

# Assessing and documenting quality of indicators: established practices and outstanding issues

Session 30 - Satisfying User's Needs: Dissemination

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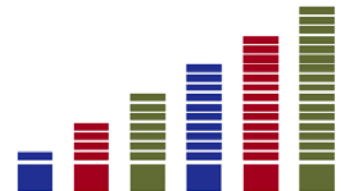
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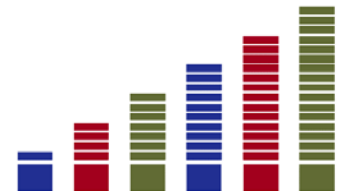
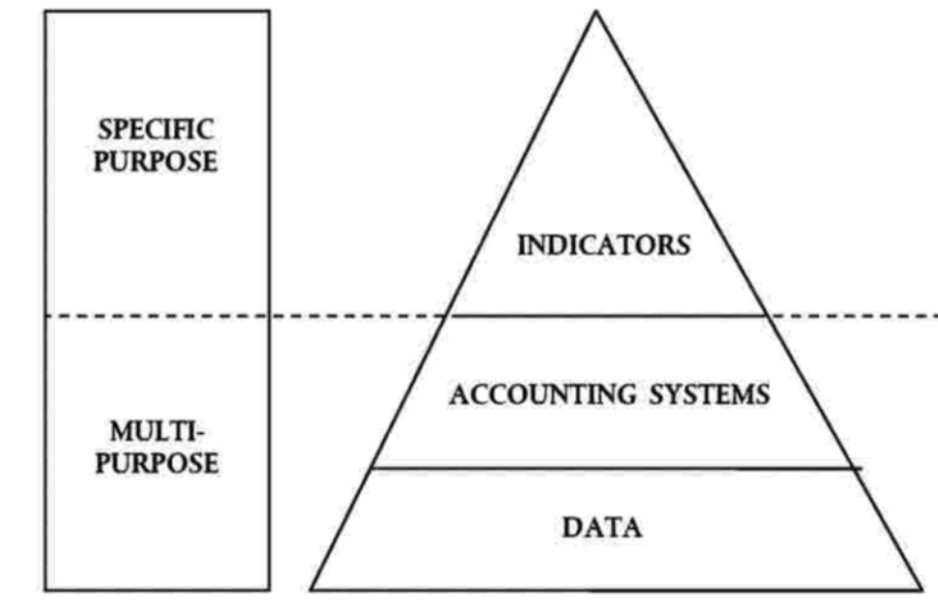
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## Indicators: special product of official statistics

- Summary measure related to key issues or phenomenon and derived from a series of observed facts (Regulation (EU) No 99/2013)
- Tools for designing, implementing, monitoring policies (Lisbon memorandum)
- Derived from statistical data and accounting systems and created for **a specific purpose**



# Statistical information infrastructure

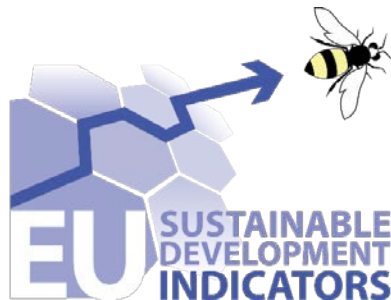


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established practices and outstanding issues

## Eurostat indicator initiatives

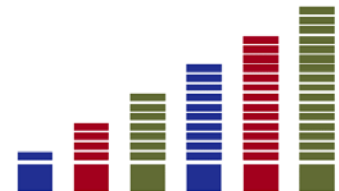


QUALITY OF LIFE



**Macroeconomic  
Imbalances  
Procedure**

**SUSTAINABLE  
DEVELOPMENT  
GOALS**

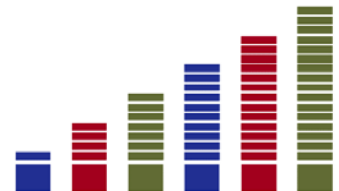


## **Need for appropriate documentation (metadata) on:**

- Data sources
- Methodology
- Quality

## **Eurostat metadata:**

- Euro-SDMX Metadata Structure ([ESMS](#)) for statistics in general
- ESMS Indicator Profiles ([ESMS-IP](#)) for indicators



## Assessing and documenting quality of indicators: established practices and outstanding issues

### Waste generation and treatment (env\_wasgt)

Reference Metadata in Euro SDMX Metadata Structure (ESMS)

Compiling agency: Eurostat, the statistical office of the European Union

### Generation of waste excluding major mineral wastes (tsdpc210)

Indicator Profile (ESMS)

Data tables: [tsdpc210](#)

Compiling agency: Statistical Office of the European Union (Eurostat)

#### Eurostat metadata

##### Reference metadata

- [1. Contact](#)
  - [2. Metadata update](#)
  - [3. Statistical presentation](#)
  - [4. Unit of measure](#)
  - [5. Reference Period](#)
  - [6. Institutional Mandate](#)
  - [7. Confidentiality](#)
  - [8. Release policy](#)
  - [9. Frequency of dissemination](#)
  - [10. Dissemination format](#)
  - [11. Accessibility of documentation](#)
  - [12. Quality management](#)
  - [13. Relevance](#)
  - [14. Accuracy](#)
  - [15. Timeliness and punctuality](#)
  - [16. Comparability](#)
  - [17. Coherence](#)
  - [18. Cost and Burden](#)
  - [19. Data revision](#)
  - [20. Statistical processing](#)
  - [21. Comment](#)
- [Related Metadata](#)  
[Annexes](#) (including footnotes)

**ESMS**

#### Eurostat metadata

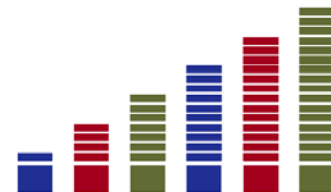
##### Reference metadata

- [1. Contact](#)
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#### Eurostat Quality Profile

<a href="#">14.1. Accuracy - overall</a>	Medium
<a href="#">16.1. Comparability - geographical</a>	High
<a href="#">16.2. Comparability - over time</a>	High
<a href="#">20.1. Source data</a>	ESS

**ESMS-IP**



## Proposal for a shorter ESMS-IP

1. Contact

2. Metadata update

3.1 Data description

4. Unit of measure

5. Reference Period

6. Institutional Mandate

7. Confidentiality

8. Release policy

9. Frequency of dissemination

10. Dissemination format

11. Accessibility of documentation

12. Quality management

13. Relevance

14. Accuracy

15. Timeliness and punctuality

16. Comparability

17. Coherence

18. Cost and Burden

19. Data revision

20.1 Source data

21. Comment

Related Metadata

Annexes (including footnotes)



## New ESMS-IP

- Shorter and lighter (3-5 pages)
- Focused on policy context
- Less burdensome to compile and maintain
- Coherent with ESMS
- No information loss

### Generation of waste excluding major mineral wastes (tsdpc210)

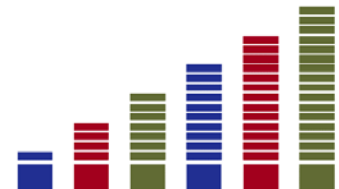
Indicator Profile (ESMS)

Data tables: [tsdpc210](#)

Compiling agency: Statistical Office of the European Union (Eurostat)

Eurostat metadata
Reference metadata
<a href="#">1. Contact</a>
<a href="#">2. Metadata update</a>
<a href="#">3. Data description</a>
<a href="#">4. Unit of measure</a>
<a href="#">5. Dissemination format</a>
<a href="#">6. Relevance</a>
<a href="#">7. Accuracy</a>
<a href="#">8. Comparability</a>
<a href="#">9. Source data</a>
<a href="#">10. Comment</a>
<a href="#">Related Metadata</a>
<a href="#">Annexes (including footnotes)</a>

Eurostat Quality Profile	
<a href="#">7. Accuracy</a>	Medium
<a href="#">8.1. Comparability-geographical</a>	High
<a href="#">8.2. Comparability-over time</a>	High
<a href="#">9. Source data</a>	ESS





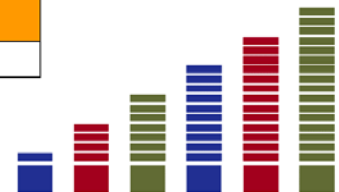
## Open issues with current Quality Profile

1. Which quality dimensions?
  - Are accuracy, comparability over time and geographical comparability the most relevant ones for European statistics?
2. Assessment criteria: how to assess quality for each dimension?
  - Objective criteria
  - Consistent criteria across indicators
3. Grading system: how to present quality?
  - 2 (high/low) vs 3 (high/medium/low) grades
  - Overall grading vs separate grading of each quality dimension



## Eurostat Quality Profile – rating criteria

Quality concepts	Rating				Comments
	High	Medium	Low	Not applicable	
Comparability - over time	5 years or more without any breaks in time series, due to methodological reasons.	3<5 years without any breaks in time series, due to methodological reasons.	< 3 years without any breaks in time series, due to methodological reasons.	For instance for GDP in PPS	If less than 5 years of data available, then, to rate "High", all years/periods should be without any break in time series .
Comparability - between countries (for the most recent period)	Data for all countries are comparable.	Data for all major countries are comparable.	Data for at least one major country is NOT comparable.		The list of major countries depends of the statistical domain .
Accuracy (for the last 5 years for major countries)	Corrections counter for < 1 % of the exact or true final value.	Corrections counter for 1 - 5% of the exact or true final value.	Corrections counter for >5% of the exact or true final value.		The list of major countries depends of the statistical domain.
Data Source(s)	ESS or Specify other sources (EEA, OECD, ...)				



## Conclusions

1. Increasing use of statistical indicators in policy making → transparent, clear, accurate and user-friendly information
2. Need for indicator-specific metadata structure
  - Concise
  - Context focused
3. Need to address issues of synthetic quality assessment
  - Quality dimensions
  - Assessment criteria
  - Grading system

