



# EUROPEAN CONFERENCE ON QUALITY IN OFFICIAL STATISTICS 2024 ESTORIL - PORTUGAL

From experimental statistics to  
official statistics: state of the art  
and prospects in Istat

**Arianna Carciotto** – Orietta Luzi  
Istat-Italian National Statistical Institute



## Experimental statistics (ES): some key elements

### Management

- no ESS univocal definition
  - no shared rules to produce and manage ES
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### Innovation drivers

- massive IT development
  - new data sources
  - new tools
  - new methods
  - innovative processes
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### Innovative outputs

- new analyses
  - new indicators
  - other innovative products
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### Features

- not full compliance with ESS Code of Practice
- still under development and/or improvement
- high information power
- clearly identified (ad hoc logo, graphic standards,...)



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## Experimental statistics: benefits

- Faster production/timeliness
- New information and analyses
- Reduction of data collection costs
- Reduction of burden on respondents
- Impulse to official statistics for a wider information supply
- Role of users in improving relevance
- Speeding up research in specific domains also through interaction with Academia and other data holders

Amending Regulation 223/2009 on European statistics:  
*Statistics can be developed, in accordance with users' need and in specific areas, **in the form of statistics under development or experimental statistics.** Those statistics should be treated as European statistics and their release should be accompanied by **information on their quality***



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## Experimental statistics: drawbacks

- Quality issues
- May not perfectly fit the pre-fixed statistical objectives
- May not be relevant for users
- The length of the process for releasing ES may have a negative effect on timeliness
- Usability of privately held data (the forthcoming European statistical law will ease the access to privately held data)
- Need to consider trade-off between:
  - a) the reduction of data collection costs and burden on respondents  
*and*
  - b) large investments in terms of human resources, IT tools, organisational aspects, use of data sources held by private subjects,...



## Istat experience

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Istat first ES launch: 2018

No. of ES published: 20

No. of researchers involved: 75

No. of ES shifted to official statistics: 4

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### Most visited experimental statistics

- *Daily population for study and work reasons*: an experimental approach using administrative data
- *Use of Open Street Map to calculate indicators for road accidents*, a calculation of new indicators on road accidents
- *Social Mood on Economy Index*, a daily measure of the Italian sentiment on the economy based on X data
- *Municipal demographic projections*, a study of the probable future of a population in terms of total size and structural components
- *Municipality-tailored indicators*, a selection of indicators at a Municipality, Province and Region level from a multi-source system that uses experimental and other more consolidated sources



## ES quality assessment at Istat

- ES quality cannot be properly assessed based on the current ESS standards (Code of Practice)
- At the moment, when a new ES is submitted, the proposal must include some quality indicators (selected from the CoP ones) to be monitored over time
- Developing a quality framework to assess ES is a complex task as they are characterised by a wide heterogeneity
- In order to develop a standard ES quality framework, a research activity is ongoing, focusing, for the time being, on ES based on the use of Big Data (Trusted Smart Statistics)
- Having an ES quality framework is fundamental for their transition to official statistics



## Istat experience: experimental statistics shifted to official statistics

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- To become official, the experimental outputs have to meet some fixed requirements
  - Risk assessment with regard to possible overlapping of ES with official statistics (already published)
  - Relevance for users
  - Production process stability and sustainability
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- *Classification of Municipalities based on Italian ecoregions, a new classification according to ecoregions based on homogeneity with respect to climatic, biogeographical, physiographic and hydrographic factors*
- *Integrated economic and environmental accounts for tourism, statistics on environmental pressures related to tourism industries, obtained by integrating the Tourism and the Environmental Satellite Accounts*
- *Integration between data from register and sample surveys: enterprises classified by use of ICT and economic indicators, new indicators obtained by integrating register data on SBS with sample survey data*
- *Businesses behaviours and sustainable development, new indicators to analyse business characteristics in terms of environmental and social sustainability*



## Looking ahead... (1/2)

### NSIs' internal challenges

- reducing production costs
- improving timeliness
- assessing quality (quality framework)

### External inputs and drivers

- taking into account users' information need as a driver to produce new ES
- considering users' feedback to improve already published ES and to shift them to official statistics
- easing access to privately held data (Amending Regulation 223/2009)
- strengthening collaboration with research institutions and Academia to further develop and improve ES





## Looking ahead... (2/2)

### Strengthening cooperation within the ESS

- need for (at least a minimum set of) standardised rules and procedures for producing ES:
  - definition
  - developing a shared quality framework for ES
  - exchanging best practices (production, management, dissemination,..) at ESS level
  - transition to official statistics
- ➔ possible Eurostat grants?
- promoting comparability among NSIs that produce ES on similar topics
- ESS refereeing process: gathering feedback on new experimental outputs from a dedicated ESS network, before its release to the public



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# Thank you

[arianna.carciotto@istat.it](mailto:arianna.carciotto@istat.it)

[luzi@istat.it](mailto:luzi@istat.it)



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