

# Merging statistics and geospatial information – Examples from the EU and the EC

Figure 8.1: The most densely populated places in the EU, 2011 <sup>(1)</sup>  
 (inhabitants/km<sup>2</sup>)

Barcelona



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Barcelona



<sup>(1)</sup> The maps show the position of the three most densely populated 1 km<sup>2</sup> grid cells in the EU. France: 2010.

Source: Eurostat, GEOSTAT Population Grid 2011 (<http://ec.europa.eu/eurostat/web/guest/geodata/reference-data/population-distribution-demography>)

# What is Eurostat?



the European Union  
provider of high

quality

the European

statistical

institute

with

Statistical Institutes from all  
EU Countries - based in Luxembourg  
with their own staff



# Responsibilities of Eurostat

- **Collect data from NSIs**
- **Harmonise methods, definitions & classifications**
- **Compile European aggregates – EU & Euro area**
- **Disseminate statistics**

## What is GISCO? - triple role

*"GISCO is a permanent service of Eurostat that answers the needs of Eurostat and the European Commission for geographical information at the level of the European Union (EU), its Member States and regions."*

- Service provider for Eurostat
- Service provider for the European Commission (and the EU)
- Coordination and partnership with Member States

## **Service provider for the Commission/EU**

- Chair of two coordination committees (technical and strategic) – the COGI
- Provision of corporate data and services

# The Commission Interservice Group on Geographic Information COGI

- Ensure consistent and effective use of GI across all services
- Coordination of data acquisition and creation activities
- Coordination of the EC GIS software portfolio
- Coordination of the INSPIRE implementation within the Commission
- Ensure sharing of information and expertise on GI within the Commission

## Mapping of disputed territories

Created by Ekkehard PETRI, last modified just a moment ago

There are numerous **disputed territories** around the world and GISCO does not engage in providing an official position on most of them. The purpose of this document is to summarise the opinions of the European Commission on how to show politically sensitive territories on a map that are **particularly relevant for the EU or because they will often show up on maps depicting the EU**. Currently the following countries/ territories are concerned: Cyprus, the former Yugoslav Republic of Macedonia, India and Pakistan (Kashmir), Serbia and Kosovo, Taiwan, Western Sahara, South Sudan (Abyei area), Palestine, Suriname.

As said this list is by no means complete. The GISCO Countries - [CNTR\_20XX] dataset can be considered authoritative only for the EU28 and the UK.

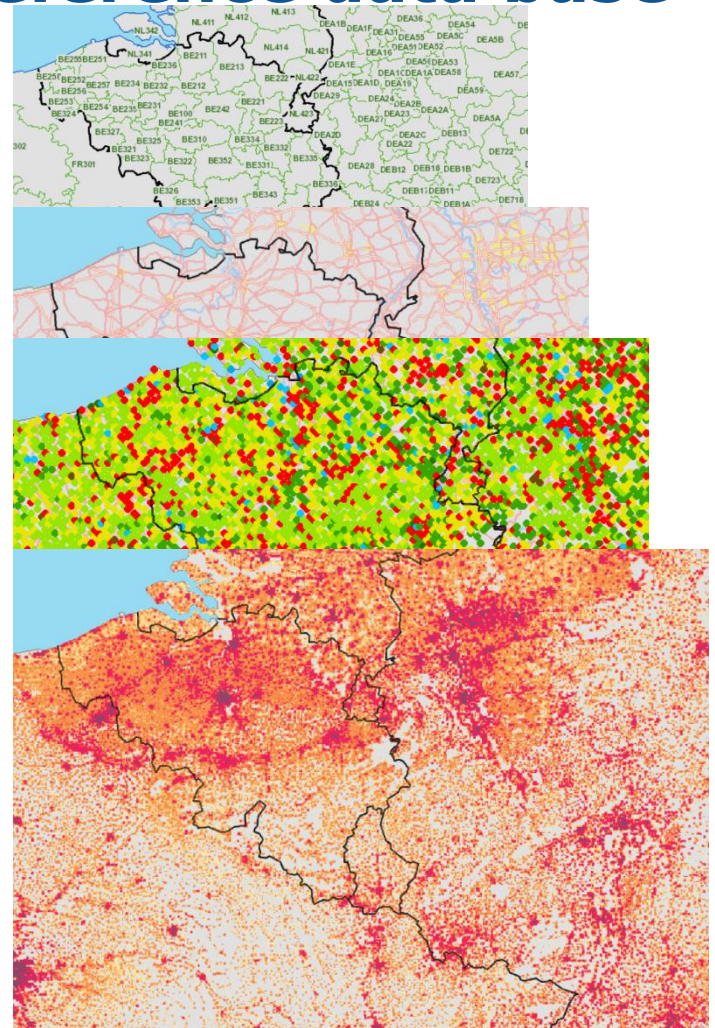
The Countries - [CNTR\_20XX] dataset outside Europe is based on UN GAUL (Global Administrative Unit Layers). The boundaries depicted in the dataset reflect the UN position except for the examples above. However, GAUL does not have an official authoritative status either endorsed by the UN or the EU.

In any case before making a map of other than the EU28 and EFTA countries the cartographer must carefully and actively look for the disputed territories on the map extent, for instance by using the SVRG\_UN = "sovereignty unsettled" attribute of the GISCO Countries - [CNTR\_20XX] dataset.

# Provision of corporate data and services - the GISCO geographical reference data base

Mid-scale data on:

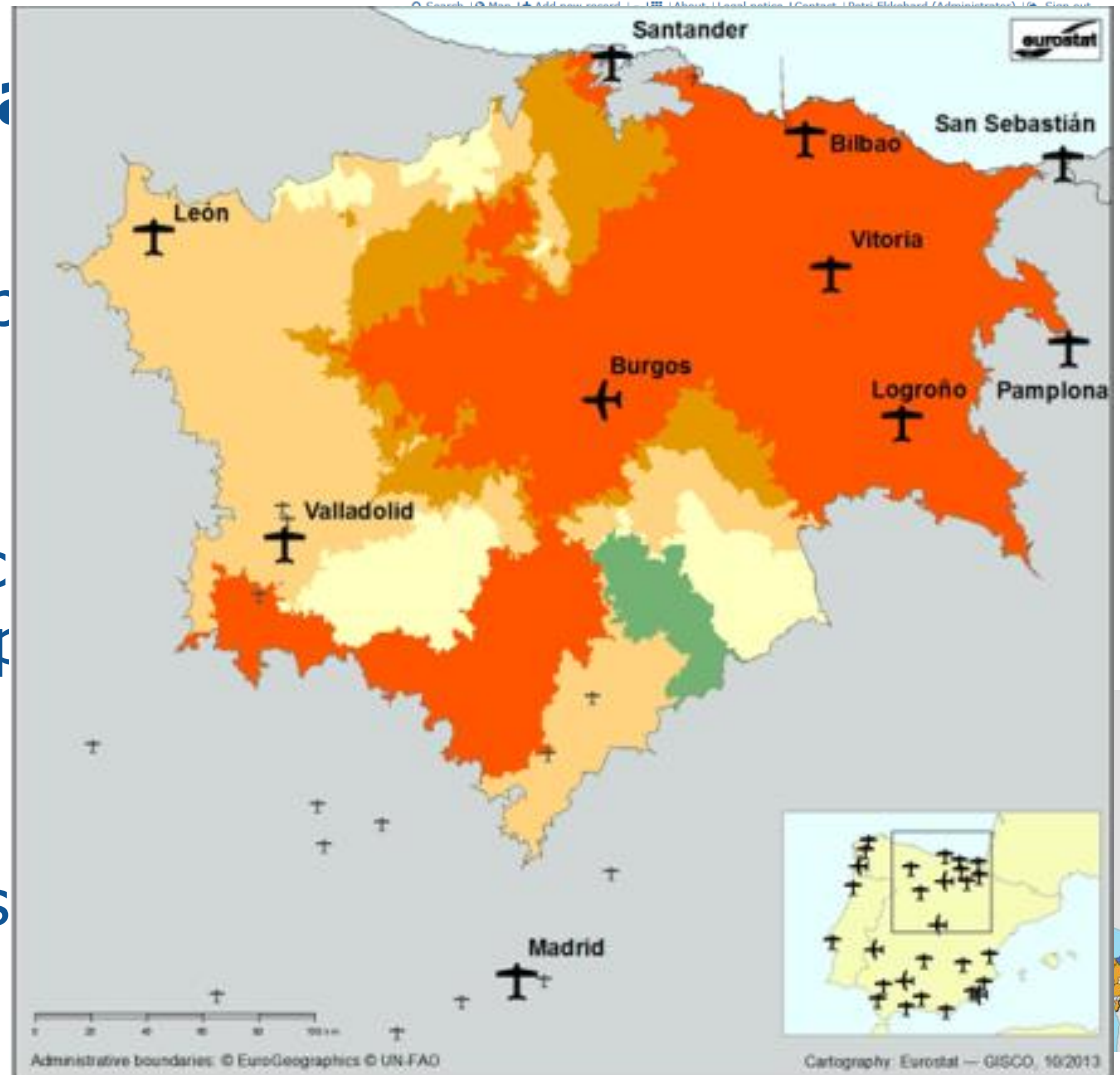
- Administrative and statistical areas
  - Hydrography and transport
  - Land cover/land use
  - Population distribution
- > Notion of reference and official  
-> should support all possible use cases (mapping and analysis)





# GISCO tools & services

- Map making (paper & online)
- Internet atlases
- Geospatial services (background maps, geocoding, ...)
- Spatial analysis
- INSPIRE services
- EC GeoPortal





# Examples : Internal Geoportal of the EC – Population Grid

European Commission  
eurostat Statistical Atlas - Eurostat regional yearbook 2013

Geoportals of the European Commission

Get started  
Search over 1358 data sets  
Search ...

Browse by **INSPIRE** themes

- Elevation 46
- Statistical units 21
- Land use 325

1000 km 1000 mi

Table of Contents

- Background maps 1 layer(s)
- Economy and finance
- Population and social conditions 1 layer(s)
  - Chapter 2: Population 1 layer(s)
    - 2.1 Population density
    - 2.2 Population change
    - 2.3 Natural population change
    - 2.4 Net migration
    - 2.5 Total fertility rate
    - 2.6 Life expectancy Males
    - 2.7 Life expectancy Females
  - Chapter 3: Health
  - Chapter 4: Education
  - Chapter 5: Labour market
- Industry, trade and services
- Agriculture and fisheries
- Transport
- Science and technology
- General and regional statistics
- Names and codes

Legend

2.1 Population density  
Population density, by NUTS 3 regions, 2011 (inhabitants per km<sup>2</sup>) (\*)

- < 50
- 50 - 100
- 100 - 135
- 135 - 170

# Merging Statistics and Geospatial Information - Background

*..progress towards an integrated information system combining statistical and geospatial information system for policy makers, researchers, spatial planners, and other users of public, authoritative statistical and geospatial data.*

*.. in cooperation with NSI we operate the action of the ESS "Merging Statistics and Geospatial Information"*

*Time Frame: since 2012 .....*

# Merging Statistics and Geospatial Information - Objectives

*Sharing knowledge developed in the NSI towards the wider community*

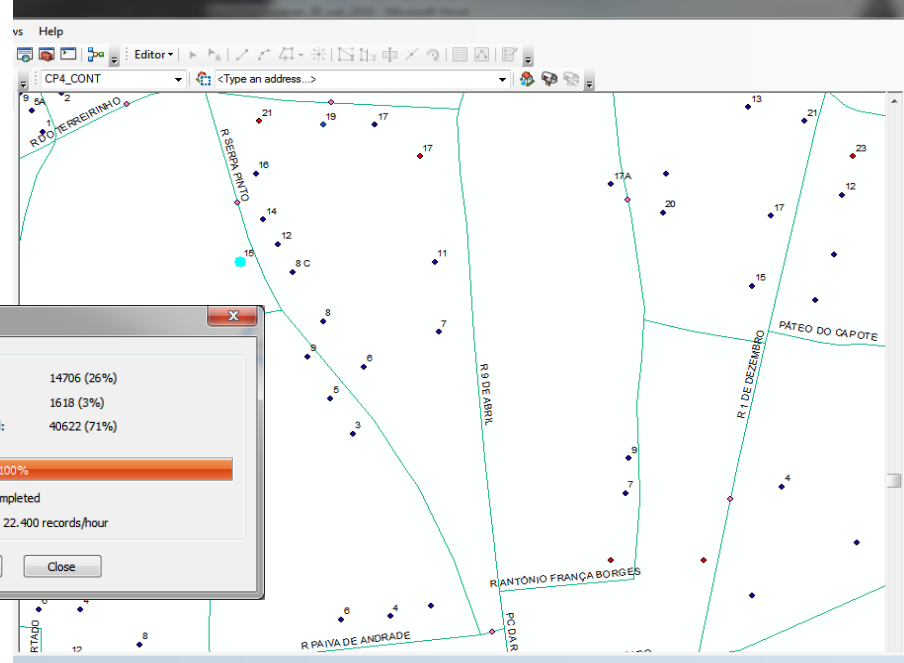
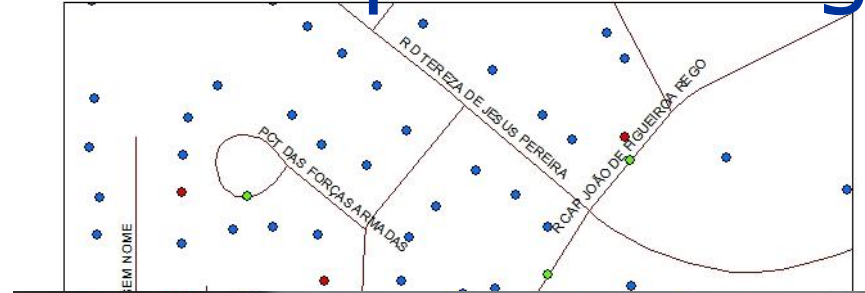
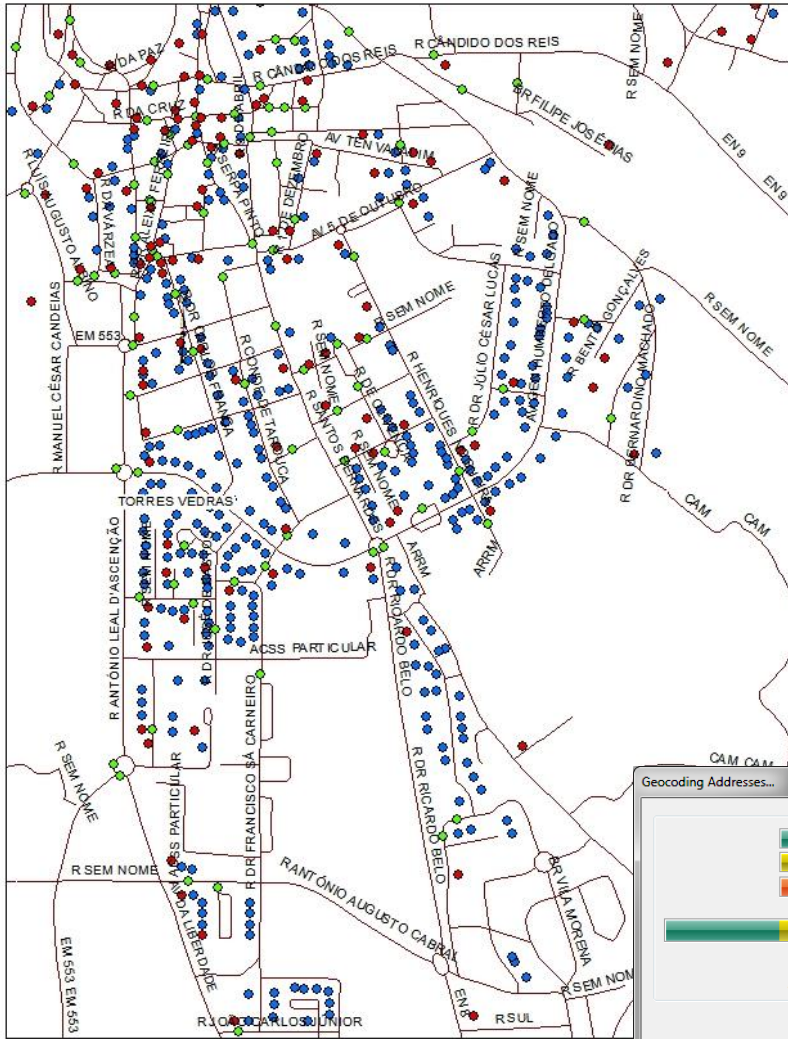
*Provide overview of implementation of GI together with statistical application*

*Identify a set of issues for further guidance for future developments*

*Lots of questions/Discussion/ follow up actions*



# Methodology BR Geo processing

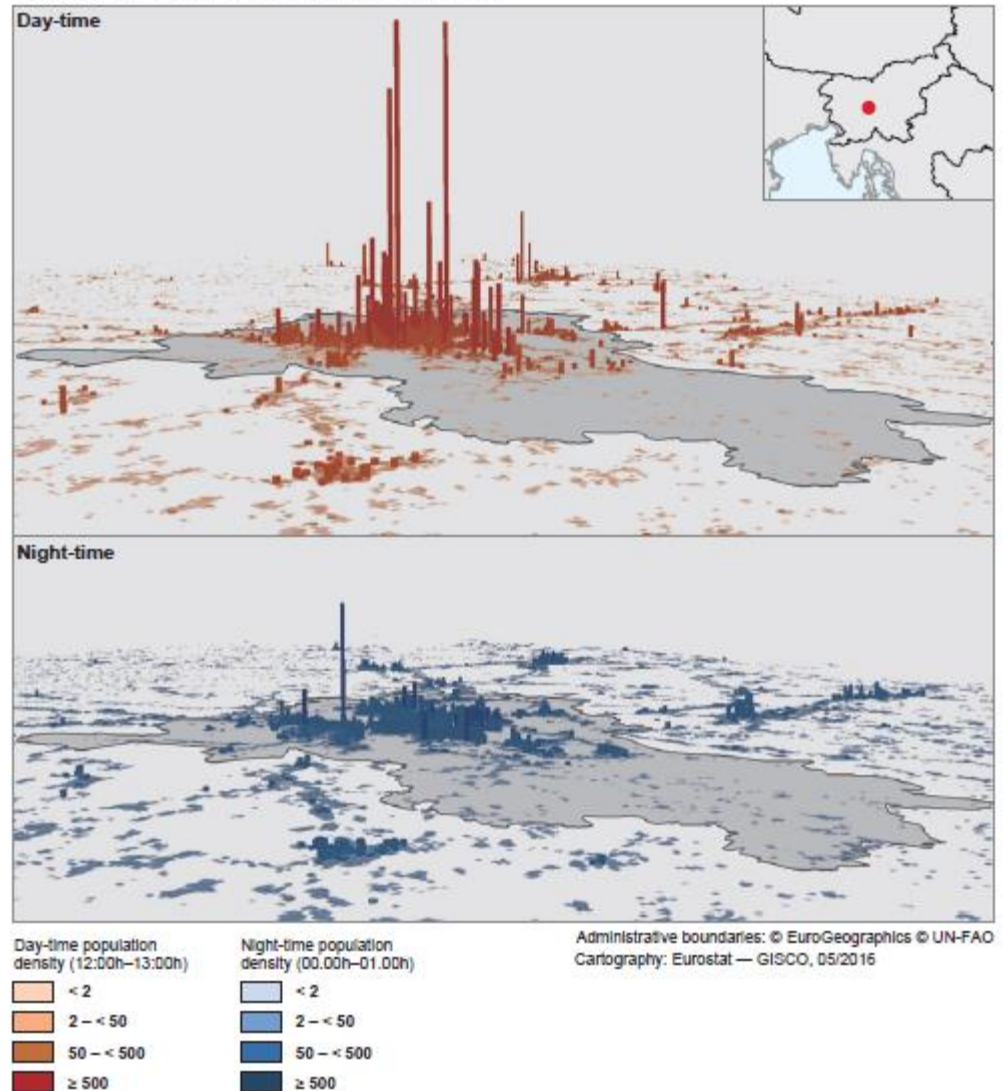


Legend

- Locator\_MORADA\_CP7
- locator\_BSA
- Locator\_CP7
- BSA\_OESTE
- CAOP13MN\_CONT

# Mobile Phone in Slovenia

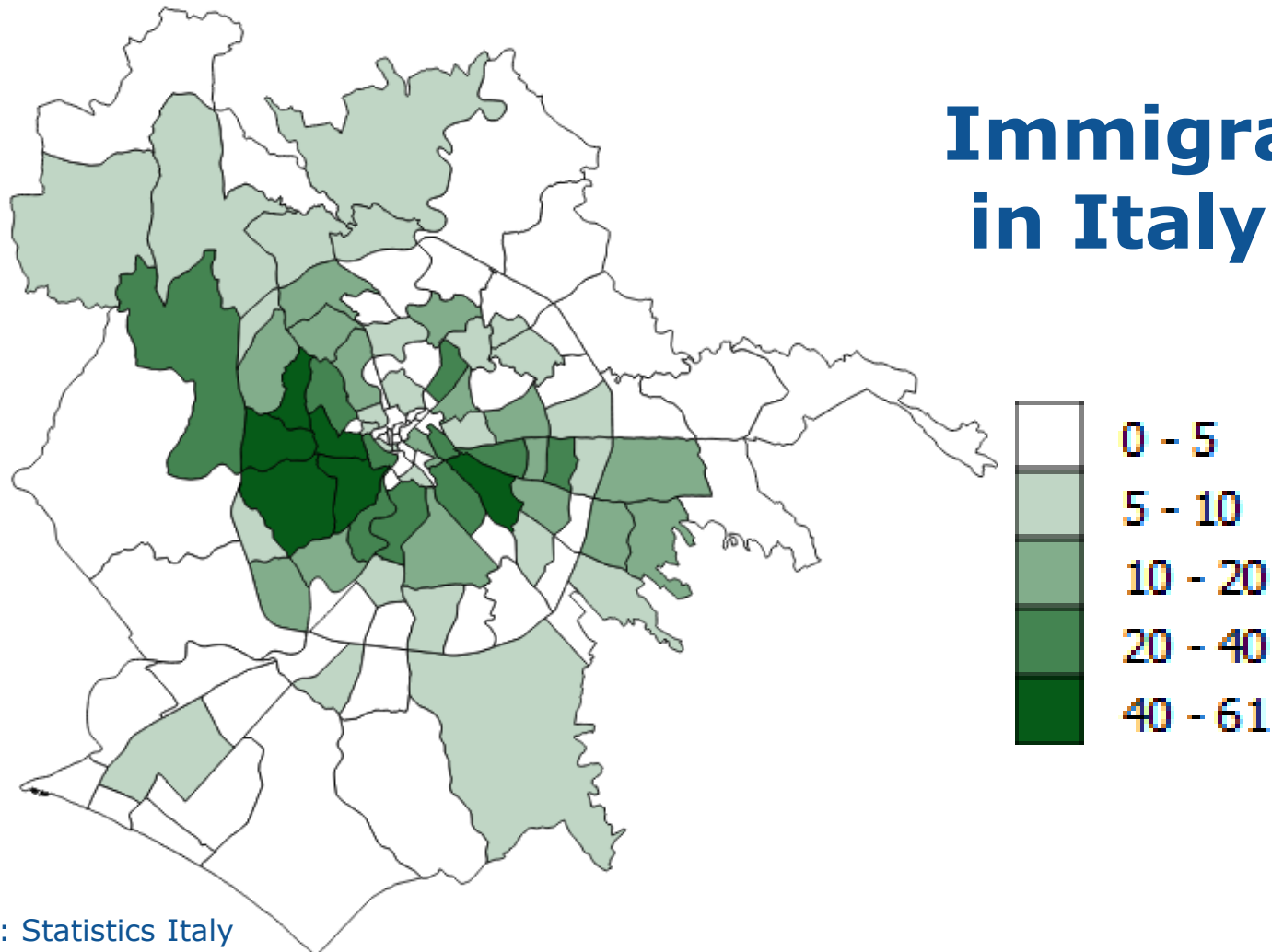
**Map 9.2: Day-time and night-time population density, Ljubljana, 2014 (\*)**  
(population density for grid cells 100x100 metres)



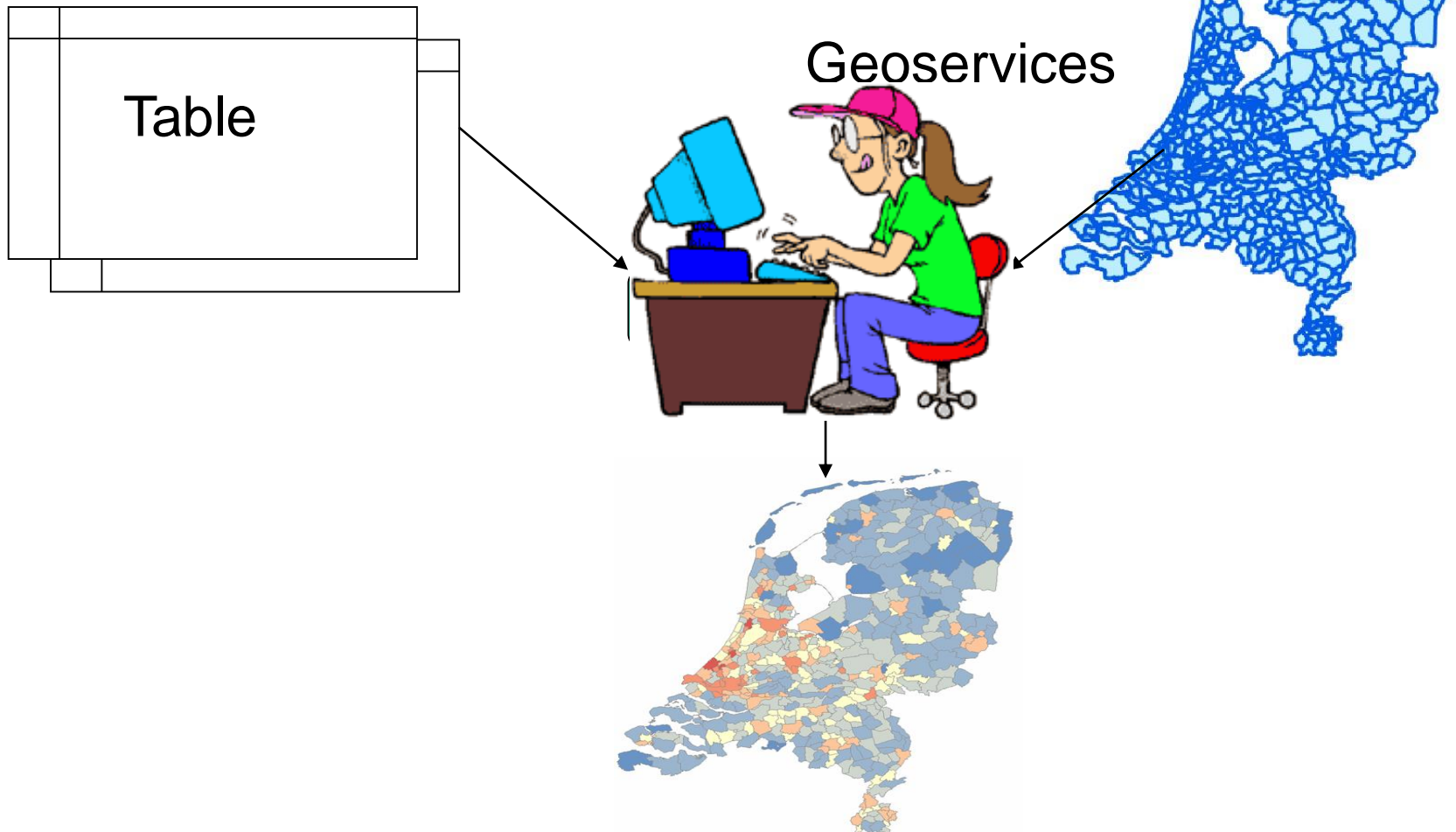
(\*) Experimental statistics on night-time and day-time population density based on administrative data calibrated by the hourly patterns observed in mobile phone network data. Mobile data analysis made use of signals transmitted between mobile devices and transmitter stations of the second largest Slovene mobile provider for the period 1 May–31 October 2014.

Source: Statistical Office of the Republic of Slovenia

## Rome, 2012 – arrivals from India

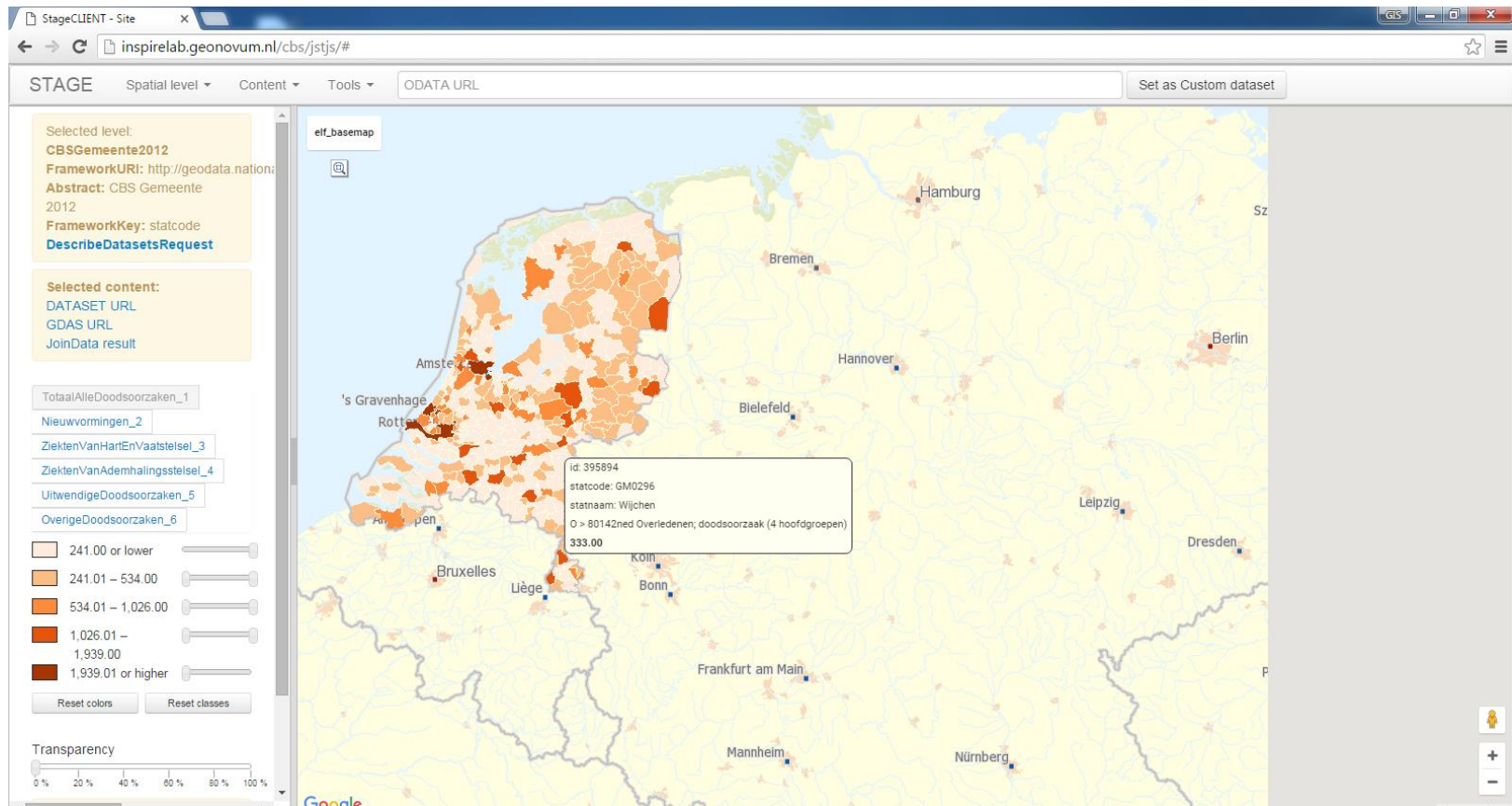


# OGC-TJS in the NL/SI/FI

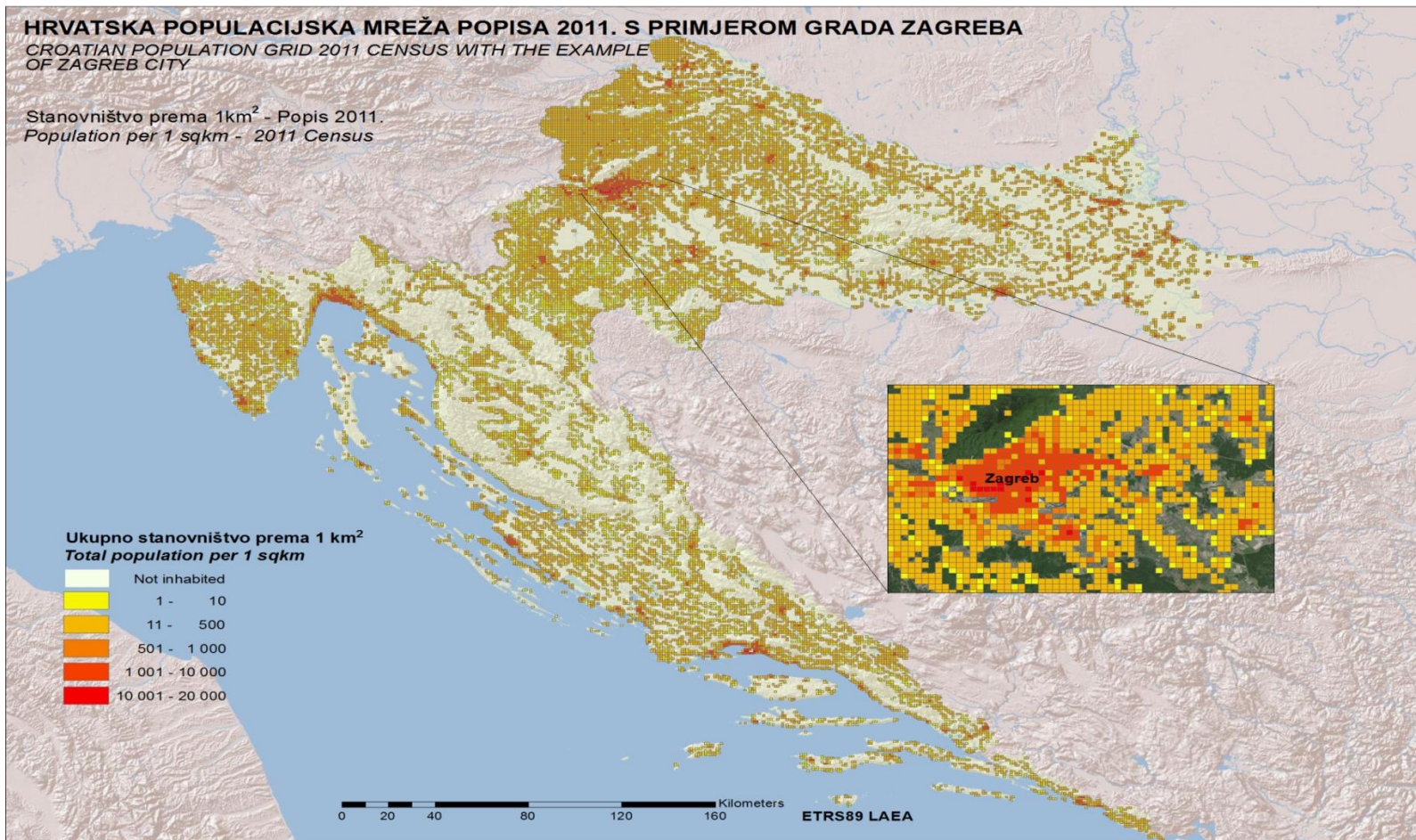




# OGC-TJS in the NL/SI/FI



# CROATIAN POPULATION GRID 2011





# The EFGS 2016 Paris Conference – 15.-17.11.2016



## Wrap up

- GIS and Statistics are better than complementary
- GISCO coordinating geospatial information use within the European Commission, contact point for other EU institutions and bodies regarding geospatial information, coordinator of geospatial information for statistics within the EU
- Frameworks: INSPIRE, statistics and SDGs, UN-GGIM - Priority of geo-enable socio-economic-environmental data

Vision without action  
is a daydream.  
Action without vision  
is a nightmare.

Lars Henrik Backer