

# Industrialization of Official Statistics Production Systems, What is It and How to Get There?

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# AGENDA

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MODERN CONCERNS of OFFICIAL STATISTICS

KEY QUESTIONS & SOLUTIONS

INDUSTRIALIZATION: DEFINITION AND MEANS

PRODUCTION MANAGEMENT SYSTEM OF TURKSTAT

ACHIEVEMENTS

KEY REMARKS

# MODERN CONCERNS of OFFICIAL STATISTICS

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Challenges getting more serious: increasing number of other actors providing data, necessities of data consumers expand and diverge

Down-to-earth Quality Management: Quality from being a value to an output

Adaptation to non-traditional data sources: Big data, Multi-source Data



# KEY QUESTIONS & SOLUTIONS

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Is the production environment of official statistics agile enough?

Does it evolve rapidly enough?

What can be done to be enough and preferred?

Modernizing the Official Statistics production systems is proposed as a solution, and a requirement as well.

«Industrialization» makes the solutions concrete.



# INDUSTRIALIZATION

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Centrally managing the production environment that is separated in well structured sub-modules, in which all inputs and outputs are identified and controlled, processes are transparent, well-defined and monitored, and the system is managed by means of metadata pieces that are re-useable and the overall production is maintained by transferring metadata information across sub-modules.

The environment is open to continuous improvement without distracting the production processes, so that production is separated from design.



<https://www.godfrey.com/>

# MODERNSTATS MODELS

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GSIM and GSBPM play important role in designing next-generation industrialized systems.

Speak the same statistical language: They create a common understanding of all the objects and tasks that are used through the overall production phases.

Industrialize: They break the systems into small well-defined pieces which enables the experts to easily design, re-use and organize.

# SECOND PART OF THE QUESTION: HOW?

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"Culture eats strategy for breakfast."

Peter Drucker

Build technologies, systems and tools that masquerade as the culture.



# PRODUCTION MANAGEMENT SYSTEM OF TURKSTAT

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ProMa is a modular software that provides end-to-end centralized management of the statistical production system.

It ensures the integration of processes and applications in the institution and enables monitoring them person independent.

It brings together many business processes and provides information flow between.

It aims to transform the system into a metadata system based on international standards by integrating metadata scattered in different environments with data.



# A NEW APPROACH

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**Masquerade as the culture:** Emphasize production!

To proceed in production, you have to complete metadata steps: up-to-date metadata and synchronous process monitoring.

The used objects are retained maintainable and versionable: standardization and re-usability.

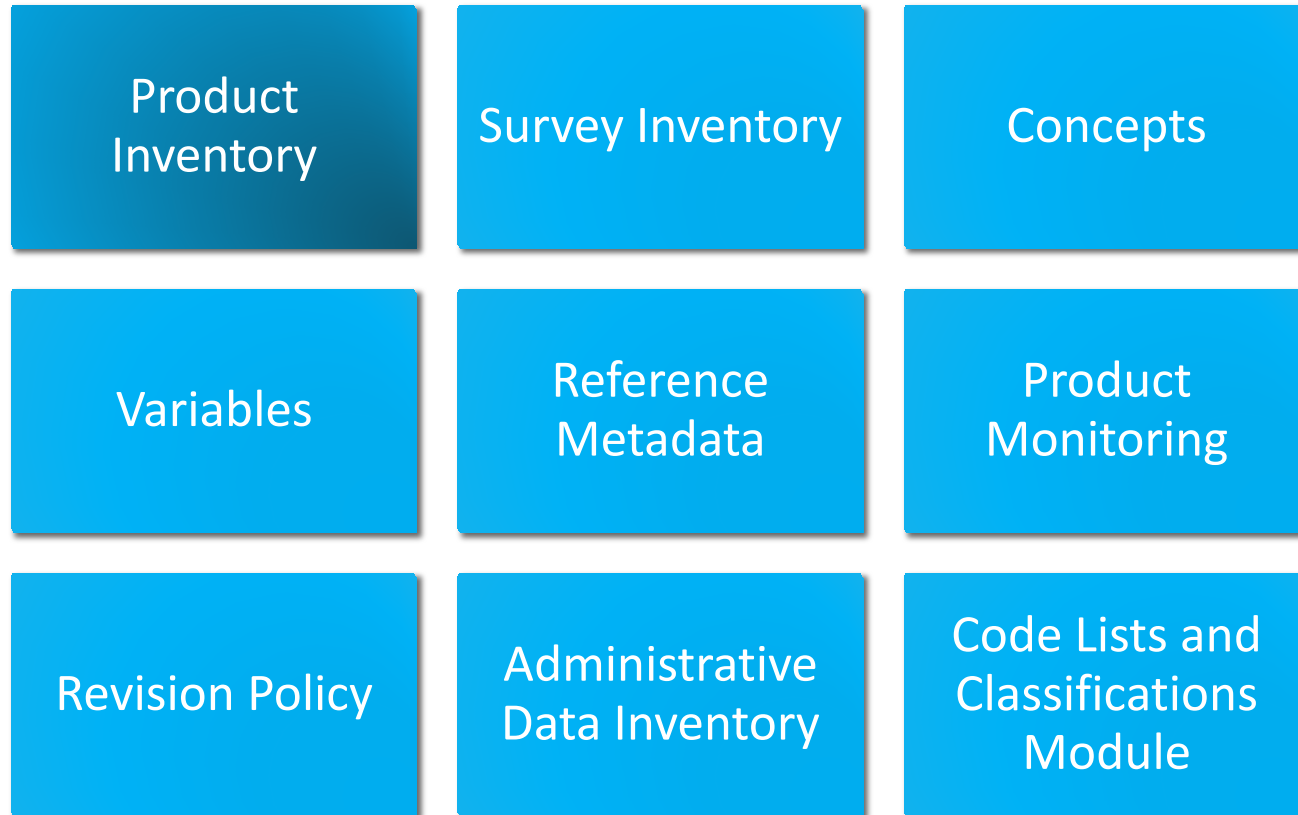
Service based modular system based on information transfer interoperability.

Central management of metadata: labor productivity.

A growing knowledgebase and institutional memory.

# PRODUCT MANAGEMENT SYSTEM - ProMa

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47

2022

Rutin Revizyon Planı Olan  
Ürün

1

2022

Ana Revizyon Planı Olan  
Ürün

80

2022

Verisinde Revizyon  
Uygulanmayan Ürün

96

2022

Toplam Revizyon Bilgi  
Formu Sayısı

128

2022

Toplam Revizyon Kaydı  
Sayısı

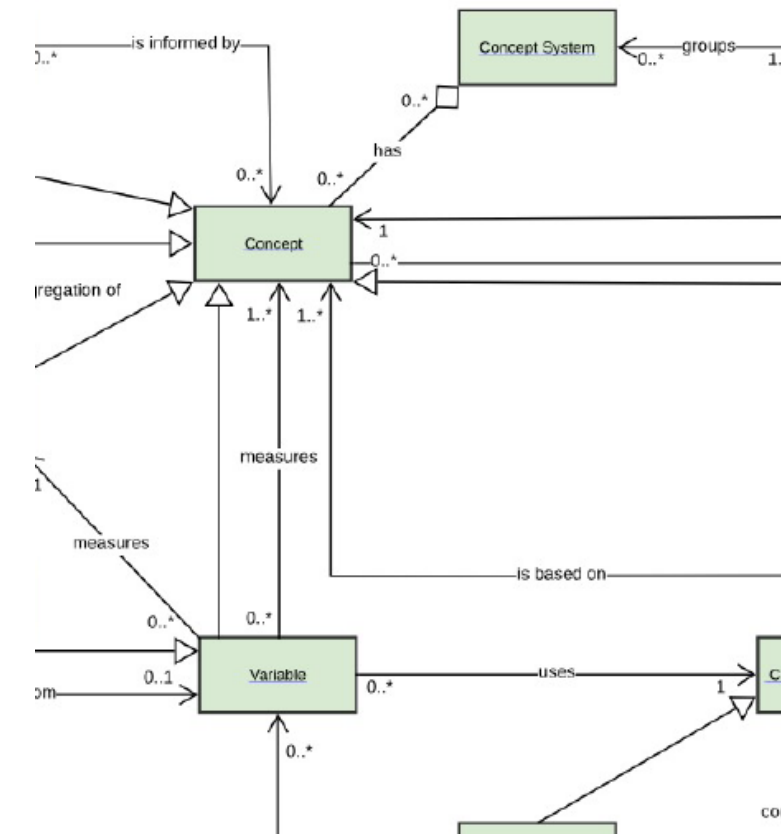
Filtrele

Ürün No. ▼	Ürün Adı ▼	Revizyon No.	Sorumlu Grup Başkanlığı ▼	Durumu ▼
02.0053	Devlet Destekli Tarım Sigortaları	02.0053.RP.2022.00	Tarimsal Yapı İstatistikleri Grup Başkanlığı	Onaylandı
02.0055	Tarimsal İşletme İşgücü Ücret İstatistikleri	02.0055.RP.2022.00	Tarimsal Yapı İstatistikleri Grup Başkanlığı	Onaylandı

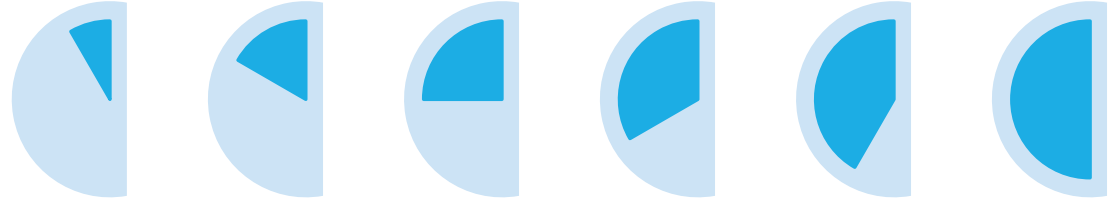
Process

# GSIM: VARIABLES AND CONCEPTS

ProMa Module	GSIM	ProMa Concept Structure
VARIABLES	INSTANCE VARIABLE	PHYSICAL VARIABLE
VARIABLES	VARIABLE	CONCEPTUAL VARIABLE
VARIABLES	UNIT	UNIT
CONCEPTS	CONCEPT	CONCEPT
CONCEPTS	UNIT TYPE	UNIT TYPE
CONCEPTS	CONCEPT FIELD	CSA LEVEL 2
CONCEPTS	SUBJECT FIELD	CSA LEVEL 1



# ACHIEVEMENTS



A new culture is being built step by step.

We are building a new infrastructure based on an industrialized metadata and production systems.

Production units started to work based on their **products** in important systems and modules.

Six modules of ProMa have been launched this year.

Structural metadata studies has been improved.

# KEY REMARKS

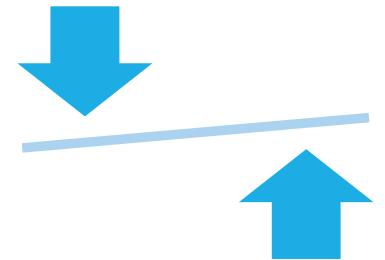
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Modernization is a never ending journey!

Flexible systems are the key not to build any system from scratch.

On the implementation of ModernStats models: emphasize must be on the real practical use.

Online easily accessible platforms used to share real life implementation experiences, ideas, and plans are expected to contribute to concerns.



# Thank you for your attention.

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