Future Turkstat Metadata Management System

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Turkstat
**Metadata as an output of process**

Being produced within almost all of the production processes, metadata is an integral part of the production of statistical data.

For example, while specifying needs and checking data availability, information about data sources comes out. Similarly, the process of designing data collection methodology is also the stage in which data collection frequency and method are decided.
Background – Cont’d

At present, metadata information is collected by different units of different departments using different tools in a non standardized way.

Thus, sometimes metadata demanded by those departments may overlap and subject matter units may be asked to provide the same information over and over again using different tools and standards.
Future Metadata Management System—Cont’d

This situation prevents us to run queries, generate reports and do analysis on metadata despite the fact that there’s a lot of metadata being collected within our institute.

So, by gathering up metadata information within a system using same software and metadata standards, a structure that is relational, easy to run queries and easy to analyse can be achieved.
Future Metadata Management System-Cont’d

In this regard, a Metadata Management System has been decided to be built.

For this purpose, first, metadata systems currently used were determined and relations between them and new components needed has been defined. After the logical design of the system, the components with priority have been decided and software development stage has been initiated for them.

In-house
Objectives

- Documenting metadata systematically,
- Linking data to its metadata,
- Data and metadata dissemination using international metadata standards,
- Run queries, analysis and take reports,
- Process based metadata collection,
- Monitoring variables and other objects throughout processes,
- Decreasing workload on subject units resulting from metadata works,
- Coordinate metadata works better
Expected results

- A new perspective
- Decrease in workload
- Increase in efficiency
- Process traceability
- Metadata-driven processes and automation
- Data and metadata dissemination in compliance with international metadata standards
Turkstat’s Metadata Management System

Documents:
- User manuals
- Standards defined
- Information Model
- Maintenance procedures
- Archive and Change management
- Standardised contents
- Standardisation rules applied to new content
- Stakeholder organisations, roles and responsibilities
- Rules applied to add new module
- System users: types, roles and permissions
- SRS document
- Outputs

Modular structure:
- Modules & sub-modules
- Interrelated modules
- Expandable

International standards support

Centralised & Decentralised

Management

Turkstat MMS Software & Supporting IT Systems

Manuals & Other Documents
Turkstat MMS Software - Properties

- Simple
- Modular → Expandible
- International standards support
- Process based
- Re-use
- User and role based
- Analysis, query and report support
Foreseen Modules of Turkstat’s Metadata Management System

- Terms, Variables & Categories
- User and Modules Management
- Analysis, Reports, Outputs
- Process Monitoring
- Web Dissemination
- Classification Server
- Document Repository
- Reference Metadata
- Code Lists Module
- Questions Repository

Other Systems
- UOQR, IQR, ESMS, ESQRS, SIMS
- Quality Indicators, Data Revision and Seasonal Adjustment concepts
- Quality Label

Other Systems
- National Data Release Calendar
- Official Statistics Portal
- Turkstat’s Intranet
- Harzemli
- Turkstat Content Management System
- Turkstat HR
- Turkstat MIS
- Document Management System

Process based metadata, Production Process Calendar, Field and Other Control Lists, Paradata
Process based metadata

- Document metadata at the moment it comes to exist
- Monitoring metadata throughout statistical processes
- Monitoring processes over metadata
- Linking processes and metadata entries with process calendar
## Statistical Process and Metadata

<table>
<thead>
<tr>
<th>Specify Needs</th>
<th>Design</th>
<th>Build</th>
<th>Collect</th>
<th>Process</th>
<th>Analyse</th>
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<td>3.1. Build collection instrument</td>
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<td>Questionnaire application</td>
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<td>2.1. Design outputs</td>
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<td>5.4. Edit and impute</td>
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<td>6.3. Interpret and explain outputs</td>
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<td>7.5. Manage user support</td>
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**Oman Study Visit, 2018, Ankara**
Steps of Turkstat’s Metadata Management System

Step 1. Identifying the Needs
Step 2. Specification of the standards
Step 3. Design
Step 4. Developing the Metadata Management System's Software
Step 5. Establishing a Metadata Management System Management Team
Step 6. Preparation of the User Guide and the documents related to the Standards
Step 7. Preparation of the Draft Content
Steps of Turkstat’s Metadata Management System

Step 8. Introduction of Metadata Management System
Step 9. Pilot test of the Software
Step 10. Making the Provider Agreements
Step 11. Entering contents to the Modules
Step 12. Monitoring and Assessment of Metadata Management System
Step 13. Maintenance and Update
Step 14. Archiving
What we have done so far

- Implementation steps were defined.
- All modules of the MMS software was logically designed.
- Manuals, rules and standards applied to Turkstat MMS was started to be prepared (versioning rules, users and permissions, user manual for C&D Module, etc.)
- Reference metadata scheme was prepared.
- An inventory of concepts was prepared.
- C&D Module was designed (concepts scheme, database structure, GUI’s, actions & status’s on concepts)
- Help module was designed.
- C&D Module is on development stage.
Tukstat MMS- Concepts & Definitions Module GUls

Tuk Metaveri Yönetim Sistemi

Ana Sayfa  >  Yapısal Metaveri  >  Kavram Bankası  >  Kavram Listesi

Kavram Adı  
İstatistik Adı  
Kavram Tipi  
Durum  
Tarih Başlangıç  
Tarih Bitiş

Ara

Kavram Adı  | İstatistik Adı  | Kavram Tipi  | Durum  | Ekleme Tarihi  | İşlemler
---|---|---|---|---|---
Adolesan Doğurnalık Hizi  |  | Değişken  | Oluşturuldu  | 10.01.2018  | Guncelle  | Onay Gönder  | Öndüze
Aile  |  | Terim  | Oluşturuldu  | 10.01.2018  | Guncelle  | Onay Gönder  | Öndüze
Alt Kademe Belediyesi  |  | Terim  | Şçerik reddedildi  | 20.12.2017  | Guncelle  | Reddedildi  | Öndüze
Alt Kademe Belediyesi  |  | Terim  | Şçerik onaylandı  | 29.12.2017  | Guncelle  | Onaylandı  | Öndüze
Alt kademe (Bknz. Alt Kademe Belediyesi )  |  | Terim  | Şçerik onaylandı  | 29.12.2017  | Guncelle  | Onaylandı  | Öndüze
Thank you for your attention...