

Towards a base register of territorial units to improve quality and georeferencing of census data

**Meeting of the Group of Experts on Population and
Housing Censuses**

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Session D - Innovations in census methodology and
technology, and results of testing



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The innovation of the 2011 round

Use of administrative sources

- LAC (population registers of municipalities)
- SIM (integrated administrative data sources)

WEB

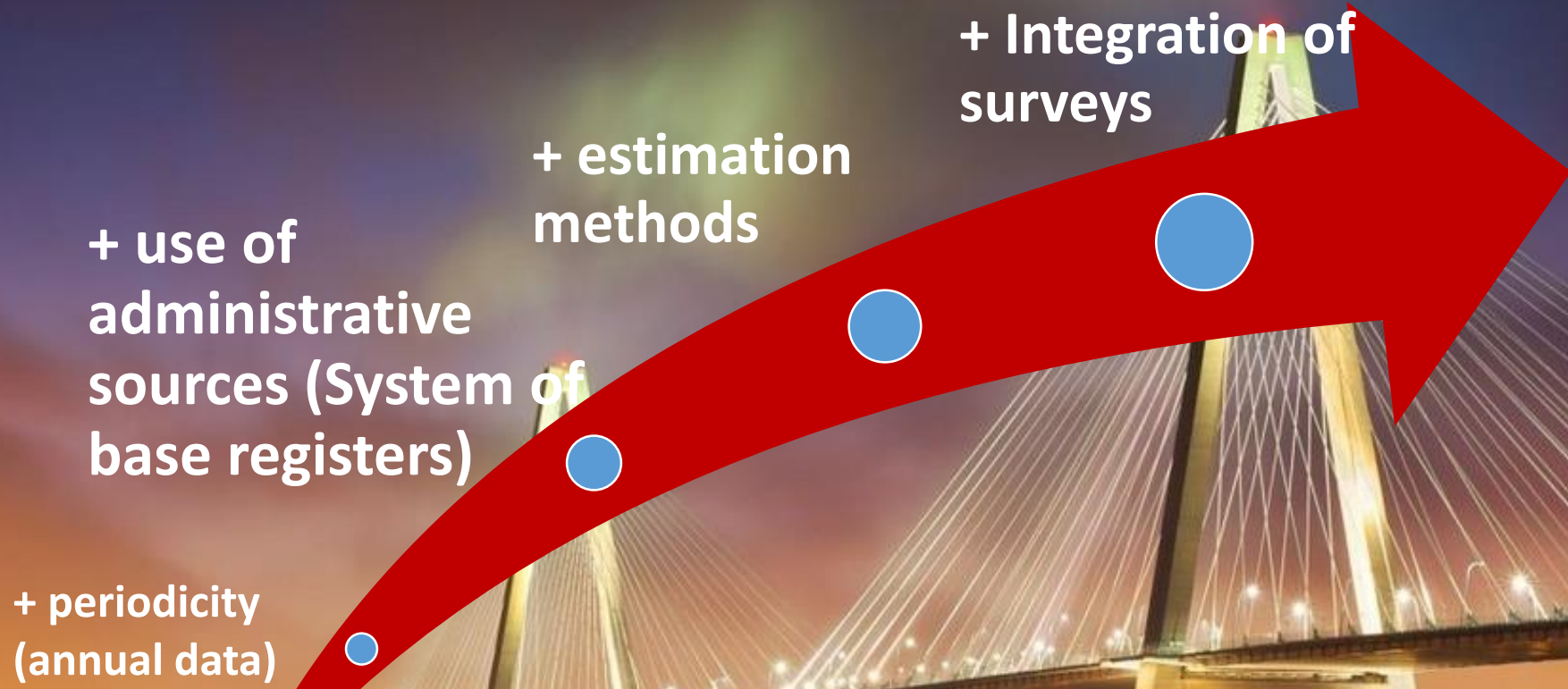
- 34% online response
- online system for management and monitoring

Territory

- Addresses (ANNCSU)
- Census Areas in big cities
- Linked Open Data

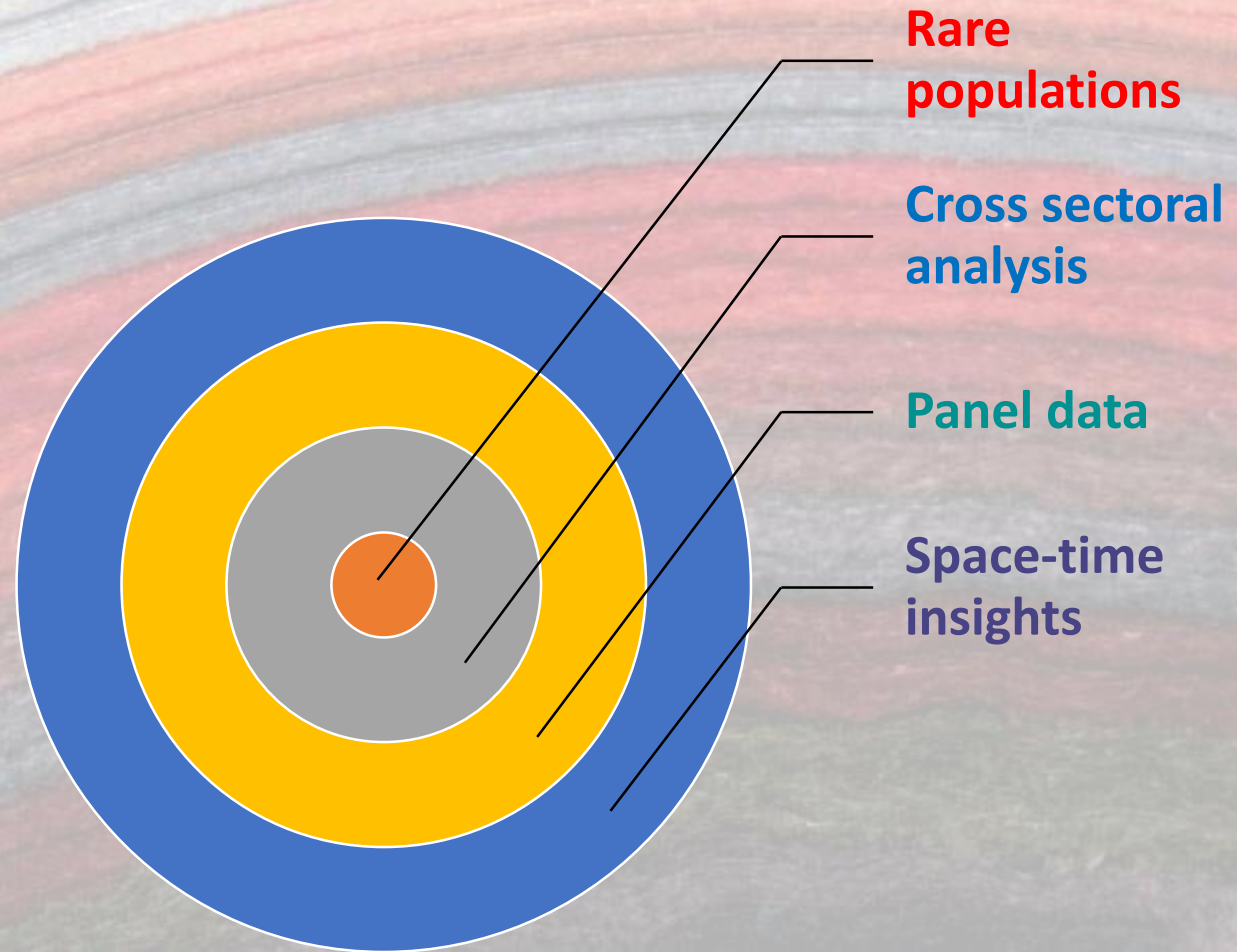
Sampling

- Short/Long forms
- PES / quality



2011.....as a bridge towards new challenges

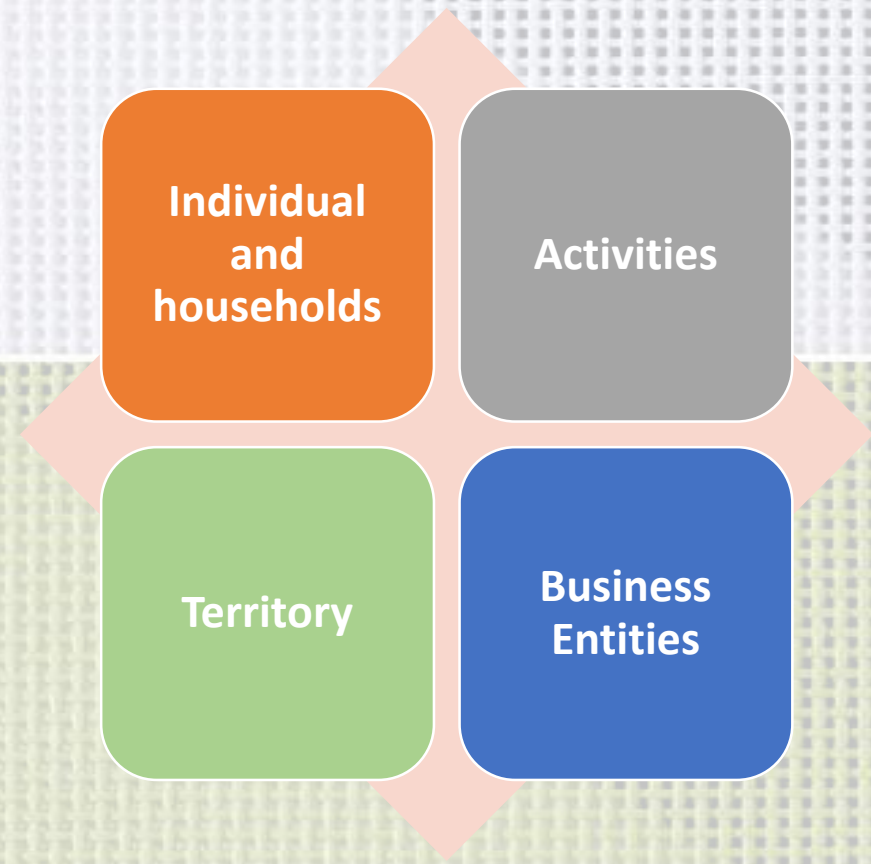
Increasing complexity to respond to the emerging statistical needs of users





“put together since from the micro-level information on the life paths, education, work, citizens,..., to build relations with the working environment, social and environmental context”

Istat Modernization



- A system of base registers interconnected at the level of elementary units by linking codes.
- Continuously updated by administrative sources and by statistical surveys.
- Check of quality by sample survey (integrated with all sample surveys).

Relevance of addresses

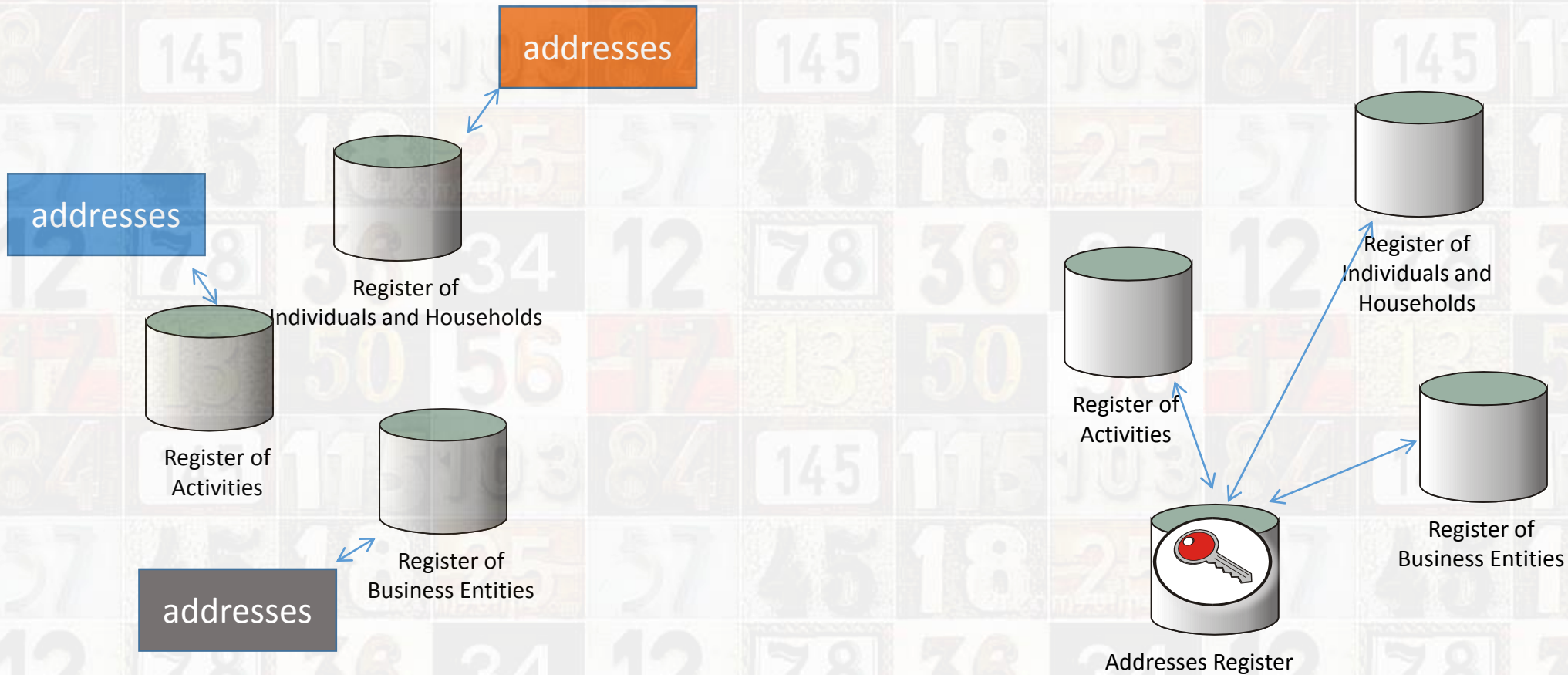
Addresses are a crucial information asset, embedded in huge amounts of public data

They are a key connector for linking registers and databases

They allow to locate statistical units

They can be used as sampling units in the check census coverage

Addresses: from disorder to a “unique key object”



Georeferenced addresses was strongly used in the aids for the central Italy earthquake operations

LOCIS - The base register of territorial and geographical units

It is one of the "pillars" of the system of registers. Geo-referencing of individuals, households, economic units is essential for most of the statistical activities

- Statistical processes
- Linkage of data from different sources
- Statistical outputs on small areas
- Reports and data analysis on small areas

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- An aerial photograph of a densely populated hillside city, likely in Latin America, showing numerous multi-story apartment buildings and houses built on a steep slope. The buildings are packed closely together, and the colors of the facades vary, including shades of yellow, white, and brown. The sky is overcast.
- **Buildings/dwelling registers**
 - **Linked to address registers**

Address register (ANNCSU)

As part of the activities of the 2011 Census of Population and Housing data, Istat asked municipalities to verify and validate the data to the factual situation existing.

This operation has already been completed in some 86% of Italian municipalities that have achieved an acceptable overall quality.

The first release of the address register will be ready in the next months.

A further medium-term goal is to associate a numerical code and their geographical coordinates at each address, in order to further increase the identifiability of the correct addresses.

Further challenges

Data in open and reusable formats (Linked Open Data) and data customizable services integrating the production of data with a production of services with high information content .

Focus more metadata that will be the guide to standardize processes and make statistics more easily traceable and accessible.

Facilitate and expand the access of researchers to the macro and micro-data files in privacy by improving the use of interoperability tools and remote access in line with the best international experiences

Future challenges

Foster
international
collaboration

Modernization
of statistical
processes