Data Strategy and Governance in Türkiye

Strategies and Frameworks for Effective Management and Sharing of Government Data

September 10, 2024

Topics

- Data Strategy
- Key Points of Data Strategy
- Data Ecosytem in Türkiye
- Data Strategy in Türkiye
- Current Laws
- Role Of TURKSTAT
- Data Governance in TurkStat
- Public Sector Data Space Project
- Access and Use of Micro Data
- Electronic Data Research Center (E-DRC)
- Conclusions

Data Strategy

- Provides a structured approach to managing, utilizing, and deriving value from data assets.

- An effective data strategy:
  - ✓ Decision-making: Accurate Information
  - ✓ Efficiency: Streamlined Processes
  - ✓ Innovation: New Opportunities
  - ✓ Compliance: Data Protection
  - ✓ Cost Reduction: Eliminate Redundancy
  - ✓ Competitiveness: Data-Driven Insights
  - ✓ Digital Economy: Survival and Growth

Key Points of Data Strategy

- ✓ Enhanced decision-making
- ✓ Improved operational efficiency
- ✓ Enabling innovation
- ✓ Ensuring compliance
- ✓ Cost reduction
- ✓ Increasing competitive advantage
- ✓ Data as an asset
- ✓ Scalability and future-proofing
- ✓ Improved customer experience
- ✓ Supporting digital transformation

Data Ecosytem in Türkiye

- ✓ Digital transformation in Türkiye
- ✓ Compliance with Turkish regulations
- ✓ E-government initiatives
- ✓ Supporting Türkiye's growing tech sector
- ✓ Addressing Türkiye's unique market
- ✓ Supporting Türkiye's manufacturing sector
- ✓ Enhancing Türkiye's tourism industry
- ✓ Improving agricultural productivity
- ✓ Supporting Türkiye's financial technology sector
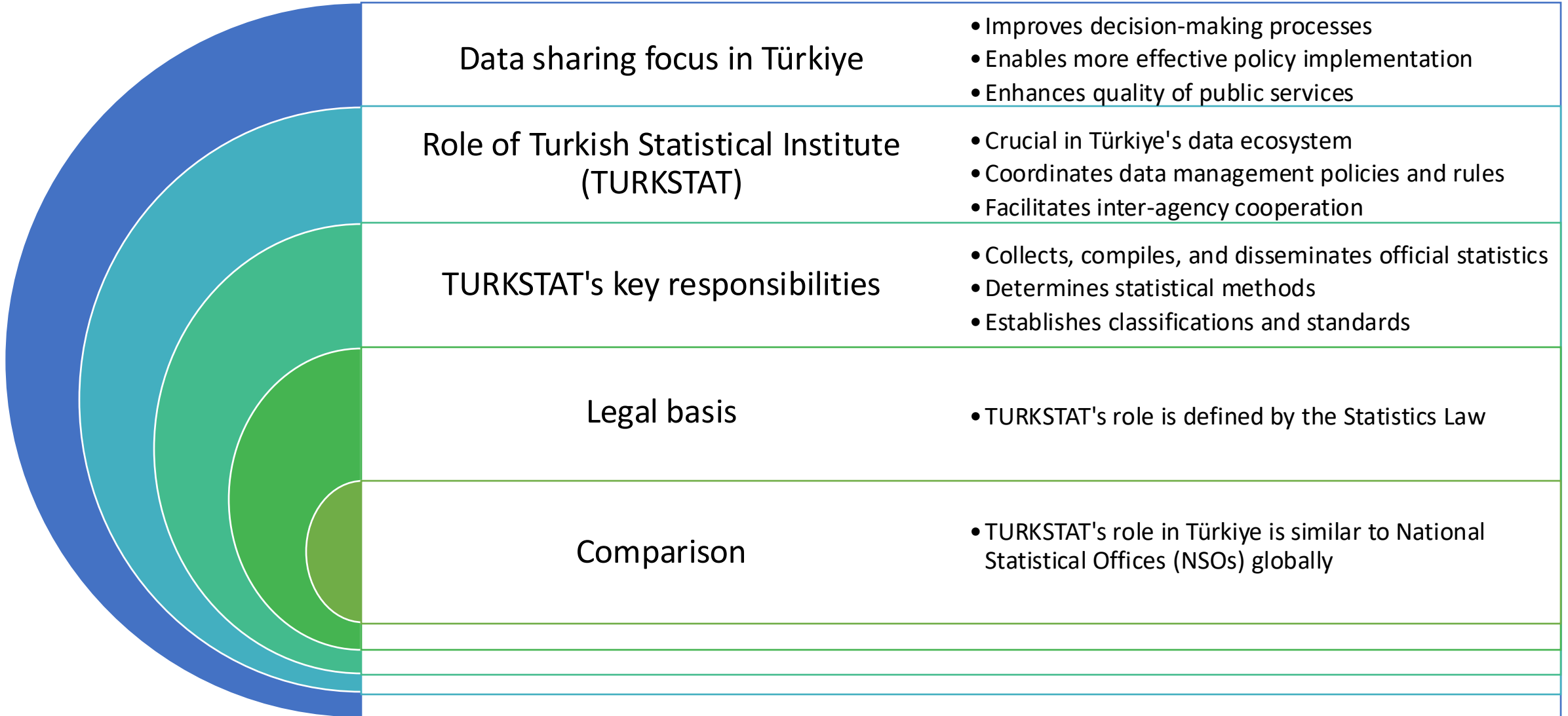- ✓ Addressing urban challenges

Current Laws

- ✓ Personal Data Protection Law
- ✓ Turkish Criminal Code
- ✓ Turkish Civil Code
- ✓ Law on the Protection of Consumer Rights
- ✓ Electronic Communications Law
- ✓ Law on Regulating Internet Publications and Combating Crimes Committed through Such Publications
- ✓ Banking Law

- ✓ Law on Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions
- ✓ Regulation on the Processing of Personal Health Data and Ensuring Their Privacy
- ✓ Regulation on Data Controllers Registry
- ✓ Trade Secrets Regulation
- ✓ E-Commerce Law
- ✓ Law on the Right to Information

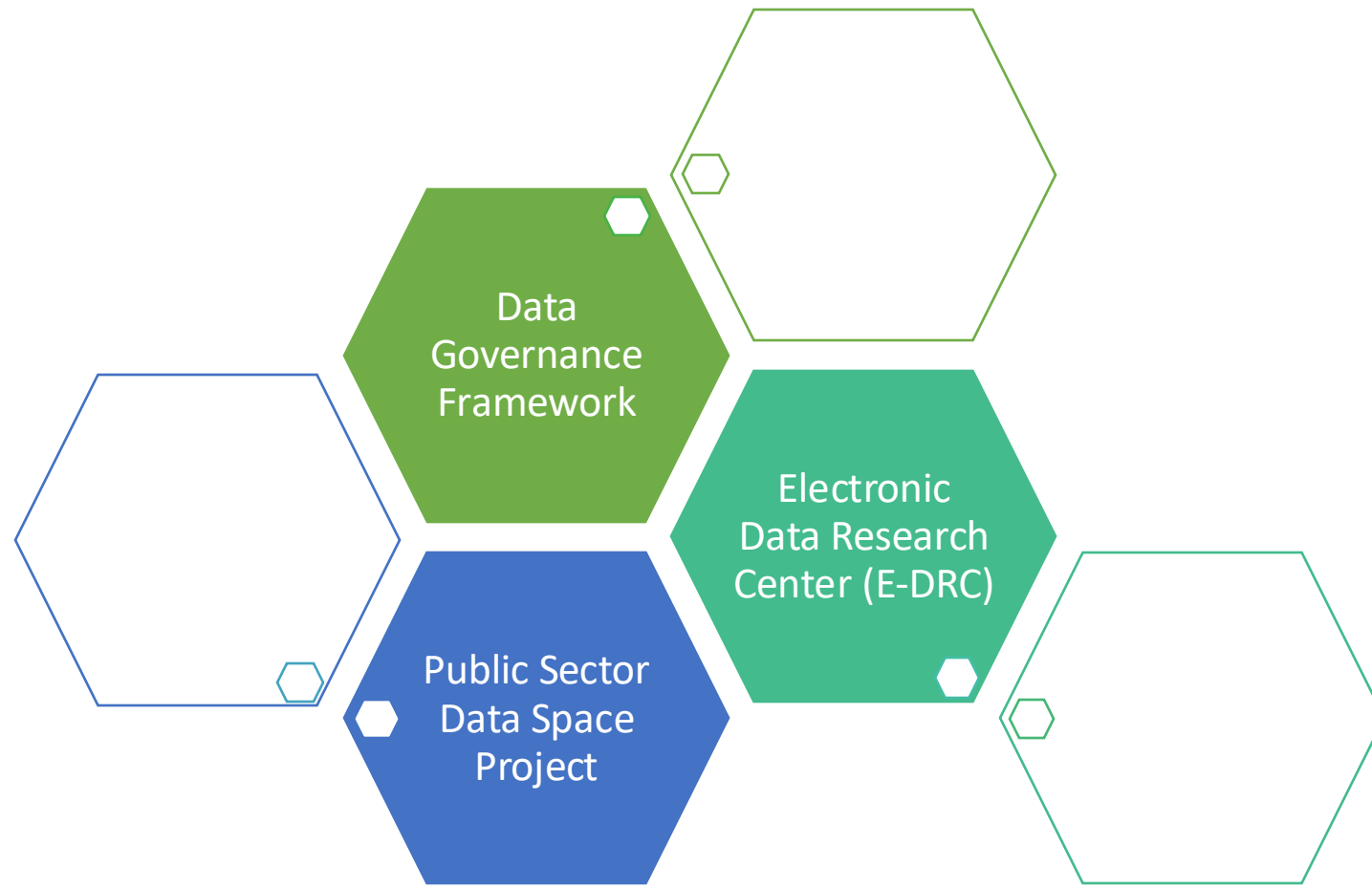# Data Strategy in Türkiye

Data Strategy

- Effective management of data exchange between public institutions becomes more crucial.

- Effective data sharing improves;
  - ✓ Inter-institutional cooperation
  - ✓ Transparency
  - ✓ Accountability
  - ✓ Public trust.

TÜİK
TURKISH STATISTICAL INSTITUTE

TURKSTAT as an NSO

Data sharing focus in Türkiye	• Improves decision-making processes • Enables more effective policy implementation • Enhances quality of public services
Role of Turkish Statistical Institute (TURKSTAT)	• Crucial in Türkiye's data ecosystem • Coordinates data management policies and rules • Facilitates inter-agency cooperation
TURKSTAT's key responsibilities	• Collects, compiles, and disseminates official statistics • Determines statistical methods • Establishes classifications and standards
Legal basis	• TURKSTAT's role is defined by the Statistics Law
Comparison	• TURKSTAT's role in Türkiye is similar to National Statistical Offices (NSOs) globally

The Studies Carried Out by Turkstat

Data Governance Framework

Electronic Data Research Center (E-DRC)

Public Sector Data Space Project

Data Governance

Data governance is the discipline of ensuring ownership, responsibility, access, metadata, quality, privacy, security, data management and culture within the framework of legislation, policies and regulations throughout the life cycle of data, and creating a harmonized infrastructure with national and international cooperation in this process.

Data Governance Framework

A data governance framework is a set of roles, principles, standards and disciplines that covers the entire life cycle of data with the participation of all stakeholders, provides high data quality, trust and efficiency with an up-to-date technological infrastructure, ensures data privacy and security, promotes data integration, develops data culture and literacy, and enables national and international cooperation.

Data Governance Framework Components

1. Policy, Guidelines & Regulations
2. Data Management
3. Data Culture
4. Technology & Infrastructure
5. Interoperability & Communication

1. Policy, Guidelines and Regulations	2. Data Management	3. Data Culture	4. Technology and Infrastructure	5. Interoperability and Communication
1.1. Vision and Mission	2.1. Management of Data	3.1. Data Literacy	4.1. Equipment	5.1. User Participation
1.1.1. Strategic Plan and Goals	2.1.1. Data Storage Management	3.1.1 Digital Competence	4.2. Software	5.2. Interoperability and Reusability
1.2. Roles and Responsibilities	2.1.2. Security Management	3.1.2 Statistical Literacy	4.2.1. Open Source Builds	5.3. Partnerships
1.2.1. Boards	2.2. Metadata Management	3.2. Data Governance Awareness	4.2.2. Licensed	5.3.1. National
1.2.2. Data Authority	2.2.1. Data and Metadata Catalog Management		4.2.3. Enterprise Solutions	5.3.2. International
1.2.3. Institutions	2.2.2. Code System and Classifications		4.3. Networks and Connections	
1.3. Data Ethics	2.2.3. Data Standardization			
1.3.1. Transparency	2.3. Data Quality Management			
1.3.2. Audit	2.4. Statistical Business Process Management			
1.4. Data Security and Privacy	2.4.1. Needs Determination			
1.4.1. Privacy and Security Policies and Procedures	2.4.2. Design			
1.5. Data Access and Sharing	2.4.3. Configuration			
1.5.1. National Data Access and Sharing	2.4.4. Data collecting			
1.5.2. International Data Access and Sharing	2.4.5. Data processing			
1.5.3. microdata	2.4.6. Data Analytics			
1.6. Quality	2.4.7. Data Distribution			
1.6.1. Standards and Metrics	2.4.8. Evaluation			
1.7. Monitoring, Evaluation and Continuous Improvement				
1.8. Risk management				
1.9. Finance and Budget				

Data Governance Framework Component #1

1. Policy, Guidelines & Regulations
2. Data Management
3. Data Culture
4. Technology & Infrastructure
5. Interoperability & Communication

- ⦿ Vision and Mission
- ⦿ Roles and Responsibilities
- ⦿ Data Ethics
- ⦿ Data Security and Privacy
- ⦿ Data Access and Sharing
- ⦿ Quality
- ⦿ Monitoring, Evaluation and Continuous Improvement
- ⦿ Risk management
- ⦿ Finance and Budget

Data Governance Framework Component #2

1. Policy, Guidelines & Regulations
2. Data Management
3. Data Culture
4. Technology & Infrastructure
5. Interoperability & Communication

- ◉ Management of Data
- ◉ Metadata Management
- ◉ Data Quality Management
- ◉ Statistical Business Process Management

Data Governance Framework Component #3

1. Policy, Guidelines & Regulations
2. Data Management
3. Data Culture
4. Technology & Infrastructure
5. Interoperability & Communication

- ◉ Data Literacy
- ◉ Data Governance Awareness

Data Governance Framework Component #4

1. Policy, Guidelines & Regulations
2. Data Management
3. Data Culture
4. **Technology & Infrastructure**
5. Interoperability & Communication

- Hardware
- Software
- Networks and Connections

Data Governance Framework Component #5

1. Policy, Guidelines & Regulations
2. Data Management
3. Data Culture
4. Technology & Infrastructure
5. Interoperability & Communication

- ◉ User Engagement
- ◉ Interoperability and Reusability
- ◉ Partnerships

Public Sector Data Space Project

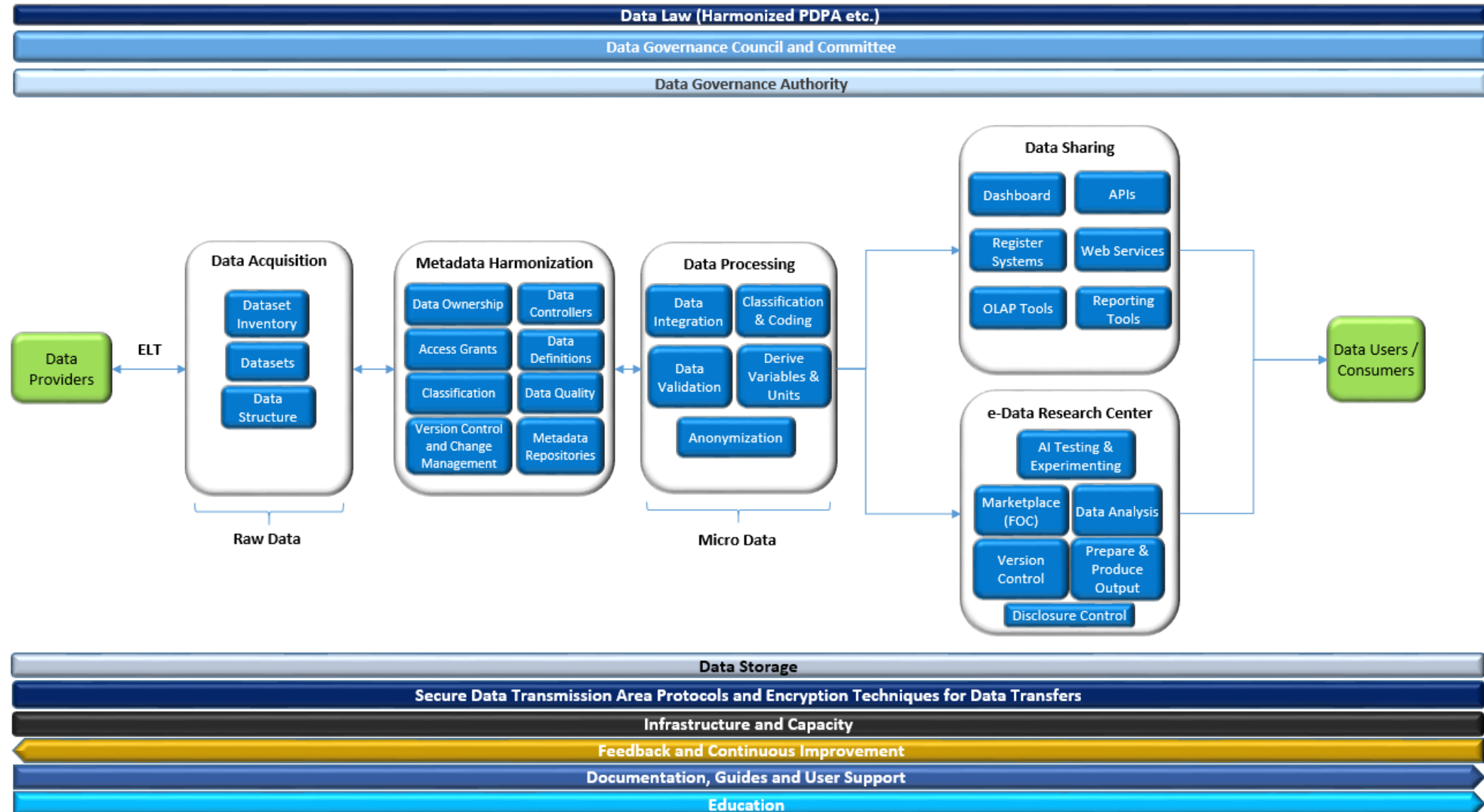**What will it provide?** >

Consolidated Data

AI Platform

Supporting Ecosystem

Public Sector Data Spaces Architecture with Governance

Access and Use of Micro Data

◉ TurkStat provides access and usage facility for the micro data in accordance with the legal legislation based on the researchers demand

◉ Procedures for usage in the context of 'Turkish Statistical Institute, Instructions for the Access and Use of Micro Data'

◉ The researchers of the following institutions and organizations can access to micro data produced and/or published by the TurkStat upon approval of the Presidency on condition that they are used in researches for scientific purpose:

- Institutions and organizations covered under the Official Statistics Programme
- Other official institutions and organizations in Türkiye
- Universities and other higher educational institutions
- Research based establishments and institutions
- International organizations at which Türkiye is a member

Characteristics of the Microdata Provided to Researchers

⦿ Acquired from
- surveys,
- administrative registers and/or
- other sources

⦿ Identifying information of statistical units are dropped from data such as
- Name,
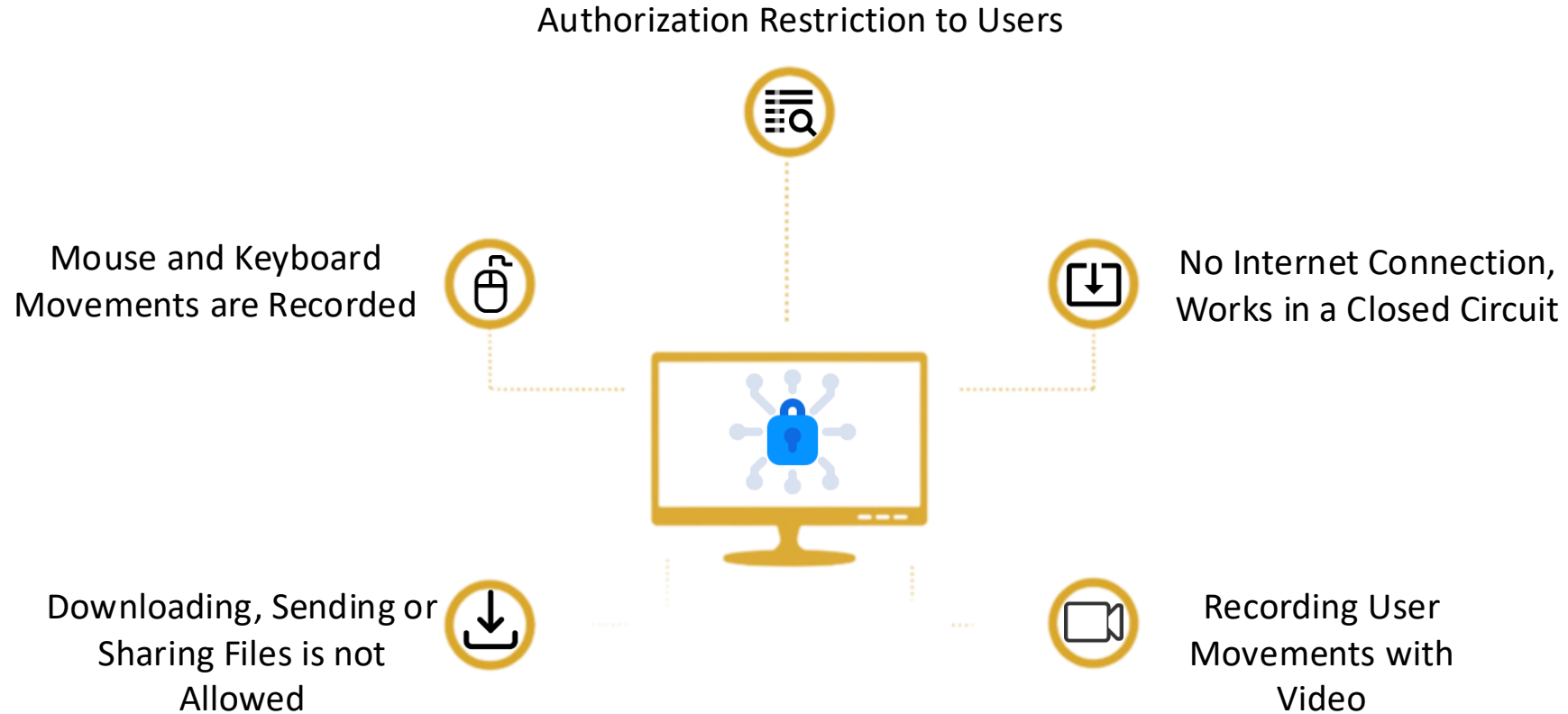- Title,
- Address etc.

⦿ Unique identifiers are anonymized

Electronic Data Research Center (E-DRC)

◉ Enables remote access to micro data

◉ It is a virtual environment where work can be done on microdata by connecting to applications and desktop software allowed by administrators through the browser

◉ Thanks to the fast and easy created virtual work environments, users can perform their analyzes without worrying about performance

◉ It is still a project and continues to be developed in hardware and software.

E-DRC Features

Data Access with Authorization

Location Independent Access

High Security

Easy Installation and Fast Use

Remote Access Opportunity

Putting on Hardware and Software Workforce Burden to the Institute

Professional Management

Fast Work Environments

Viewing Apps Directly in the Browser

E-DRC Security

Authorization Restriction to Users

Mouse and Keyboard Movements are Recorded

No Internet Connection, Works in a Closed Circuit

Downloading, Sending or Sharing Files is not Allowed
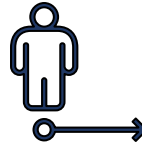
Recording User Movements with Video

E-DRC Data Extraction

When the analysis results are wished to be
extracted from the E-DRC
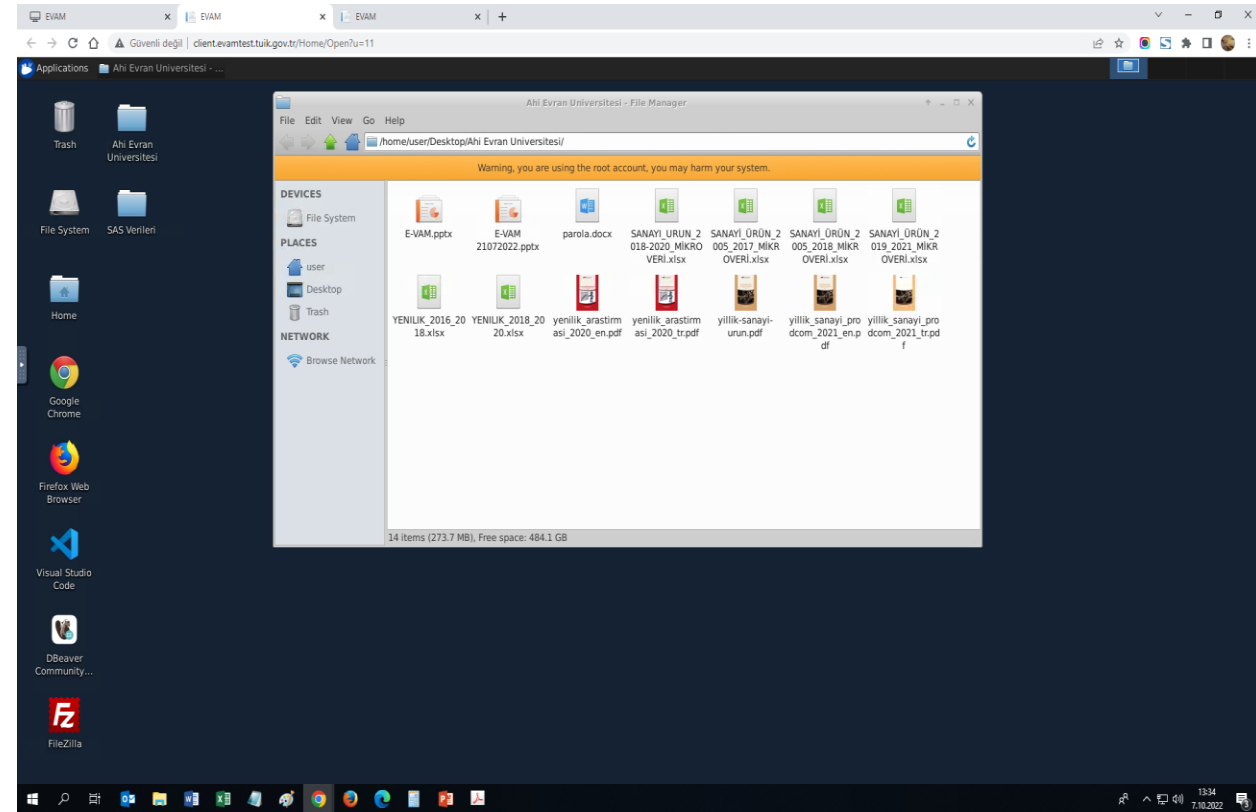
Output extraction
application is made
through the system

After the head of the
relevant subject matter
group approves the
request

Output is shared
through the system

E-DRC Workspace

- Through the portal, users can examine the metadata of micro data sets, apply and create a workspace

- Users log in to the system by entering the authenticator key information along with their e-mail and password information

- Users are be able to use the applications that will be installed on their screens (VM) within the scope of the authorizations given to them by the administrator

- Users can manage their own profiles, see their open sessions and applications, and continue their work as if they are on their own computers

Conclusions

To Sum Up

❖ Data Strategy, Governance → Decision-Making, Innovation

❖ Data Management, Security, Privacy → Digital Ecosystem

❖ TURKSTAT → Data Dissemination, Digital Transformation, Access

❖ Collaboration, Governance Frameworks → Sustainable Progress

Thanks for listening..

serhan.kokhan@tuik.gov.tr