

# Statistical Data Governance Framework for Data Interoperability (DAFI)

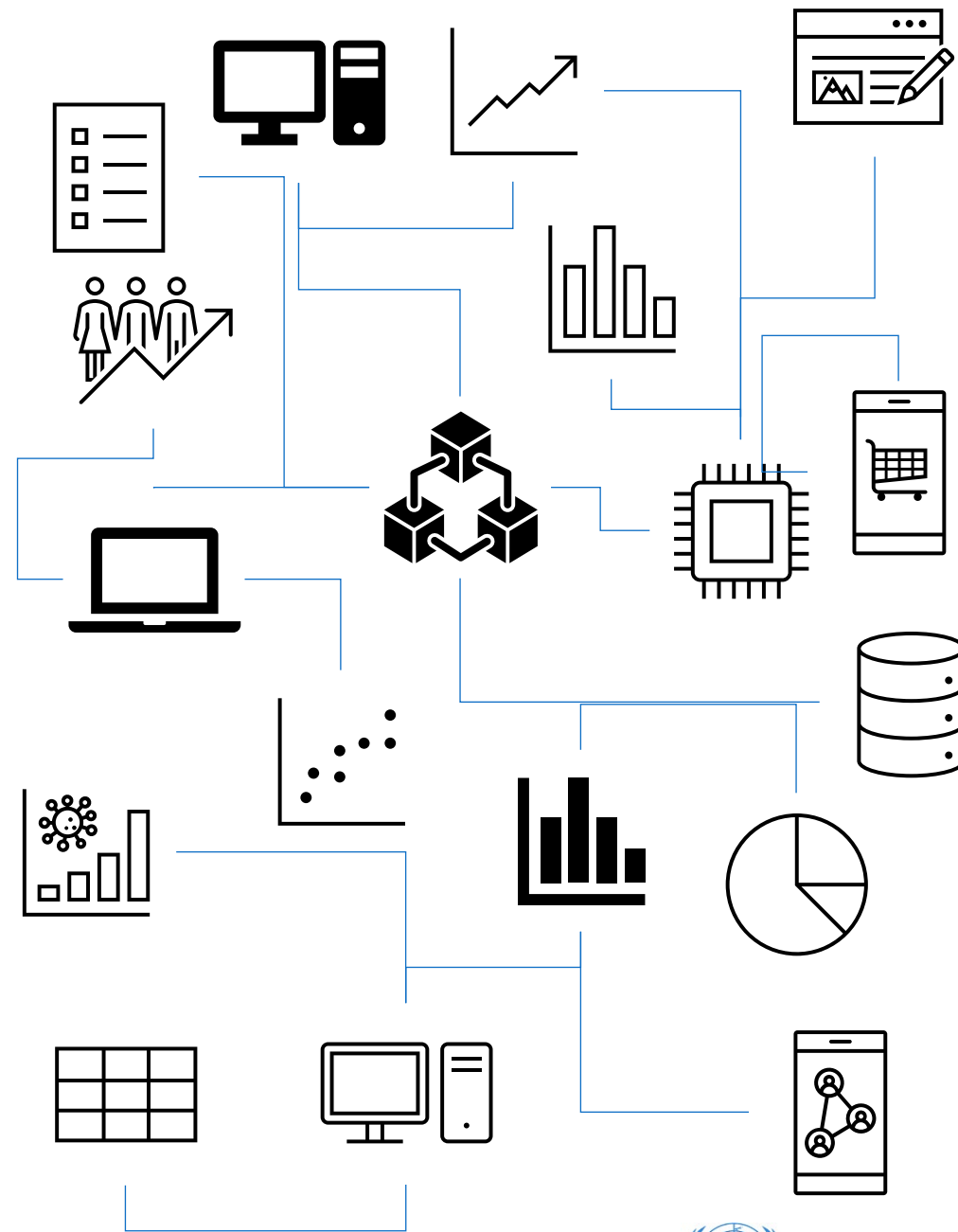
Workshop on the Modernisation of Official Statistics  
21-22 November 2023

# Data Governance Framework for Statistical Interoperability (DAFI)

A model and a set of guidelines and recommendations that identify the elements, structure, interactions, processes, and rules required to establish the conditions of an information governance environment focused on facilitating the making of decisions required to align the efforts to achieve statistical interoperability

# Interoperability

Capacity to exchange and make use of the information with minimal or no prior communication..



# Statistical Interoperability

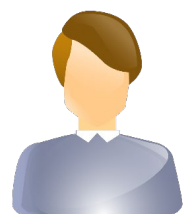
## Original message:

Accordingly, to the National Survey of Demographic Dynamics (ENADID 2018) made by INEGI, in 2018 Mexico had a population of 124.9 millions of persons, being women 51.1% of them

## Received message:

Accordingly, to the National Survey of Demographic Dynamics (ENADID 2018) made by INEGI, in 2018 Mexico had a population of 124.9 millions of persons, being women 51.1% of them

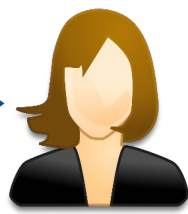
Capacity to share and make use of statistical information among different parties or electronical systems without distortions of its meaning, not needing to get additional specifications or make ad-hock adjustments for each specific case



Sender



Shared Data



Receiver

# Levels of Statistical Interoperability

Specify needs	Design	Build	Collect	Process	Analyse	Disseminate	Evaluate
1.1 Identify needs	2.1 Design to collect	3.1 Build data collection systems	4.1 Collect data	5.1 Prepare data	6.1 Analyse data	7.1 Disseminate data	8.1 Evaluate data
1.2 Identify needs	2.2 Design to collect	3.2 Build data collection systems	4.2 Collect data	5.2 Prepare data	6.2 Analyse data	7.2 Disseminate data	8.2 Evaluate data
1.3 Identify needs	2.3 Design to collect	3.3 Build data collection systems	4.3 Collect data	5.3 Prepare data	6.3 Analyse data	7.3 Disseminate data	8.3 Evaluate data
1.4 Identify needs	2.4 Design to collect	3.4 Build data collection systems	4.4 Collect data	5.4 Prepare data	6.4 Analyse data	7.4 Disseminate data	8.4 Evaluate data
1.5 Identify needs	2.5 Design to collect	3.5 Build data collection systems	4.5 Collect data	5.5 Prepare data	6.5 Analyse data	7.5 Disseminate data	8.5 Evaluate data
1.6 Identify needs	2.6 Design to collect	3.6 Build data collection systems	4.6 Collect data	5.6 Prepare data	6.6 Analyse data	7.6 Disseminate data	8.6 Evaluate data
1.7 Identify needs	2.7 Design to collect	3.7 Build data collection systems	4.7 Collect data	5.7 Prepare data	6.7 Analyse data	7.7 Disseminate data	8.7 Evaluate data
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1.9 Identify needs	2.9 Design to collect	3.9 Build data collection systems	4.9 Collect data	5.9 Prepare data	6.9 Analyse data	7.9 Disseminate data	8.9 Evaluate data
1.10 Identify needs	2.10 Design to collect	3.10 Build data collection systems	4.10 Collect data	5.10 Prepare data	6.10 Analyse data	7.10 Disseminate data	8.10 Evaluate data



Internal to the Information Production Process

Between programs in the Same Domain

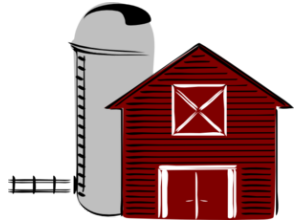
Between Statistical Domains



**Conceptual, Temporary, and Geographical**



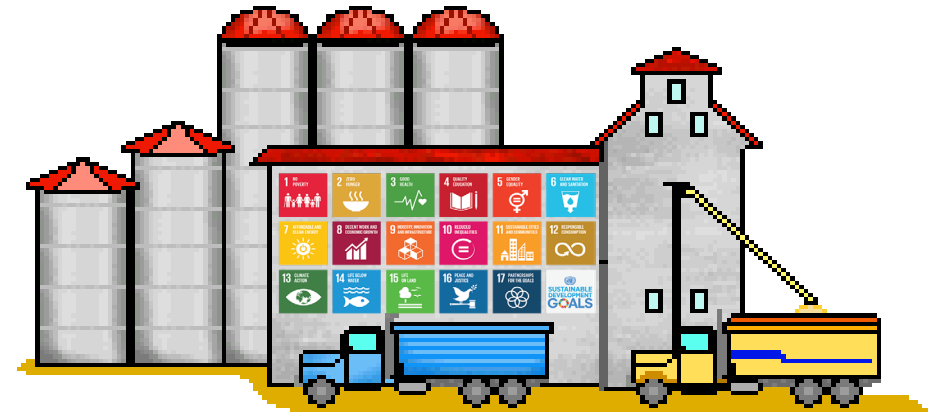
# The Root of the Interoperability Problem



Labour statistics



Human settlements and housing statistics



Sustainable development



Regional and small area statistics



Macroeconomic statistics



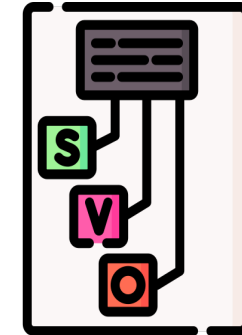
- Differences in definitions of concepts between programs /domains (sometimes, even between program cycles)
- Unstandardized classifications
- Heterogeneous formats



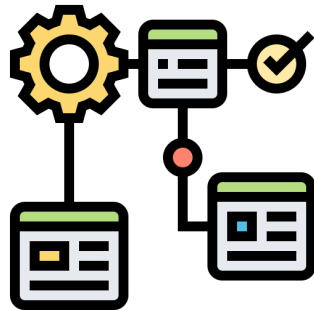
# Taxonomy of Interoperability: The Four S



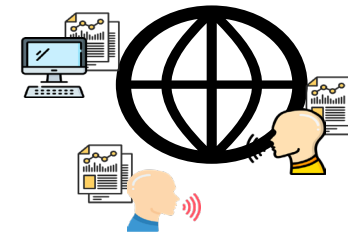
System



Syntactic



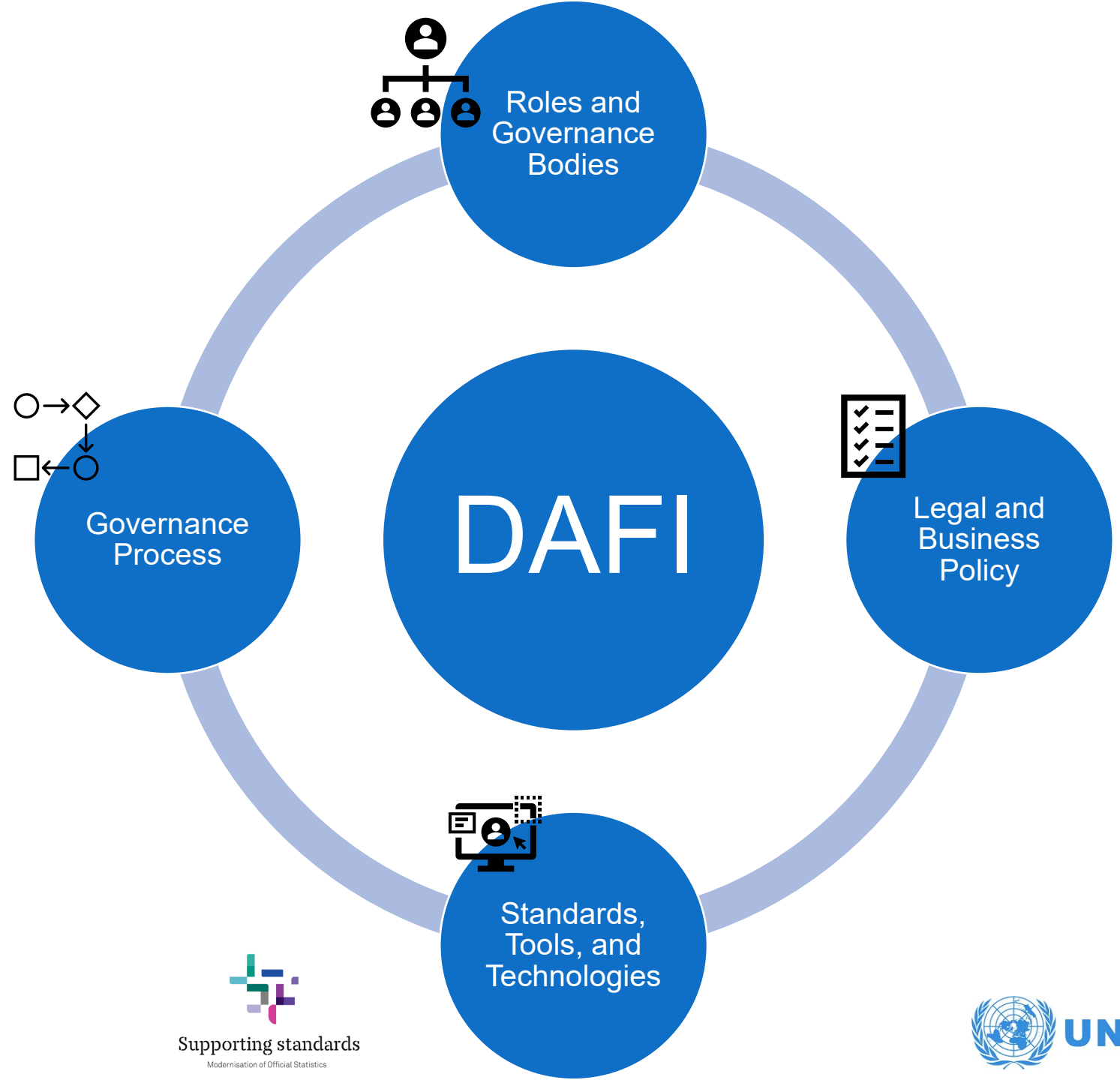
Structural



Semantic

Facets (types) of  
Statistical  
interoperability

# DAFI Components





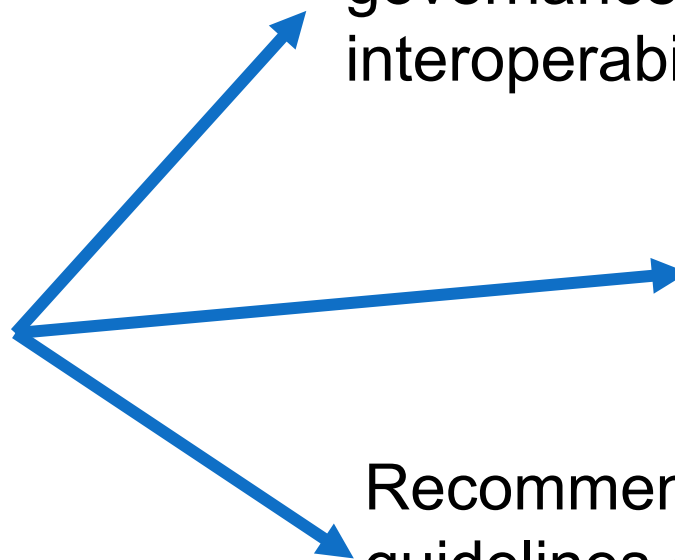


# Benefits

- Tool to:
  - Harmonize the statistical data environment
  - Maximise the value of data produced by the statistics office making it more transparent, manageable and comparable
  - Advance in the integration of information and elimination of information silos
  - Improve decisions in the design of different instances of statistical processes
  - Create a way to effectively reuse information and tools
  - Improve the information products and services

# Output of the Project

A document describing a reference framework containing the main elements to achieve data interoperability.



Understanding of basic terms related to data governance and statistical interoperability

Identification of the core elements needed to achieve statistical interoperability

Recommendations and guidelines on how to apply existent models and tools to establish an interoperable data environment

# The Document Status - 1

- The document structure follows the logic of:
  - Chapter 1: Why do we need a Framework for Interoperability? (Introduction)
    - Background
    - Problem Statement (Dan's document on "Interoperability definition")
    - Scope and Purpose
    - Core Terms
  - Chapter 2: What do we want to achieve? (Statistical Interoperability)
    - Interoperability in Statistical organizations: definition and related concepts
    - Aspects (types, facets, ...) of interoperability
    - Benefits of interoperability
    - Sources of non-interoperability

# The Document Status - 2

- Chapter 3: How we will achieve our goals? (DAFI Framework)
  - Roles and functions / governance body (with examples and good practices, connections with GAMSO and GSBPM)
  - Legal and business policy
  - Standards, tools and technologies available (see Flavio's schema)
  - Governance process (with examples and good practices)
- Chapter 4: Recommendations for NSOs
  - Recommendations by facets
  - Check-list (?)
  - Interoperability “By design”, How-To introduce standards, Metrics, Sponsorship, Mind-set, Risks/Costs

# Thank You

## Comments, Questions, Any Feedback

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