tax Procedure Law General Communiqué Order No. 416 through the e-Notification system to the electronic addresses of taxpayers. This notification generates the same results as a physical notification. The e-Notification application will start as of January 1, 2016 but taxpayers who applied to use the e-Notification system before this were sent electronic notifications as of October 1, 2015. Taxpayers can apply for e-Notification in person or through a legal representative or a proxy with a power of attorney including special authorization to carry out e-Notification transactions.

> **Ongoing work:**
>
> In the beginning stages this program was considered for holding docket ledgers and large ledgers within the scope of an electronic ledger, but in the future the scope concerning other legal ledgers will be expanded. A role has been assigned to the Ministry of Finance concerning the "*55. converging of tax declarations and social security notifications*" that is among the actions published with the 2016 65th Government Action Plan. It is expected to be completed in 2016.

5.2 THE E-CUSTOMS SYSTEMS

The Central Commercial Registration System (MERSİS)

The objective of the project realized by the Ministry of Customs and Trade is to provide the information that public agencies need concerning legal persons from a single point, connect the information on entities in the system with tax numbers and bring the information on companies to conformity with international standards. Also we aim to share the information on the system with the private sector incompliance with personal information privacy and rules to be determined within the framework of the EU acquis. MERSİS is the maintaining of records for equity companies, cooperatives, individual businesses, organizations, foundations and their branches within the scope of commercial registry, centrally in electronic format on a joint database. Also this system involves all commercial registry directorates conducting transactions over this system and secure instant access to this information by relevant and authorized third parties. At the initial stage the records of equity companies, cooperatives,

individual businesses and foreign companies and their Turkey branches that are required to be registered with the commercial registry and the records of businesses established by organizations and foundations will be maintained in electronic format in a central commercial registry record system. This information will be shared with the relevant departments of the Ministry of Finance and other public agencies (Police, Ministry of Justice, Public Procurement Agency, TUSI, SSA).

By conducting services in electronic format over the MERSİS application and generalizing information services, significant savings will be achieved in stationary, communications, human resources and similar costs.

Single Window

The Single Window System is comprised of the e-document stage that enables all documents required during customs transactions to be obtained from a single point and the e-application stage that enables requests concerning other agencies to be made from a single point. This application aims to check all documents, which used to be done manually, in electronic format to reduce user errors, increase control efficiency and reduce transaction time. Electronic data can now be exchanged with the Ministry of Food, Agriculture and Livestock after being included in the Single Point System as of 2015. The Single Point System is planned to be activated in Customs office within the next year.

Ongoing work:

The Single Window System work started in line with the action of "*65. Single Window System application in Customs*" included in the 2016 65th Government Action Plan, aims to enable all permits, documents and approval transactions issued by relevant agencies and used in customer transactions to be conducted and controlled in electronic format.

In line with the action of "*E2.2.1 - Generalizing the Central Identity Verification System (MKDS) for Natural and Legal Persons*" included in the 2016-2019 National e-Government Strategy and Action Plan agencies and institutions will be provided with consultation services when deemed necessary to be included in the central identity verification system of e-Government services presented by public agencies and institutions. Integration of the MKDS with the MERSİS will be completed in this scope.

## 5.3   E-HEALTH SYSTEMS

Family Medicine Information System (AHBS)

AHBS is an application provided for the use of Family Medicine and Family Health Personnel in districts that have switched to the Family Medicine application. This system is based on recording health services in electronic format and transferring them to the Prime Ministry Central Organization Electronic Health Record (EHR) database and according R. of T. identification numbers, a file being opened for each patient and being stored here. AHBS is an application with 20000 probable users in a most widely used field for e-health that will enable every aspect of health services provided to nearly 70 million people to be quickly transferred to headquarters. Also this is the only work in which AHBS data is transmitted instantly and directly to the ministry.

Central Medical Appointment System (MHRS)

MHRS is an application in which citizens can call the Central Medical Appointment System at Alo 182 for 2nd and 3rd stage hospitals and dental health centers under the Ministry of Health to get appointments at the hospitals with doctors of their choice from live operators or the web. There is also a mobile application available.

e-Pulse
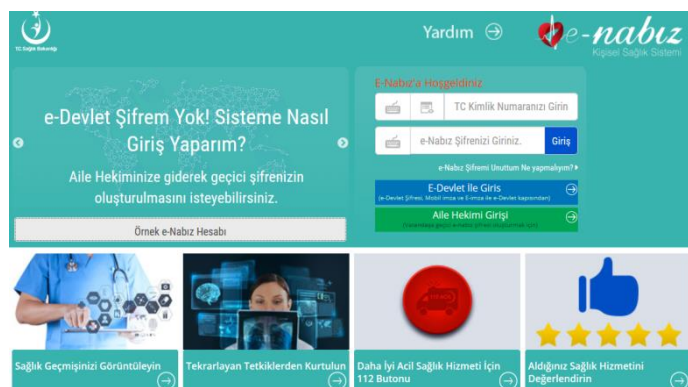
The e-Pulse Project, through which individuals can access their own electronic records, was developed by the Ministry of Health in 2015 to improve and protect individual and public health and create effective treatment plans. With the infrastructure that has been established citizens can access the system through the e-Government Gateway and access the diagnosis, test, medical image, prescription, allergy and similar information they have obtained from health services. With the E-Pulse Project, citizens can also assign authority to health professionals for access to their health records. There is also a mobile application available.

Medication Tracking System (İTS)

The İTS operated by the Ministry of Health Pharmaceuticals and Medical Devices of Turkey Administration (TİTCK) is a system used to track every movement of pharmaceuticals from production or import onwards in the supply chain. The barcodes attached to pharmaceuticals enable the movements of the products to be monitored in real time and stored in a database. This is useful in preventing drug trafficking and fraudulent pharmaceuticals, keeping a handle on corruption and being able to take measures towards effectively protecting public health.

Product Tracking System (ÜTS)

The Product Tracking System **(ÜTS)** project operated by the Ministry of Health Pharmaceuticals and Medical Devices of Turkey Administration (TİTCK) has an important place among the e-Government services. Tracking manufactured or imported medical devices and cosmetic products is targeted with PTS. By entering nearly 4 million Medical Devices, 400 thousand cosmetic product varieties and billions of singular products on record the following objectives are targeted:

- To establish a national and unique infrastructure according to performance requirements to monitor products
- To ensure patient security and contribute to protecting public health
- To provide an infrastructure for auditing services to be carried out in a healthy and efficient manner
- To enable fast measures against hazards that could be generated by the use of products

Ongoing work:

In line with the "*E3.2.2-Integration of Information Systems Associated with the Health Services Sector"* action included in the 2016-2019 National e-Government Strategy and Action Plan the requirements of information security, personal information privacy, cyber security and the Disaster Response Plan of Turkey will be taken into account while work is conducted to update systems associated with the health system, complete the integration between systems and develop needed new systems. In this scope the interoperability between first, second and third step health institutions under the Ministry of Health, university hospitals and private health institutions will be increased and integration between health services and social security services will be completed to improve the quality of health services.

With the completion of this work health systems will be integrated and the health records and expenditures of citizens will be accessible from a single system increasing the accuracy and consistency of health data and reducing the rate of losses / illegal activity. Also with the integration of data disability reports will become standard and it will become possible to get feedback from citizens about health institutions and their services in electronic format.

5.4   E-EDUCATION SYSTEMS

Education services are generally coordinated by the Ministry of National Education. The electronic services and applications being provided have been established on a central infrastructure. There are 3 main e-Government applications used by all public/private status institutions for education services: MEBBİS, e-School and e-Informal. Also there are interactive content services like Education Informatics Network (EBA) available.

MEBBİS

The Ministry of National Education Information Systems (MEBBİS) is an institutional automation and e-Government application used for the management of education institution resources by the formal and informal education institutions that are under the coordination of the Ministry. There are many different modules within its structure like personnel, movable and immovable resources, education opportunities, budget management, etc.

The modules that are generally needed in administrative services are found under this umbrella. There are one or more modules of almost every general directorate associated with education services here. User management, e-inquiry, auditor, performance management, e-investment, statistics, social facilities, e-request and teacher housing are some examples of these modules.

e-School
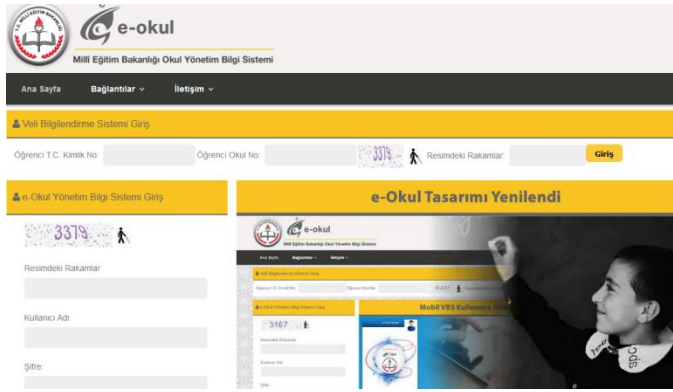
This is a system on which tasks and transactions concerning education, teaching and students in schools are conducted and information is stored. There are modules for the use of teachers, students and parents. Almost all of the nearly 55 thousand schools use e-School. The widely used Parent Information System (VBS) is a module developed under e-School. It presents a common use opportunity with SMS system and enables parents to reach information related to their children easily through e-Government Gateway intergration.

e-Informal

The e-Informal Automation System is an e-Government application, which is being used since 2008 for the coordination and administration of activities within the scope of lifelong learning. All centers and professional training institutions that provide informal education services use the same application. The infrastructure was completely renewed as of the fall of 2014.

The Education Informatics Network (EBA)

EBA, which was developed by the Directorate General of Innovation and Education Technologies for the purpose of using effective materials that utilize information technologies in the education-teaching process, is a social platform on which grade-suitable, reliable and accurate content that has been subjected to careful inspection is

available. It has been designed for all education stakeholders, especially teachers and students.

Ongoing work:

In line with the *"E3.2.3-Integration of Information Systems Associated with the Education Services Sector"* action included in the 2016-2019 National e-Government Strategy and Action Plan the requirements of information security, personal information privacy and cyber security will be taken into account while work is conducted to update systems associated with the education system, complete the integration between systems and develop needed new systems. In this

scope the existing system integrations will be completed to enable education data integration management inbetween.

5.5   THE E-JUSTICE SYSTEMS

UYAP

The [National Judiciary Informatics System (UYAP)](#) is an e-Government application and institutional automation infrastructure used by the Ministry of Justice for judicial and administrative transactions. Citizen change of status information like divorce, custody, etc. court decisions are kept on this system.

UYAP provides services to all stakeholders from the sub-modules listed below:

- Citizen Portal, Agency Portal, Attorney Portal, Notified Body Portal, e-Sale Portal

The UYAP Information System started as a two stage project in the year 2000 and in 2001 the UYAP I project that provides automation of Ministry of Justice Central Departments was completed and the UYAP II project covering the automation of judicial and administrative departments, forensics and detention homes was completed and commissioned in 2005. UYAP software has also been adapted to the Court of Cassation to include it in the UYAP Information System.

With the [UYAP SMS Information System](#), warnings, data and announcements concerning transactions on the system, including case files and execution of debts, can be sent by short message (SMS) to users.

SEGBİS

The [SEGBİS (Sound and Image Information System)](#) infrastructure, which enables audio and visual recording in courts started being used in courts as of 2013. The SEGBİS enables individuals that are outside of the judicial locality or unable to be present at court to be listened to via video conference and to have their testimony recorded.
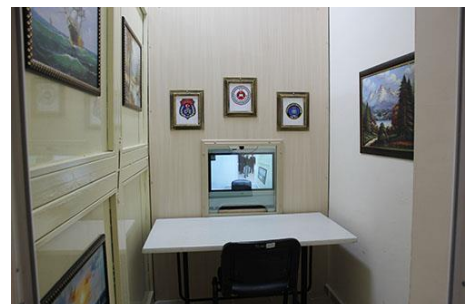
Ongoing work:

In line with the action of "*E3.3.6-User Oriented Integration of Services Associated with Action of Debts On the Ground of Small Claims Transactions*" included in the 2016-2019 National e-Government Strategy and Action Plan, small claimed conflicts and actions of debts will be handled and access to information and application, case filing, tracking, obtaining results and objection transactions concerning these issues will be integrated to provide services according to the life event model in order to assist in resolving conflicts in this scope.

5.6   ONE STOP SERVICE APPLICATION

The One Stop Service approach in Turkey is the e-Government Gateway application. Operating since 2008, the e-Government Gateway provides access to many central and local government services from a single point. The number of services that are provided in integration and the usability of e-services are constantly improved. (*For the detailed information see the Section 3 on e-Government Gateway*)

For location based service provision, the "Service in a Single Step" application has been started at provincial and district governorships with the [Prime Ministry Circular No. 2006/35](#). The administrative transactions that need to be carried out by different agencies for social assistance services are able to be provided from a single location at provincial and district governorships with this application.

Ongoing work:

In line with the action of "*31. Providing effective use of the e-Government gateway*" included in the 2016 65th Government Action Plan all of the services carried out by public agencies and institutions will be provided through the e-Government gateway, thus natural and legal persons obtaining services from public agencies and institutions will be able to request their services in electronic format without having to go the public agencies and institutions.

In line with the action of "*58. Provision of User-Centric e-Government Services*" included in the 2015-2018 The Information Society Strategy and Action Plan the existing single step service offices will be reviewed, especially in terms of the needs of vulnerable groups, in the framework of the User-Centric e-Government Service Provision Guide and the necessary improvements will be made.

In line with the action of "*E3.4.3-Provision of e-Government Services over the e-Government Gateway with Priority*" included in the 2016-2019 National e-Government Strategy and Action Plan work

will be done to bring the services provided through the e-Government gateway to a level of quality and usability that can be utilized by all sections of the community. Besides, in line with action of "*E3.4.1-Designing New Service Provision Models to Increase Use*" different alternatives for increasing the use of e-Government will be evaluated and work will be done to determine e-Government service provision models that are unique to Turkey.

Other Ongoing Work:

In line with the action of "*E3.2.1-Integration of Systems Associated with Labor and Social Security Services*" included in the 2016-2019 National e-Government Strategy and Action Plan systems related to professional life will be updated, integrated with each other and needed new systems will be developed.

In line with the "*E3.2.5-Integration of Information Systems Associated with Social Services*" action included in the 2016-2019 National e-Government Strategy and Action Plan, the systems that hold protective, preventive, developmental, guidance and rehabilitating social services information for the vulnerable groups in Turkey, especially children, women, elderly, handicapped, families, veterans and veteran relatives, will be integrated.

In line with the action of "*E3.2.6-Integration of Information Systems Associated with the Transportation and Communication Sector*" included in the 2016-2019 National e-Government Strategy and Action Plan common standards will be defined for systems associated with the transportation and communication sectors to be able to exchange data and operate integrally, the necessary system improvements will be made and needed integrations will be implemented.

In line with the action of "*E3.2.7-Integration of Information Systems Associated with the Food, Agriculture and Livestock Sector*" included in the 2016-2019 National e-Government Strategy and Action Plan the systems associated with the food, agriculture and livestock sectors will be integrated and needed new systems will be developed.

In line with the action of "*E3.3.1-User Oriented Integration of Services Associated with Change in Citizen Status*" included in the 2016-2019 National e-Government Strategy and Action Plan the procedures associated with citizen status changes generated by a birth, marriage, divorce and/or

death of a spouse will be started from a single point and integrated with the systems of other agencies with a life event perspective to be conducted more easily.

In line with the action of "*E3.3.2-User Oriented Integration of Services Associated with Business Operations"* included in the 2016-2019 National e-Government Strategy and Action Plan, the establishment of a business (like registration and record processes) including procedures carried out on a regular basis with public agencies and institutions (like administrative and tax requirements, VAT repayments, etc.), change in status and closures will be defined as "business life events" and system integrations will be done.

In line with the action of "*E3.3.3-User Oriented Integration of Services Associated with Professional Life Activities"* action included in the 2016-2019 National e-Government Strategy and Action Plan, the processes conducted by different agencies for citizens to conduct their unemployment /employment and retirement procedures easily will be integrated according to the life event model.

In line with the action of "*E3.3.4-User Oriented Integration of Services Associated with Inheritance Transactions*" included in the 2016-2019 National e-Government Strategy and Action Plan processes conducted in association with inheritances will be designed according to the life event model so that transactions will require citizens to start and track their own transactions in person at least level, the processes will trigger each other and the service integrations will be implemented.

In line with the action of "*E3.3.5-User Oriented Integration of Services Associated with Vehicle Purchase and Use Transactions*" included in the 2016-2019 National e-Government Strategy and Action Plan in order for transactions concerning the purchase and use of a vehicle to be started and conducted quickly and easily from a single point the presentation of different systems / processes will be integrated according to the life event model.

6   THE INSTITUTIONALIZING AND GENERALIZING OF E-GOVERNMENT WORK

6.1   E-GOVERNMENT BUDGET AND PLANNING

There is no special budget in Turkey that has been allocated for e-Government towards joint use of agencies or for joint projects. Investment recommendations are prepared by agencies in line with relevant policies and agency duties during the public budget preparation process. These investment proposals are evaluated by the Ministry of Development in line with national policies and targets and are then included in the budget. In order for the ICT investments of public agencies to be determined according to national priorities and standards the Ministry of Development has prepared the "Public ICT Projects Preparation Guide". The guide, for which the first version was published in 2004, is updated in new versions every year to strive for more comprehensive subjects concerning the preparation process of ICT projects for public agencies and institutions investing in.

Significant resources have been allocated to information and communication technologies and e-Government projects as a public policy especially since 2000s in Turkey. As of 2002 public ICT investments are reviewed on a regular basis. Between 2002 and 2014, about 23 billion TL was invested in 13 years by the public sector in ICT. In 2002 ICT investments were at the level of 700 million TL and reached 3.7 billion TL by 2014. The portion of public ICT investments in all public investments was 2.9% in 2002 but rose to 7.8% in 2014. This is an indication of the importance placed on information systems by the public sector.

The routine expenditures for public ICT operations are notified to the Ministry of Finance. However, there is not detailed report set up for public ICT expenditure items within the public budget system at present.

> **Ongoing work:**
>
> In line with the action of *"E1.1.2-Planning, Evaluating and Monitoring e-Government Projects"* included in the 2016-2019 National e-Government Strategy and Action Plan the process for planning, evaluating and monitoring e-Government investment projects in accordance with the National e-Government Strategy will be redesigned.

6.2   ASSESSMENT OF E-GOVERNMENT ACTIVITIES AND STATISTICS

6.2.1   Monitoring and Evaluations Mechanism in e-Government Activities

A monitoring, assessment and change model has been developed to track and assess the progress of reaching goals set forth in the 2016-2019 National e-Government Strategy and Action Plan. In this scope,

- The progress of actions will be monitored with the responsible and concerned agencies / institutions using the Strategy and Action Plan Monitoring System (SEPSIS) and during the monitoring periods performance measuring will be done and the results will be reported.
- Changing conditions will be adapted in line with the "Change Management Model" and the change will be reflected in a controlled manner on the Action Plan.

Ongoing work:

In line with the action of "*E1.1.5-Implementation, Monitoring and Evaluation of the 2016-2019 National e-Government Strategy and Action Plan"* included in the 2016-2019 National e-Government Strategy and Action Plan guidance will be provided for planning and management activities that are done by responsible and concerned public agencies / institutions to implement the assigned actions, the actions will be carried out in coordination with other actions, change management activities will be carried out to make sure the Action Plan adapts to changeable conditions, the progress of actions will be monitored and reported.

Also in line with the action of *"E.1.1.6-Development of a Mechanism to Measure the National e-Government Maturity Level"* international examples will be studied to develop a model to determine the-Government maturity level of e-Government services on an agency and national scale. The completed models will be used to determine the maturity level of e-Government on a national scale as well as the maturity level of e-Government in selected e-Government services and public agencies.

6.2.2   Audit Mechanism in e-Government Activities

In Turkey the task of auditing public agencies and supervising their actions in accordance with performance management requirements is conducted by the <u>Court of Accounts (Sayıştay)</u> on behalf of The Grand National Assembly of Turkey (TBMM). However there is no audit mechanism for the efficiency of e-Government policies in Turkey. Yet sample audit work was conducted by the Court of

Accounts with the "Information System Audit Guide" in 2013 to determine the control vulnerabilities of information systems and amend these deficiencies to provide support for the financial audit process.

In line with Public Finance Management and Control Law No. 5018, assistance is provided for internal audit units to be able to conduct effective information technologies audits with "Public IT Technologies Audit Guide" issued by Ministry of Finance Internal Audit Coordination Board in 2014. The guide provides an integrated perspective and management of everything that needs to be done from planning stage of an information technologies and audit to reporting the results.

There are assessments and suggestion reports that are generated at certain periods by Non-Governmental Organizations. However, there is no institutionalization and job description that is continuous in this aspect.

Ongoing work:

In line with the action of "*E1.2.2-Ensuring Efficiency of Audit for e-Government Projects in Public Sector*" included in the 2016-2019 National e-Government Strategy and Action Plan the existing monitoring and assessment capacity at national and institutional scale will be reinforced in accordance with the e-Government policy.

6.2.3   e-Government Statistics

The continuous statistical assessment studies for e-Government tasks in Turkey are conducted by the National agency called the Turkish Institute of Statistics (TURKSTAT). In the current situation the TURKSTAT measures the trends of citizens and legal persons using information technologies in line with becoming an information society. The TURKSTAT studies on Information Technologies Use have been provided below under the study headings:

- Study on the Use of Information Technologies in Enterprises
- Study on the Use of Information Technologies in Households

The study on information technologies use, which was first conducted in 2005, has been done every year since 2007. There are basic questions regarding access and use in these surveys.

Another heading of a study conducted by TURKSTAT is "satisfaction in public services provided in electronic format" within the scope of the Satisfaction in Life Survey.

6.3   PROMOTION AND AWARENESS

There is an introduction film prepared to raise awareness about the e-Government work and development of a new e-Government policy. General introduction films concerning the use of the e-Government gateway are prepared at certain periods.

The public announcements that are broadcasted on television and radio are a preferred approach for promoting and creating awareness for large scale public services. There are similar promotions being broadcasted for e-Government services addressing wide audiences (For example: public announcements for the Ministry of National Defense military service procedures). To the present many varieties of introductory videos prepared especially for large scale e-Government services (For example: Ministry of Justice UYAP introductory videos, the Ministry of Health e-Pulse introductory video, the Ministry of Foreign Affairs e-Visa video) have been broadcasted over the agency websites and various social media channels. Also e-Government applications are able to be promoted in different TV series to address wider audiences (Ministry of Justice UYAP TV series promotion).

Brochures and posters are also prepared in addition to videos for promotional purposes. (For example Ministry of Justice UYAP SMS posters, the Directorate General of Immigration Affairs e-Residence poster). However, there are no similar promotions and a standard approach for all of the e-Government services addressing large scale audiences. The work that is being carried out is determined in line with institutional needs.

Special promotions are undertaken by central and local governments at fairs to introduce e-Government applications. For example, ceBİT Bilişim Eurasia, one of Turkey's largest information technology fairs, stands out in terms of e-Government technologies.

There are also promotion and awareness activities conducted periodically by NGOs. (For example: the Turkish Information Association organized National Informatics Workshops and the Academic Informatics Conferences organized in cooperation with the Internet Technologies Association)

> **Ongoing work:**
>
> In line with the actions of "*E4.1.1- Increasing Awareness of e-Government Services by Strengthening Information Channels*" and "*E4.1.2-Making e-Government Applications Primarily Preferred*" included

in the 2016-2019 National e-Government Strategy and Action Plan work will be undertaken to raise the awareness of all users concerning e-Government and provide information and develop incentive mechanisms so that users prefer to use e-Government applications.

In line with the action of "*E1.3.1-Development and Support of an e-Government Research Program"* included in the 2016-2019 National e-Government Strategy and Action Plan a research, development and innovation work program will be developed in the field of e-Government. In this scope academic work will be encouraged, scientific activities like publications, projects, domestic and foreign research, scientific contacts and conferences will be supported and the higher education curriculum associated with e-Government work will be updated.

7 E-PARTICIPATION

The activities being conducted in the field of e-participation in Turkey can be listed as providing up to date information, accepting complaints and suggestions, receiving feedback and including in decision-making processes via web and mobile technologies.

7.1 PROVIDING UP TO DATE INFORMATION

7.1.1 Presenting Current Information about Political Representatives

The Grand National Assembly of Turkey (TBMM) website provides the contact information (address, telephone, fax and e-mail information) of deputies. Also all of the legal work on the agenda of the Assembly can be accessed here.

The Republic of Turkey Presidential website provides information about the Presidency, a current activity plan and texts of speeches. The location of the President shown on a map can also be seen on this website.

The Prime Ministry website broadcasts current information and announcements about activities concerning the Prime Minister and the Council of Ministers.

7.1.2 Providing Up to Date Information About Public Agencies

All of the elements of public administration including the organizational structure of agencies, provided services, documents used in services and the information in documents are determined along with their legal basis and updated on public organizations' website. In accordance with the "Regulation on Activity Reports to be Prepared by Public Administrations" published in Official Gazette dated 17.03.2006, activity reports are being prepared for agencies within the scope of the general budget, agencies with

special budgets, social service agencies and local agencies, the reports are given to the relevant agencies and disclosed to the public.

To obtain general information related to all public agencies KAYSIS, which is a Prime Ministry application, enables to diagnose elements existing in public management especially like organizational structure, services, documents used in services, information about such documents with legal references and to define them in electronic format.

7.2   RECEIVING FEEDBACK

7.2.1   Satisfaction Surveys

There are three different satisfaction survey applications concerning public services:

- The Public Satisfaction Survey (KMA) is conducted within the scope of KAYSİS. The KMA is a smart survey system used to measure the satisfaction level of citizens in public services and to prepare reports from these surveys to help develop public administration strategies. The survey is planned to be used towards improving the issues that the citizens are not pleased with. However, the application is not being actively used yet.

- There is a satisfaction survey provided for e-services used over the e-Government Gateway as a final step of process.

- There are also service based satisfaction surveys. (For example: The Ministry of Health e-Pulse evaluation survey enables the quality of all of the services provided in the health facility to be evaluated.)

7.2.2   Accepting Complaints and Suggestions

There are three main applications at the top level to ensure participation in Turkey;

- By using the "Write to the President" application on the Presidential Communication Headquarters (CİMER) operated by the Presidency, views, suggestions and complaints can be transmitted to the President.

- The Prime Ministry Communication Headquarters (BİMER) Application service operated by the Prime Ministry can be used to request information about public agencies and to submit applications of a suggestion, warning or complaint nature about public agencies. Also the Alo 150 call center is available for problems and opinions about public agencies.

- Requests can be written and sent in electronic format to the Grand National Assembly of Turkey through the e-Request Service operated by the TBMM.

There are also different applications at an agency level. The method that is popularly used is call centers and e-mail addresses that are special to the agency or service. There are especially call centers set up in which physical and online demands-complaints can be monitored for large city municipalities (For example: Ankara Metropolitan Municipality Mavi Masa, İstanbul Metropolitan Municipality Beyaz Masa)

7.2.3   Social Media Applications

Social media applications are widely used in Turkey. While they are generally used for sharing current information, there are also survey applications for complaints, demands and decision-making. When the current state of the government in terms of the social media is considered,

- The social media is used actively by politicians in Turkey. The President and all of the Ministers including the Prime Minister have social media accounts.
- The e-Government Gateway has social media integration. (*For more detailed information see the Section 3.2.5 National Portal participant features*)
- Most of the public agencies, particulary the Ministries, use the social media for current announcements. (For example: Ministry of Internal Affairs twitter account, the Ministry of Labor and Social Security facebook account)
- The social media is also widely used by local governments. (For example: Ankara Metropolitan Municipality twitter and instagram accounts)

   Ongoing Work:

   In line with the actions of "*E3.1.1-Updating and Generalizing Government Agencies' Websites and Social Media Pages in Accordance with the Specified Guidelines*" and the "*E3.1.2-Restructuring Public Information and Introduction Sites*" a included in the 2016-2019 National e-Government Strategy and Action Plan Public websites and institutional/official social media pages will be designed, updated and managed in an efficient and user-oriented manner according to the criteria and assigned guidelines that are set forth.

7.3   PARTICIPATION IN DECISION-MAKING PROCESSES

7.3.1   National Assembly Case

There are applications implemented at certain times on the TBMM website for participating in decision-making processes. The website opened for the new constitution work enables all decision-making processes to be carried out in line with transparency and participation principles. Also opinions and suggestions concerning TBMM projects and activities are collected under the "I Have A Suggestion" heading on the TBMM website.

7.3.2   Central Government Case

With the "In Suspension" application provided for service by the Council of Higher Education (YÖK) it was made possible to gather the views and suggestions of the authorized higher education boards and the academic society prior to making decisions. With this activity the the decision-making process is completed after the views and suggestions of the relevant stakeholders are obtained.
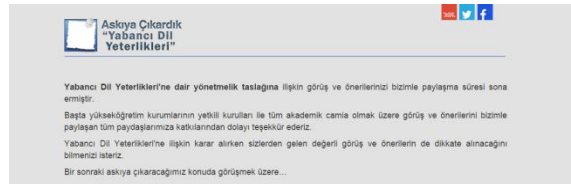
Different platforms were developed to enable the participation of all stakeholders concerning new laws that are planned to be issued by YÖK, workshops were organized and surveys were conducted. The information on all these platforms was published on www.yeniyasa.yok.gov.tr page. Opinions were received, and a new law proposal was developed.

7.3.3   Local Government Case

When local governments are considered in terms of e-Participation, many municipalities implement e-Participation. For example the "Select Your Ferry, Istanbul Citizens!" campaign in which the color and model of ferryboats to be purchased for a municipality can be selected.

There is an infrastructure on the e-Government Gateway that enables the participation of citizens in the decisions that are made at municipality assemblies. It is possible for citizens to provide their views concerning the subject headings that are presented. This service is provided through the cooperation of some municipalities (For example Istanbul / Municipality of Bağcılar, Istanbul / Municipality of Pendik) and the e-Government Gateway infrastructure.

7.3.4   Policy Preparation Study Case

During the preparation stage of the 2016-2019 National e-Government Strategy and Action Plan important activities were implemented towards obtaining the views of stakeholders within the e-Government ecosystem. Besides face-to-face surveys, focused group meetings and workshops across Turkey, online surveys were performed to the units of central and local government, private sector, universities and citizens. The "Draft 2016-2019 National e-Government Strategy and Action Plan" was presented for the views and suggestions of stakeholders on edevlet.gov.tr. The views that were obtained were reflected on the draft Strategy and Action Plan.

Ongoing Work:

In line with the action of *"34. The Prime Ministry BİMER will be restructured"* in the 65th Government 2016 Action Plan the Prime Ministry BİMER will be restructured to be an element of the participant management mechanism.

In line with the action of *"68. Development of an ICT Supported Participation Program for Creating Public Policies"* included in the 2015-2018 Information Society Strategy and Action Plan, in order to increase user orientation and effectiveness in public service provision a Program will be created to develop participation in making public policies including political decisions, legislative regulations and service provision processes; and ICT supported participant applications will be developed in public administration.

In line with the action of *"E4.1.3 Increasing User Participation in the Improvement of Public Services"* included in the 2016-2019 National e-Government Strategy and Action Plan Participation mechanisms will be developed to obtain feedback from citizens during the development and improvement of e-Government services. In this scope a feedback mechanism will be developed measuring satisfaction and expectations of users concerning e-Government services and applications and evaluating their perception periodically. Also in line with the action of *"E4.3.1-Developing a Legislative Participation Portal"* a public legislative participation portal will be developed to enable to monitor legislative work being conducted by public agencies and institutions and to obtain and evaluate the views of legal and natural persons concerning the legislative work.

8   OPEN GOVERNMENT / OPEN DATA

8.1   THE OPEN GOVERNMENT POLICY

The subject has been dealt with in the 2015-2018 The Information Society Strategy and Action Plan and the 2016-2019 National e-Government Strategy and Action Plan.

Becoming a member of the Open Government Partnership in 2011 is seen as an important step for Turkey. Within the scope of the Open Government Partnership an action plan was prepared in 2012 but was not able to be implemented and in August of 2013 a Prime Ministry Circular No. 2013/9 on the subject of an "Open Government Partnership Initiative" was published towards the implementation of the Open Government Partnership in Turkey. A second action plan in the scope of Open Government Partnership has been started but not completed yet. The work in this field is being conducted by the Prime Ministry Inspection Board. This Board is also tasked with transparency, accountability and combating corruption.

Promotion and information work and awareness raising meetings, etc. have been organized about open data by a variety of agencies / institutions in Turkey. For instance Developing Trends in Public Management Open Government and Open Data panel was held in cooperation of Prime Ministry and TUBITAK-BILGEM-YTE in March 20, 2013. However, these activities are not organized regularly.

Ongoing work:

In line with the action of *"67. Sharing of Public Data"* included in the 2015-2018 Information Society Strategy and Action Plan policies will be developed concerning the sharing and reuse of public information. Based on this, legal and administrative regulations will be developed concerning the use of public information by third parties of public data for value added products and services, also the necessary technical infrastructure will be created. The objective is to create added value in the economy with the use and share of public data.

8.2　THE OPEN GOVERNMENT PORTAL

There is no "data.gov" portal in Turkey that resembles international examples. However, within the scope of the Official Statistics Program (RİP), there is work for preparing and broadcasting national statistics and data sets according to certain standards on www.resmistatistik.gov.tr. Through this portal open access is provided to all statistics that are provided in an official capacity.
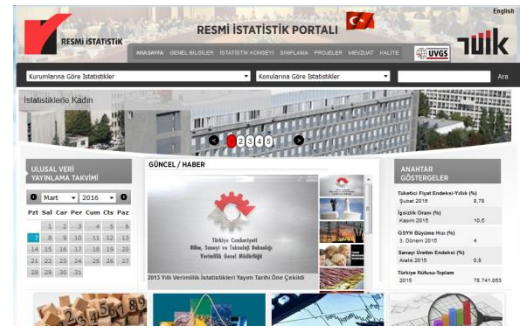
> **Ongoing work:**
>
> In line with the action of *"E4.2.1.Developing an Open Data Sharing Portal"* included in the 2016-2019 National e-Government Strategy and Action Plan observing open data sharing principles and personal information security / privacy, the data that is produced in public agencies, local governments, the private sector and non-governmental organizations will be opened to the use of all benefit providers from a common data source as open data. In this scope, rather than each agency sharing the data that is in their own possession, certain criteria and formats will be created so that the data is made compliant with these criteria and presented over a centralized platform.

8.3　OPEN DATA APPLICATIONS

While open data applications are limited in Turkey still there are various examples.

The data that is produced by the Directorate General of Meteorology like weather predications and climatization models are archived by the agency. Since the data that is sent to Global Telecommunications by the agency is comprehensible, it is considered open data. Also this data is transmitted in GPS code and the systems convert the data to a comprehensible format.

Municipality of Gaziantep Şahinbey has developed an Open Data Portal and started test broadcast on 18 data cluster groupings.

Ongoing work:

In line with the action of *"43. Supporting Smart Applications"* included in the 2015-2018 Information Society Strategy and Action Plan call based support will be provided for development of smart applications using public data that is produced by central and local governments.

In line with the action of *"E4.2.2.Transforming Public Data to Open Data and Sharing Data"* included in the 2016-2019 National e-Government Strategy and Action Plan the data that is being shared with the public by agencies will be shared in a format that is readable / workable by machines. It will be possible to analyze the data in question thus enabling statistics to be used in different studies.

In line with the action of *"E4.2.3-Developing a Public Investment and Realization Monitoring Portal"*, the investment plans and programs made by public agencies and institutions and the realization and investment status of work included in investment plans and programs will be presented for the use of stakeholders through the portal (citizens, private sector, nongovernmental organizations, etc.). At the same time investment and realization information will be shared as open data to enable stakeholders to create economic added value by analyzing and researching.

In line with the action of *"E4.2.4-Developing a Public Expenditure Monitoring Portal"*, the budget expenditures by public agencies and institutions will be presented, in detail to be determined, for the use of stakeholders (citizens, private sector, nongovernmental organizations, etc.) in a portal. At the same time public expenditure information will be shared as open data to enable stakeholders to create economic added value by analyzing and researching.

9   CYBER SECURITY

9.1   THE CYBER SECURITY POLICY

The National Cyber Security Strategy and 2013-2014 Action Plan prepared in line with the Council of Ministers Decision No. 2012/3842 is Turkey's first cyber security strategy document. The preparation work was conducted for MTMC under the coordination of TÜBİTAK-BİLGEM-SGE. There are totally 29 action articles under the 7 main headings in the Action Plan. The 2013-2014 action plan includes actions related to conducting the necessary legislative work, organizing cyber security drills and organizing activities to increase education and awareness concerning cyber security. A second strategy document was prepared for the 2016-2019 period and entered into force in 2016.

2016-2019 National Cyber Security Strategy and Action Plan covers all components of national cyber space including small and medium scale industries and all the natural and legal persons in addition to public information systems and other information systems belonging to critical infrastructure operated by public or private sector across Turkey. Strategy preparation has been performed with a big participation. After holding meetings with the parties in charge of the previous action plan, Common Mind Platform was held with participation of public agencies, critical infrastructure operators, informatics sector, universities and 126 experts from 73 agencies and institutions on behalf of nongovernmental organizations.

Strategic actions planned to be realized in 2016-2019 period are classified under the following headings:

- Strengthening Cyber Defence and Protection of Critical Infrastructure
- Combatting Cyber Crimes
- Developing Awareness and Human Resource
- Developing Cyber Security Ecosystem
- Integration of Cyber Security to National Security

Ongoing work:

The main policies that have been determined within the framework of the action of *"5. Information Security and User Trust"* in the 2015-2018 Information Society Strategy and Action Plan have started to be implemented. No direct target has been defined in the 2016-2019 National e-Government Strategy and Action Plan in terms of the cyber security field. The actions in the existing policy documents have been taken into account to achieve content integration.

In line with the action of *"36. A Strategy and Action Plan to Combat Cyber Crimes will be Prepared"* action in the 65th Government 2016 Action Plan and the *"39. A Strategy and Action Plan to Combat Cyber Crimes will be Developed"* action in the 2015-2018 Information Society Strategy and Action Plan a National Cyber Crimes Strategy will be prepared and put into force with the objective of reinforcing coordination between agencies for effectively combating new types of crimes that emerge in the field of information.

9.2   CYBER SECURITY LEGISLATION

In the framework of the Council of Ministers Decree No. 2012/3842 on "The Execution, Management and Coordination of National Cyber Security Work" the Ministry of Transportation, Maritime and Communication has been given authority to determine policies and prepare action plans concerning Cyber Security.

Cyber Security Institutions

Also in line with the addition of Annex Article 1 (Annex:6/2/2014-6518/106) to Electronic Communication Law No. 5809 in 2014, a Cyber Security Council, comprised of senior level administrators from public agencies, has been established under the chairmanship of the Minister of Transportation, Maritime and Communication.

The measures that need to be taken in the field of cyber security, duties and authorizations have been assigned by law as one of the duties and authorities of MTMC:

"Article 5(1) h) (Annex: 6/2/2014-6518/102) To determine policies, strategies and aims regarding provision of national cyber security, determining procedures and principles on provision of cyber security related to public agencies and institutions and all the natural and legal persons, preparing action plans, conducting secretarial works of Cyber Security Council, coordinating related activities, determining critical infrastructure and relevant agencies and locations, establishing necessary combatting centers, enable it to be established and inspecting it, studying, enabling to study and encouraging to study on production and development of all kinds of cyber response devices and national solutions, conducting education and awareness activities on cyber security, preparing procedures and principles which natural and legal persons operating in cyber security should comply with."

Pursuant to Article 4 of the action plan in question, the Directorate of Telecommunication Communications has established the National Computer Emergency Response Center (USOM, TR-CERT) to conduct national and international work concerning threats and preventive measures.

Also, within the scope of the [Communiqué on Procedures and Principles for the Establishment, Duties and Work of Teams Combating Cyber Incidents](#) published in the Official Gazette No. 28818 dated November 11, 2013 the establishment of an Institutional CERTs (Computer Emergency Response Team) and their duties were specified. This Communiqué has made it possible to develop units to take the necessary measures or have them taken against direct, indirect or probable cyber-attacks within the Ministries structure, to establish or have established the necessary mechanisms to combat such attacks and establish or have established an incident record system, to conduct or have conducted work on ensuring the information security of agencies.

Law of Protection of Personal Data No. 6698 regarding protection of personal data which is a fundamental issue for cyber security, was published in April 7, 2016. The purpose of the law is to regulate the procedures and principles binding for natural and legal persons and liabilities of those processing personal data and to protect fundamental rights and freedoms, especially confidentiality of private life. Agency on Protection of Personal Data was established to perform the duties given by law.

Ongoing work:

In line with the action of 2016 65th Government Action Plan, "35. Legal arrangements concerning cyber security will be activated" action and the action of "*37. A Cyber Security Law will be released*" in the 2015-2018 Information Society Strategy and Action Plan , the needs for regulations concerning cyber security will be determined and the legislation will be developed within the scope of the National Cyber Security Strategy and Action Plan.

Also in line with the action of "8. Regulations on protecting personal data will be implemented" in the 65th Government Program 2016 Action Plan and the action of "*38. Legislation on the Protection of Personal Information will be Issued*" in the 2015-2018 Information Society Strategy and Action Plan, implementing the necessary legal regulations concerning cyber security structure and personal data privacy was targeted. International documents, comparative legal applications and the applications in Turkey will be taken into account to issue a regulation in 2016 for personal data to be processed and protected according to modern standards.

9.3   CYBER SECURITY AWARENESS AND TRAINING

Cyber Drills

Due to Action Plans and previous cyber security threats, cyber security drills were organized three times in Turkey between 2008 and 2013. During these drills on a national scale, special care was shown to include especially public agencies and institutions and participants from many different sectors and professional fields.

The Cyber Security Initiative

The Cyber Security Initiative operates under the coordination of the MTMC with the participation of public agencies, private sector stakeholders and NGOs to inform citizens and small businesses about cyber security, create awareness, develop and explain protective measures, determine standards for positive content production, sector risk analysis and cyber security and publish reports and guidelines.

Information Security Training

By requests of agencies that need it, different levels of training are provided by the TÜBİTAK BİLGEM Cyber Security Institute and TSE.

Cyber Security Summer Schools

Every year since 2012, a Cyber Security Summer School has been organized by the TÜBİTAK BİLGEM Cyber Security Institute to respond to the need for people trained in cyber security in Turkey.

Awareness and Training Websites

www.bilgiguvenliği.gov.tr

Current warnings, informative guides and technical articles are broadcasted on the website called the National Information Security Gateway. Everyone and every organization concerned with information security can contribute content to the gateway. A very important function in terms of creating the accumulation of knowledge concerning information security needed has been

assigned to the gateway. Another important objective is to provide more interactive settings like e-mail lists through which public agency employees concerned with information security can exchange information directly.

www.bilgimikoruyorum.org.tr

The "I Am Protecting My Information" E-Learning Project is a social responsibility project conducted by TÜBİTAK-BİLGEM-SGE within the scope of the National Information Systems Program. The website presents basic information security awareness training that can be accessed by everyone.

Ongoing work:

Due to increasing threats and the ever growing significance of cyber security both the 65th Government Program and the 2015-2018 Information Society Strategy and Action Plan have especially emphasized cyber safety and the need for increased awareness on this subject.

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