Principles and practices of data exchange

Daniel SURANYI
Eurostat
Innovative Data Exchange Practices
Innovative Data Exchange Practices

Early Warning System
FDI Network
Extractive Industries Transparency Initiative
European Groups Register
Secure multi-party computation
MNE data for tax authorities
Data Gaps Initiative
CASE STUDIES
GNI Pilot
Innovative Data Exchange Practices

Traditional: statistical

Traditional: non-statistical

Paradigm shift
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Principles

Aspects / criteria

Technical approaches

Decision matrix
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**Principles**

Aspects / criteria

Technical approaches

Decision matrix
Principles

Relevance
• What if we had all the data needed at hand?
• Clear business case

Statistical confidentiality
• Statistical purposes only
• Need to know
• Data protection

Adequacy of resources
• No additional burden on respondents
• Existing mandate: data collection and access
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**Principles**

**Aspects / criteria**

**Technical approaches**

**Decision matrix**
Aspects / Criteria

Purpose of data exchange

Type of data
- sensitivity, volume, granularity

Regularity of exchange

Legal considerations
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Principles

Aspects / criteria

Technical approaches

Decision matrix
Technical approaches

*Shared data*

*Shared algorithms*

*Shared services*

*Shared computation*
Technical approaches

Shared data

Shared algorithms

Shared services

Shared computation
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Principles

Aspects / criteria

Technical approaches

Decision matrix
Decision matrix - objective

Criteria

Aspects

Approaches

Ideal platform
Decision matrix - dimensions

Regularity ↔ Volume
Decision matrix
Regularity ↔ Volume

Ad-hoc
Sometimes
Often

Messages
Databases
Algorithms

Services
Computation
Examples

- Email
- Transmission systems (EDAMIS)
- SDMX Web Services
- ESS Validation services
- UN Global Platform pilot
Security?

Volume

Ad-hoc  Sometimes  Often

Services  Computation

Databases  Algorithms

Messages
Secure Services Computation

Secure Databases

Secure Messages

Volume

Ad-hoc Sometimes Often

Security ☺
CASE STUDIES

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Technical Conclusion