Modernisation in Istat: main achievements in a continuing evolution

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Challenges in the new eco-system of statistical information

- Measuring a more complex and diverse society

- Wealth of information, new unstructured sources

- Availability of new methodological and technological tools

- Crisis of traditional data collection systems

- More flexible, agile and cost efficient NSIs

- New competitors on the market

The outside world is changing rapidly

Istat's Modernisation Programme

Started in the second half of 2014
in accordance with:

- UNECE High-level Group
  on the Modernisation of Official Statistics
- European Statistical System commitment
  to Vision 2020

January, 2016: Official approval
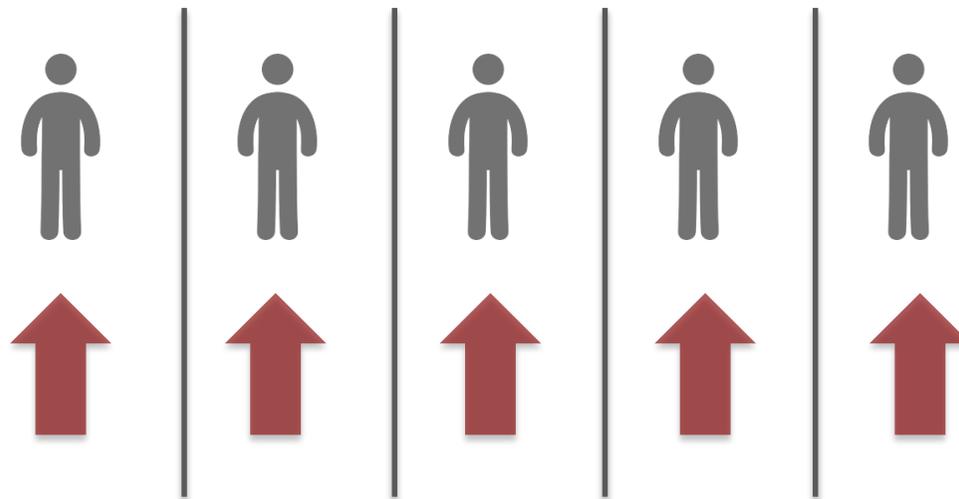
ENRICHED INFORMATION

INNOVATION

COST REDUCTION

HUMAN RESOURCES

EFFICIENCY

QUALITY

A deep review of the organizational structure

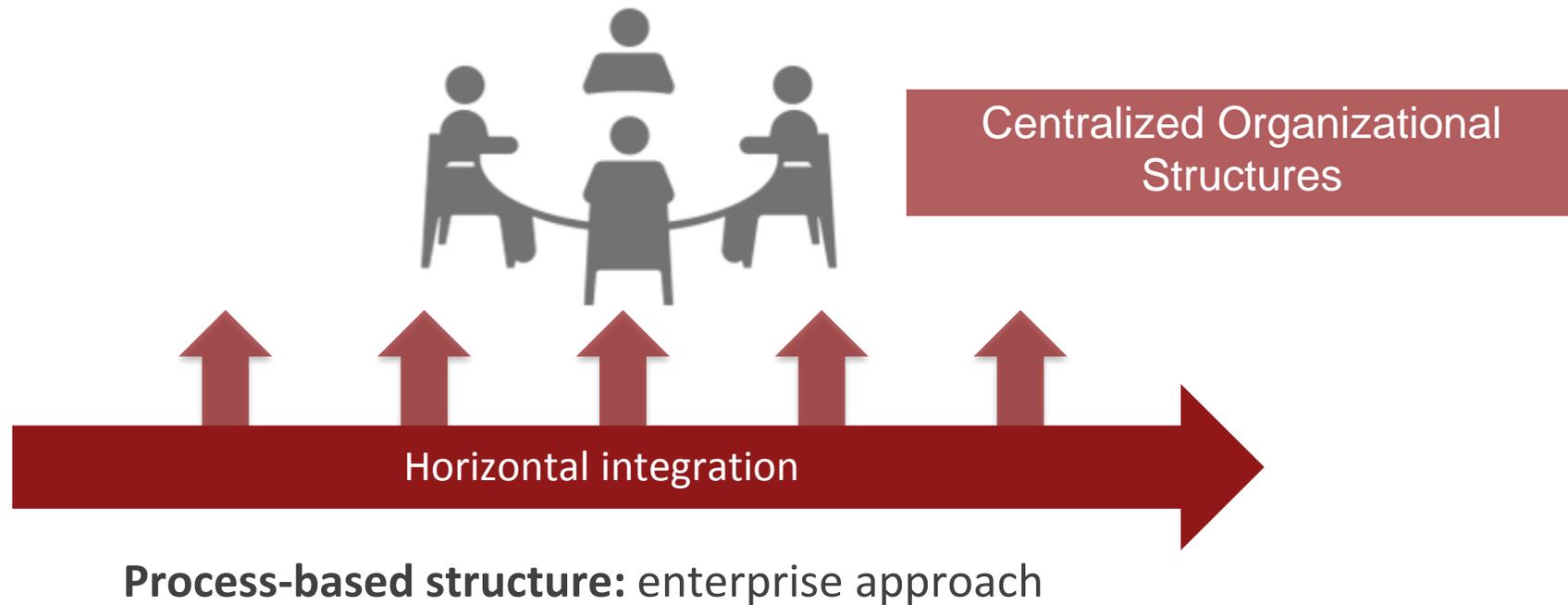From divisional to process-based structure
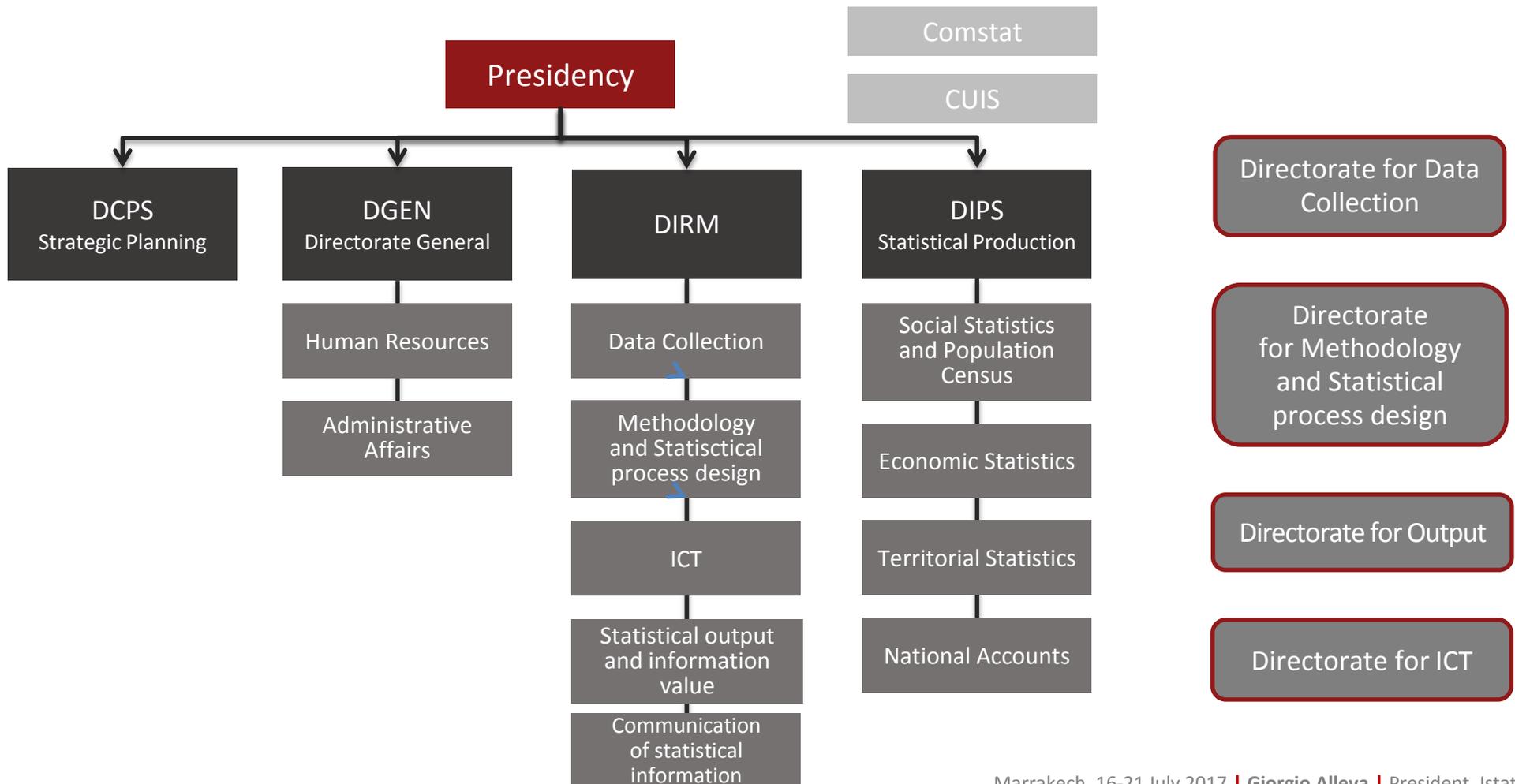
Divisional structure: silos «tied» to people

- DUPLICATED WORK AND INEFFICIENCIES
- WORK «TIED» TO SPECIFIC PERSONS
- BARRIERS

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A Process Oriented Approach

From divisional to process-based structure

Centralized Organizational Structures

Horizontal integration

Process-based structure: enterprise approach

Istat's New Organizational Structure

```
                                          Comstat
                    Presidency
                                          CUIS
```

```
DCPS              DGEN               DIRM              DIPS
Strategic         Directorate                         Statistical
Planning          General                             Production
```

- **DGEN**
  - Human Resources
  - Administrative Affairs

- **DIRM**
  - Data Collection
  - Methodology and Statisctical process design
  - ICT
  - Statistical output and information value
  - Communication of statistical information

- **DIPS**
  - Social Statistics and Population Census
  - Economic Statistics
  - Territorial Statistics
  - National Accounts

- Directorate for Data Collection
- Directorate for Methodology and Statistical process design
- Directorate for Output
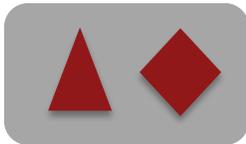- Directorate for ICT

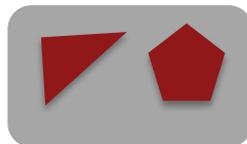# A review of the statistical production process
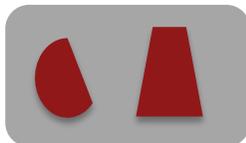
Process revision: main features

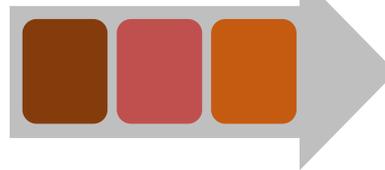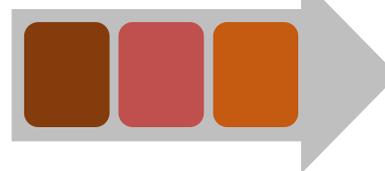**No process defined**

Survey 1

Survey 2
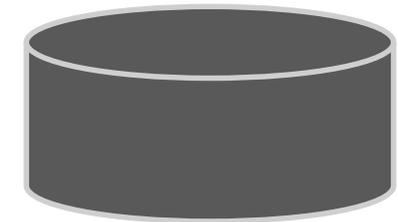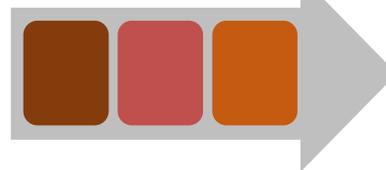
Survey 3

Defined process

Survey

Survey

Survey

Centralized assets

Integrated Business Statistics Framework

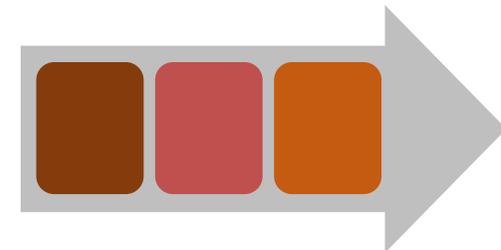**Standardization of methods and tools** for some phases of the statistical production process

Standardization of the workflow

Initial Focus:

- ○ **GSBPM:** process and analyse phases

- ○ **Subset of Business Statistics surveys**
  (around ten short term statistics)

CSPA (Common Statistical Production Architecture)
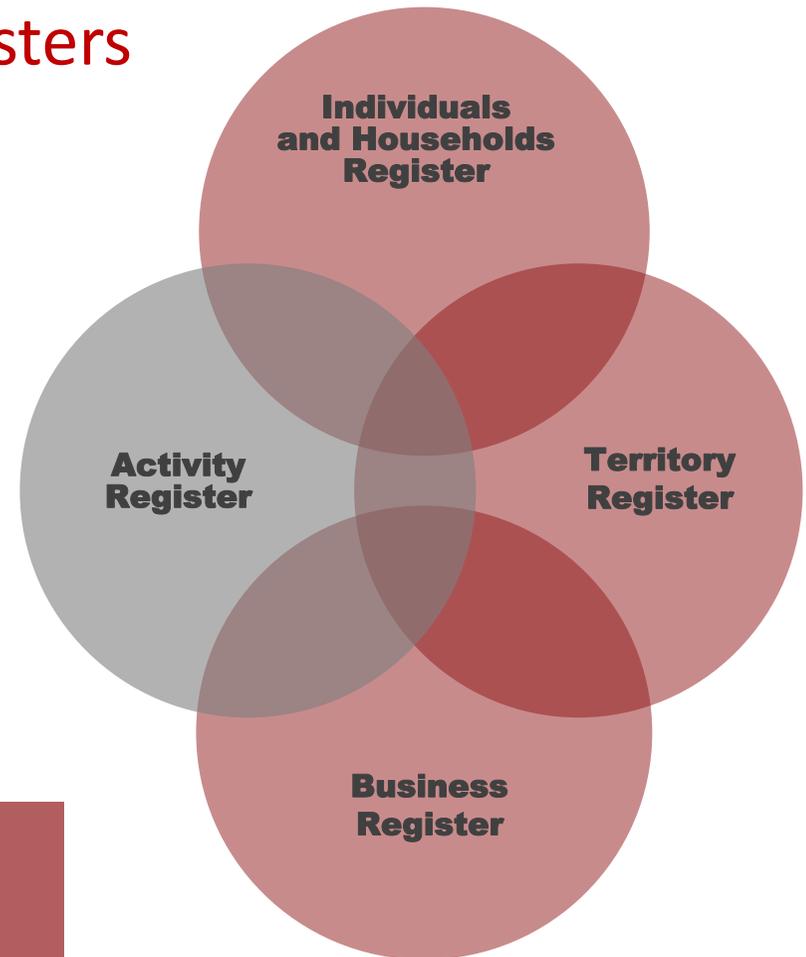
[TO-BE]
Business Statistics Integrated Process

[AS-IS]
Business Statistics surveys

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Integrated System of Statistical Registers

Single logical data asset resulting from the **integration** of survey data, administrative data and new sources

Consistency in the **identification** and **estimation** of units and variables for the system as a whole

A "**system**", rather than a set

To connect people, business, places and their relations

Individuals and Households Register

Territory Register

Activity Register

Business Register

New sources: Big Data

Opportunity to produce timely high-quality statistics with greater detail

Scanner data & web scraping

Web scraping & Text mining

Mobile phone data
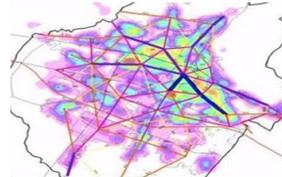
Sensors

Big Data: open issues

1| data access

2| quality

3| methodology

4| legal framework

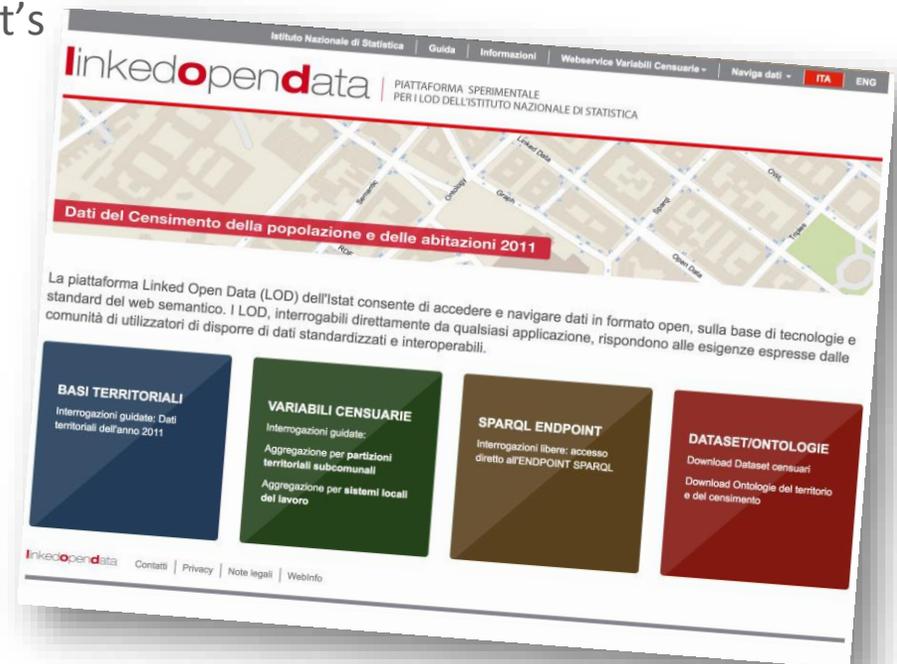**5|** skills and competencies

The Linked Open Data portal

Open data is a key enabler of data-driven innovation

The portal is the **single access point** to Istat's open data and part of the Italian national data cloud

Main features

- machine-to-machine data

- access at the finest granularity level

- flexible querying

- advanced navigation mechanisms

- direct access to data via Web Services

Conclusions. Key concepts

Modernisation to produce high quality data

A new organizational and production approach

Multiple use of data sources: integration

Improve data release for all users

Skills and competencies

Innovation and Research

Change driven culture