

Countries' experience in the exchange of economic data

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Exchange of economic data

Need for international work arises



STATISTICS

- Group of Experts on National Accounts 2015 and 2016:
 - Data exchange is essential for measuring global production
 - Asked international organizations to facilitate data exchange
 - Called for data confrontation within and between countries
 - Underlined data exchange as a means of proper data validation
 - National circumstances, challenges and risks need to be considered
- Bureau of the Conference of European Statisticians (CES):
 - Decided to undertake an in-depth review of the exchange and sharing of economic data
 - Statistics Finland agreed to lead the in-depth review
 - UNECE and Statistics Finland decided to carry out a survey

Survey on data exchange

Information from national statistical offices



STATISTICS

- The survey of national statistical offices (NSOs):
 - Carried out in April 2016 among CES member states
 - All together 48 statistical offices replied to the survey
- The aim was to:
 - Cover national and international exchange of economic data
 - Collate experience, concerns and challenges
 - Review current institutional arrangements
 - Collect information on gaps and ideas for international work
- The survey included the following parts:
 - Scope of economic data exchange
 - Organizational aspects
 - Benefits and challenges
 - International activities and national capacity

Scope of economic data exchange

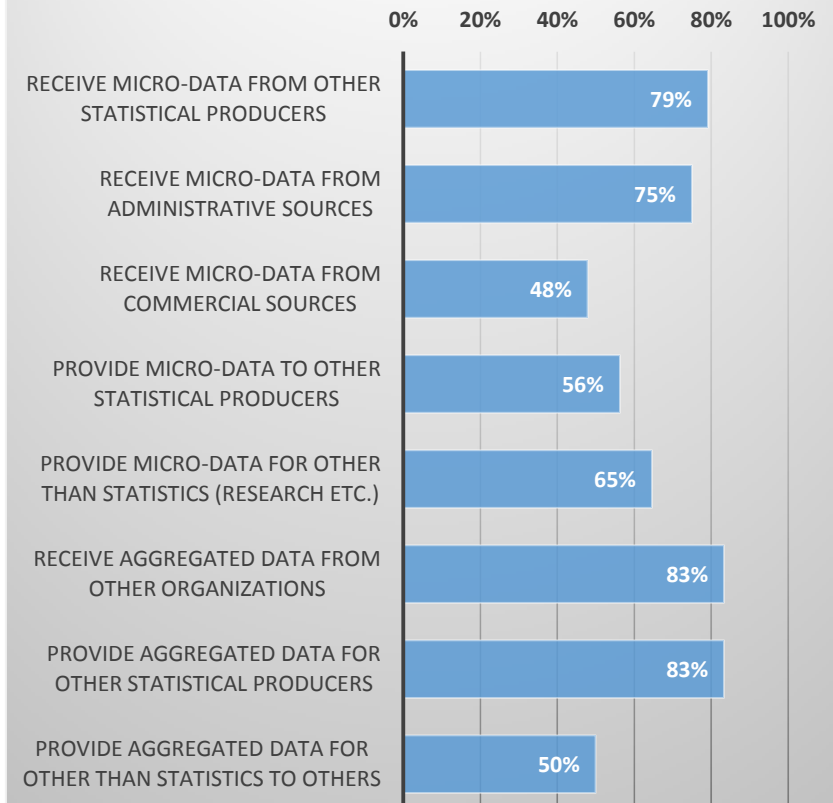
National data sharing



STATISTICS

- All offices exchange data at the national level
- Exchange of aggregated data is most common (83%)
- Typically NSO is the receiving party for micro-data
 - Mostly from other producers or administrative sources (75-79%)
 - Almost half receive micro-data from commercial sources (48%)
- It is common to provide micro-data for research (65%)
- Only half provide micro-data to other producers
 - Over 80 % provide data as aggregates
- One third of offices examine multinational enterprises (MNEs) with other producers of statistics nationally (33%)

Exchange of economic data at national level



Scope of economic data exchange

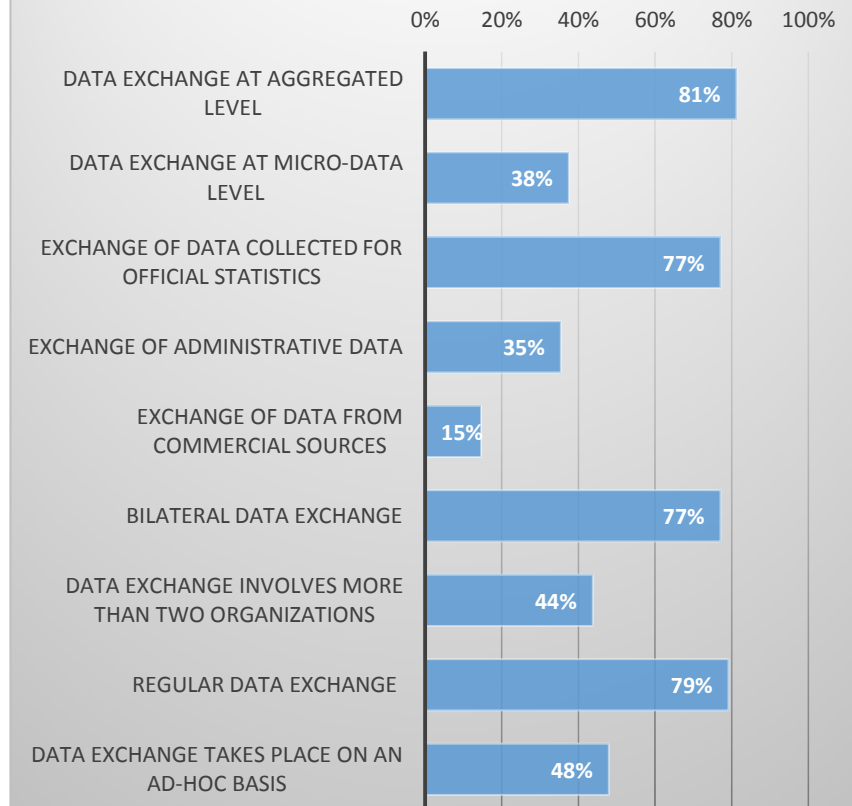
International data sharing



STATISTICS

- Almost all offices have exchanged data at the international level (94%)
 - Most exchange aggregated data (81%)
 - Micro-data exchange is less common (38%)
- Types of data exchanged internationally:
 - Data collected for official statistics (77%)
 - Administrative data (35%)
 - Commercial data (15%)
- International data exchange is most often bilateral (77%)
- Exchange is typically carried out regularly (79%), but half also exchange data ad-hoc
- Less than one third of offices examine MNEs with NSOs from other countries (27%)

Exchange of economic data at international level



Organizational aspects

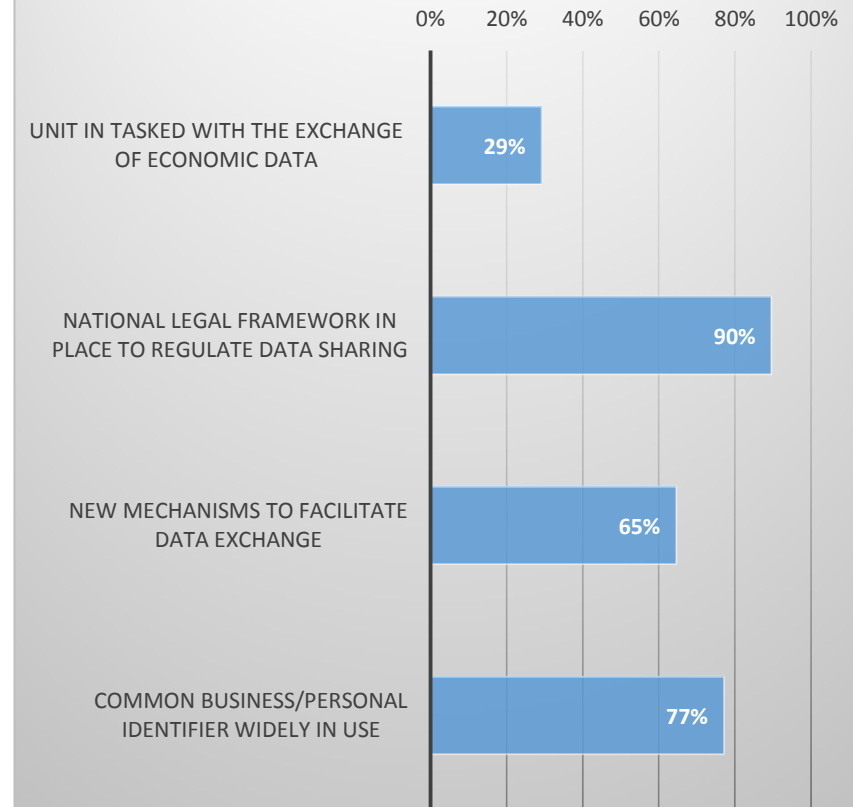
Enablers and limits of data sharing



STATISTICS

- Some offices have assigned exchange of economic data to a single unit (29%)
 - Some large and complex enterprises units (LCU) coordinate data exchange
 - National accounts have a coordinating role in some countries
- National legal framework regulates data exchange in 90% of responding countries
- Two thirds introduced new cooperation mechanisms, agreements or legislation (65%)
 - Data sharing agreements are common with administrative data providers
- Common business and personal identifiers are widely used (77%)
- The role of common statistical business register highlighted as an important tool for data exchange!

Organizational aspects of data exchange and sharing



Benefits and challenges

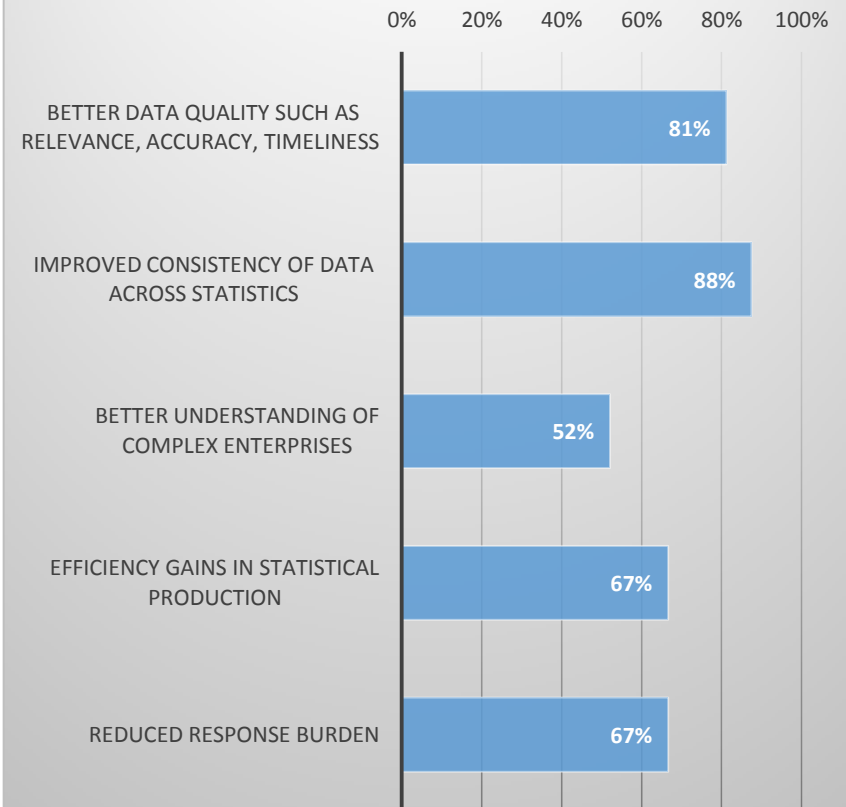
Benefits and successful cases



STATISTICS

- Most offices reported better quality of statistics in terms of:
 - Coherence across statistics (88%)
 - Relevance, accuracy and timeliness (81%)
- Two thirds experienced efficiency gains and reduced response burden (67%)
- Half achieved better understanding of complex enterprises (52%)
- Countries shared some success stories:
 - Joint data collection between the NSO, Central Bank and Customs
 - Significant improvements from data exchange in the area of foreign trade
 - Research using statistical data provided visibility and prominence to NSO
 - Reduced asymmetries due to international data exchange
 - Increased integration between statistics

Benefits from national and international data exchange



Benefits and challenges

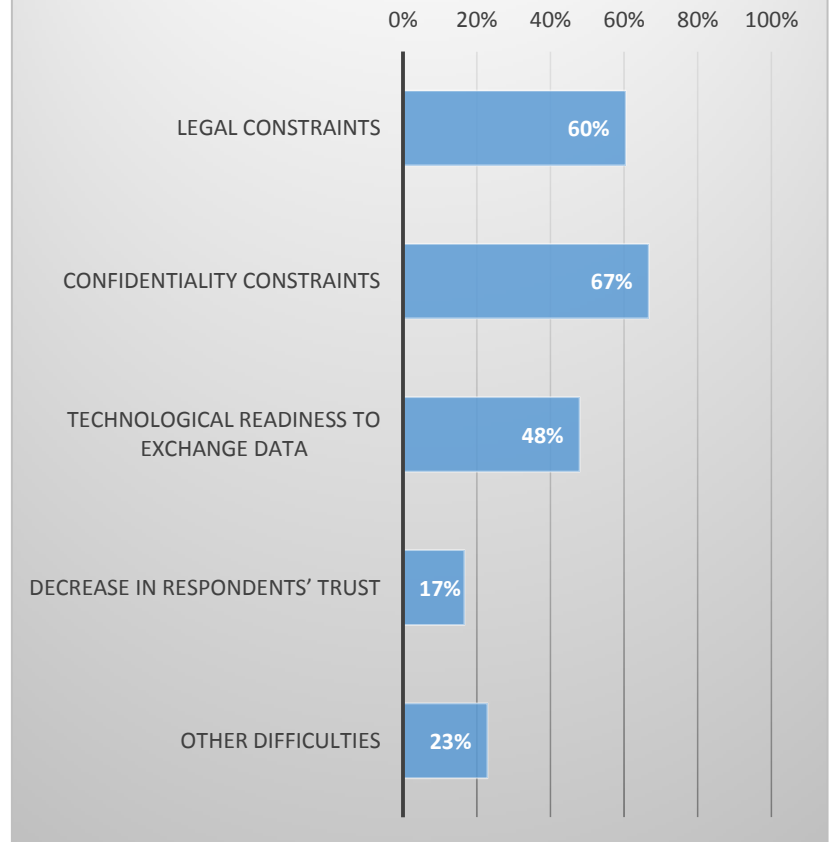
Challenges and difficulties



STATISTICS

- Confidentiality constraints are the main challenge for data sharing (67%)
- In most countries the current legal frameworks limit data sharing (60%)
- Half experience gaps in technological readiness to exchange data (48%)
- Some offices are also concerned about a decrease in respondents' trust (17%)
- Other difficulties mentioned by 23% include:
 - Increased dependency from external data
 - Problems in linking international data
 - Lack of human resources to do this work
 - Differences of units across data sources
 - Source data quality
 - High investment costs

Difficulties in national and international data exchange



Benefits and challenges

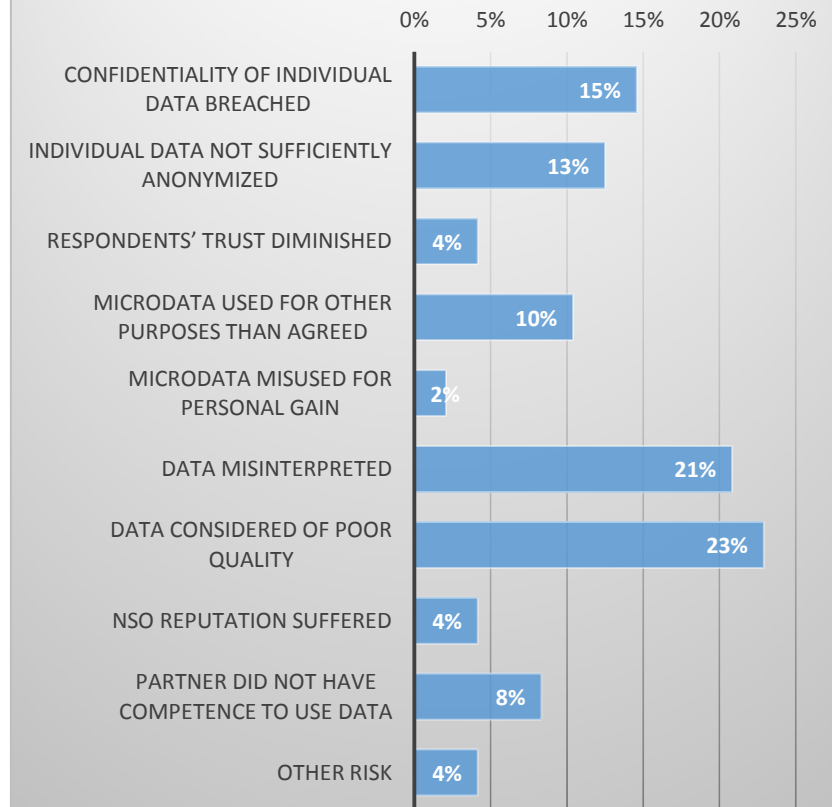
Risks that have realized



STATISTICS

- Risks of data exchange have rarely realized but are potentially very damaging
- Problems relate to data quality being judged as poor (23%) or misinterpretation (21%)
- Some cases with confidentiality breaches (15%) or data not well anonymized (13%)
- Microdata have been used for other purpose than agreed in some cases (10%)
- Partner's ability to use data was low (8%)
- Individual cases where:
 - Respondents' trust diminished
 - NSO reputation suffered
 - Microdata misused for personal gain

Risks of data sharing that have realized in practice



International activities and national capacity

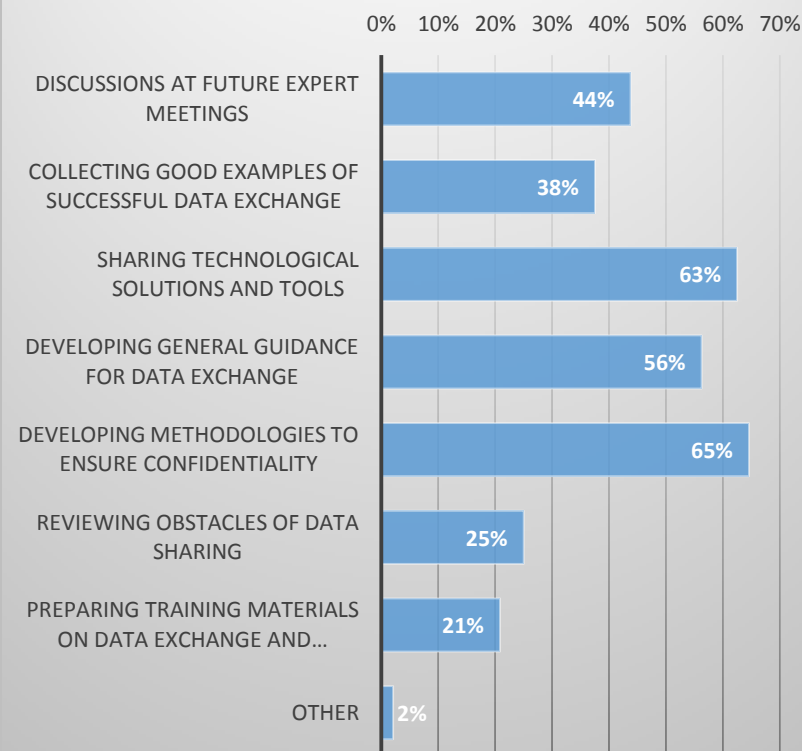
Priorities for international work



STATISTICS

- International organizations should facilitate progress in data exchange, especially by
 - Developing common methodologies to ensure confidentiality (65%)
 - Sharing technological solutions and tools (63%)
 - Developing guidance for data exchange (56%)
- It would be useful to:
 - Discuss data exchange at expert meetings (44%)
 - Collect good examples of successful data exchange cases (38%)
 - Review obstacles of data sharing (25%)
- Guidance is needed in particular on:
 - Drafting legislation and agreements that facilitate data exchange and ensure confidentiality
 - Common data exchange standards, rules and procedures across countries
 - Modern tools and software for data exchange
 - Reconciliation methodologies and recommended practices with MNEs

International activities to facilitate the exchange of economic data



International activities and national capacity

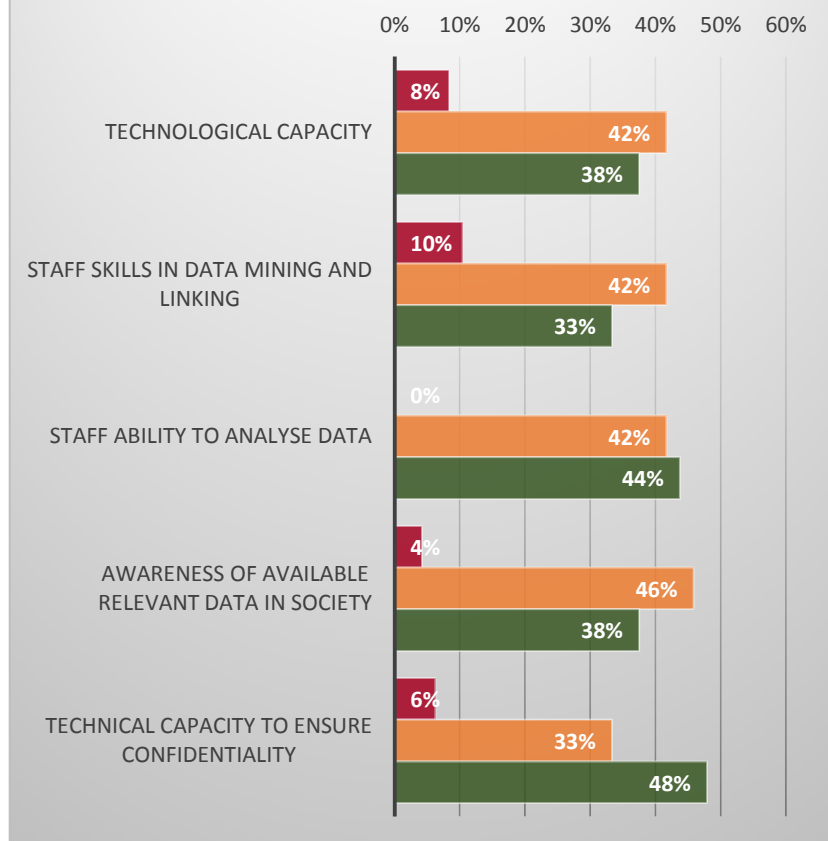
National capacity for data exchange



STATISTICS

- Capacities ranked highest included:
 - Capacity to ensure confidentiality (48% - high)
 - Ability to analyse data (44%)
 - Technological capacity (38%)
 - Awareness of relevant data sources (38%)
- Capacities ranked lowest included:
 - Skills in data mining and linking (10% - low)
 - Technological capacity (8%)
 - Capacity to ensure confidentiality (6%)
 - Awareness of relevant data sources (4%)
- Weaknesses and strengths varied greatly across countries
- Data mining skills need improvement also in many advanced offices

National capacity to carry out data exchange



Conclusions

Key findings from the survey

STATISTICS



- The survey provided rich information
 - More details in the paper
- A trend towards increased exchange of micro-data nationally and internationally
- Clear benefits from data exchange
- Challenges, limits and risks need to be addressed together
- Common methodologies, guidance and tools needed

		Reuse of micro-data at national level	
		No	Yes
Exchange of micro-data at international level	Yes	0	18
	No	3	27

Thank you!

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Meeting of the Group of Experts on National Accounts: Measuring Global
Production, UNECE/Eurostat/OECD, Geneva, 31 May – 2 June 2017

