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SIOU – How to integrate statistical and geospatial data using Administrative Data on Construction Works

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SIOU

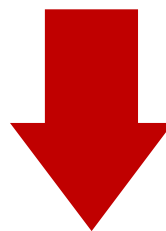## Indicators System of Urban Operations

- Based on administrative data from the (308) Portuguese Municipalities;

- Concerning the urban operations related with building permits and completed construction works;

- Compilation of statistical indicators defined by the EU regulation (Short-term statistics) – buildings and dwellings.
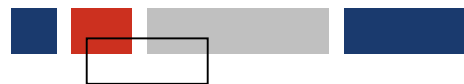
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SIOU

Indicators System of Urban Operations

■Mandatory exchange of data between the Municipalities and Statistics Portugal;

■Harmonization of statistical concepts and definitions with the technical concepts and definitions used by the Municipalities;

Specific Portuguese Law (governmental ordinance)

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SIOU – re-designed to include additional data

Re-design of the project (**January 2013**)

In terms of:

      - **C**ontents; **P**rocedures ; **F**unctionalities

Due to:

 - **Changes in the national legislation;**

 - **Changes in the statistical concepts and definitions;**

 - **New statistical needs.**

New statistical needs

- Harmonization of the address (EURADIN-European Addresses Infrastructure);

- Collection of geo-referenced information – new constructions and demolitions of buildings and dwellings;

- Collection of specific characteristics on dwellings – to identify in a proper way the correct address of all new dwellings.

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National Dwellings Register

- Register including all the buildings and dwellings;

- Based on geo-referenced data from 2011 Census (**stock**);

- Need for regular update with new constructions and demolitions;

- SIOU: main data source for regular update (**flow**).

National Dwellings Register

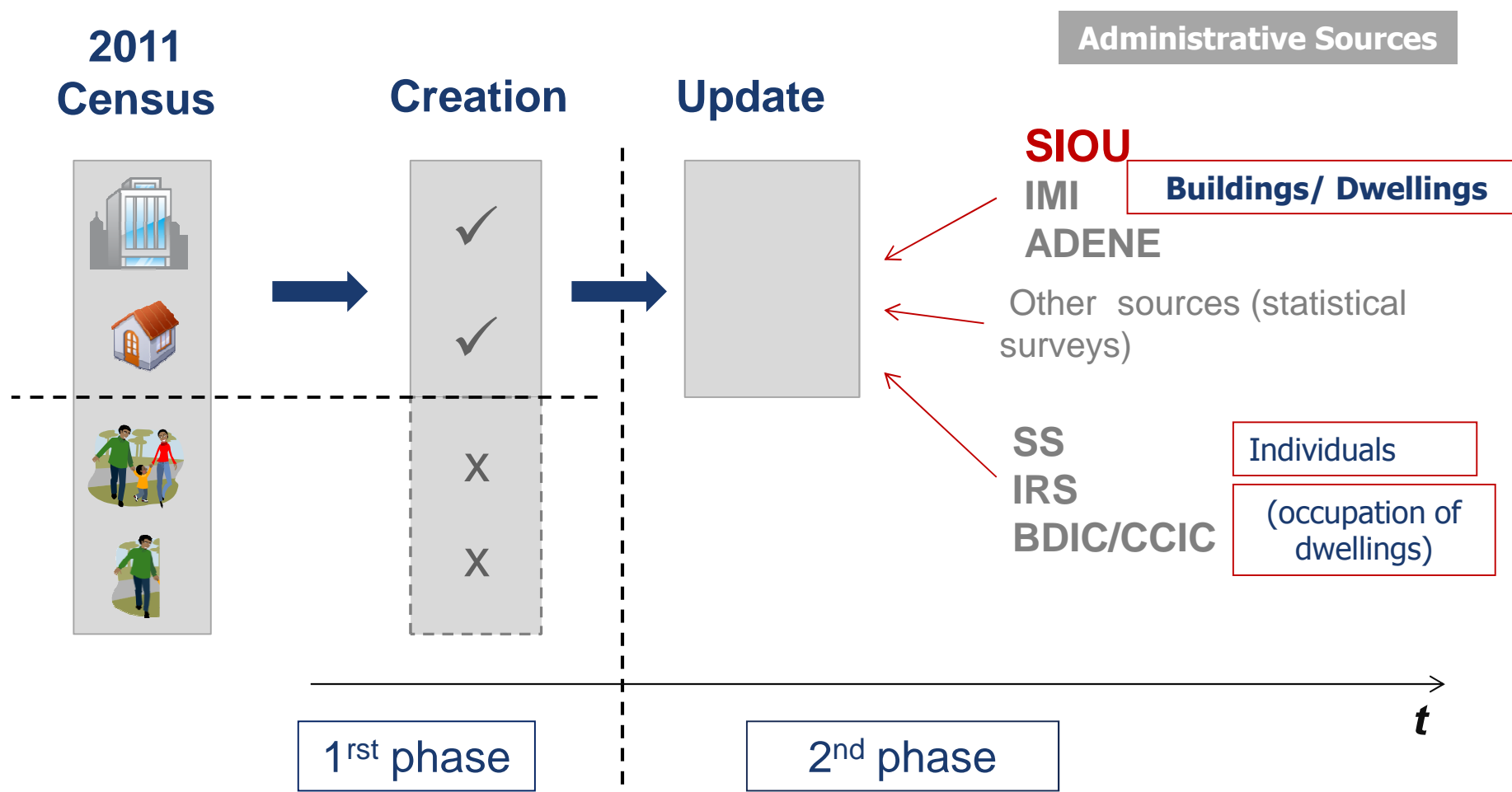Main purpose of the National Dwellings Register:

Create a population for selection of samples in household surveys

Need for a permanent update of data is crucial for the success (SIOU)

Conceptual Model for National Dwellings Register

Administrative Sources

2011 Census	Creation	Update	

SIOU
IMI
ADENE

Buildings/ Dwellings

Other sources (statistical surveys)

SS
IRS
BDIC/CCIC

Individuals

(occupation of dwellings)

t

1^{rst} phase

2nd phase

Geospatial component of the National Dwellings Register

- **European GRID 1x1 Km** (Grid_ETRS89_LAEA_1K)

developed by EUROSTAT for the European Union territory

- **Buildings**

   3 547 318 buildings – identified and geo-referenced during

   2011 Census

Geospatial component of the National Dwellings Register

GRID

European GRID

GRID (example for Faial island – Azores)

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Buildings

Geospatial component of the National Dwellings Register

Geospatial component of the National Dwellings Register

How to use SIOU (flow) data to update the geospatial component of the National Dwellings Register?

An example:

Geospatial component of the National Dwellings Register

Using SIOU data to update stock data on buildings from 2011 Census:

District: **Porto**

Municipality: **Amarante**

Completed buildings: **2011, 2012, 2013**

Building permits: **2013**

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SIOU

Identify

Identify from: GEO_Q4_AMARANTE

Location: 5.481,964 183.021,315 Meters

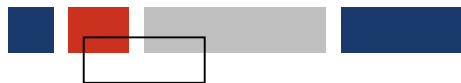| Field	Value
Distrito	13
Designação de Distrito	Porto
Município	1301
Designação de Município	Amarante
Freguesia	130148
Designação de Freguesia	União das freguesias de Vila Garcia, Aboim e Chapa
Área Construção Habitação	116
Nº de Fogos	1
Nº de Pisos Acima da Cota Soleira	1
Nº de Divisões	4

Identified 1 feature

☐ BGRI2011

☐ Limite Administrativo de Município

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Conclusions

▪It is possible to use administrative data on construction works to update the National Dwellings Register (NDR);

▪Changes performed on SIOU to allow its use to update NDR were based on geo-referenced data already available in the Municipalities;

▪Complete update, based on complete data from all the municipalities on a monthly basis;

▪Share of data between Statistics Portugal and the Municipalities (both ways): an opportunity for both entities (protocols for cooperation were established).

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THANK YOU!

QUESTIONS?

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