



The updated Degree of Urbanisation and its impact on the City list/layer

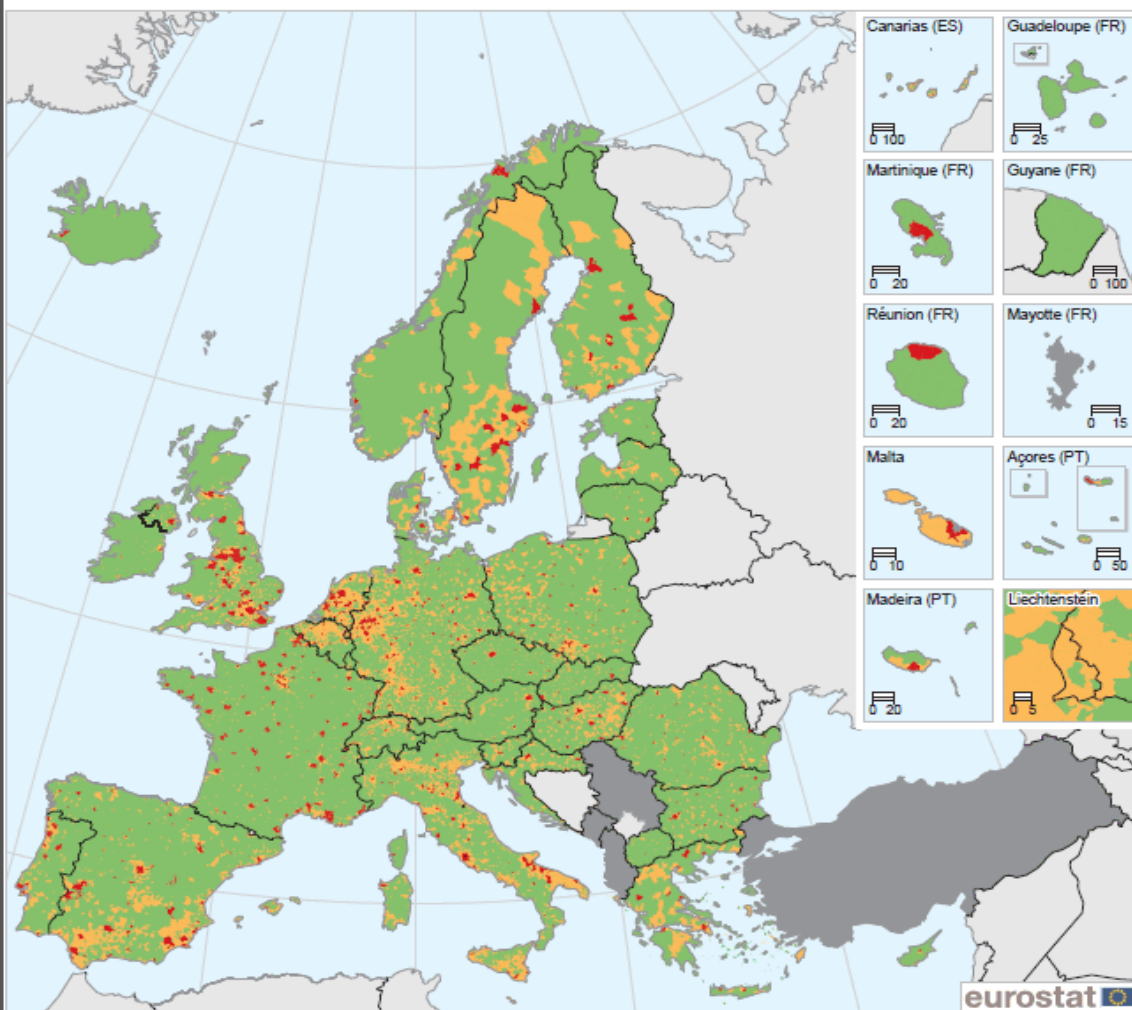
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Eurostat Unit E4

NUAC meeting
10/05/2016, Brussels

Content

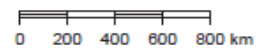
1. The purpose of the update and related methodological issues
2. The working process, rules and examples for ad-hoc changes
3. Results of the 2016 update

The update of the Degree of Urbanisation



- Cities / densely populated areas**
(≥ 50 % of the population lives in high-density clusters)
- Towns and suburbs / intermediate urbanised areas**
(< 50 % of the population lives in rural grid cells and < 50 % of the population lives in high-density clusters)
- Rural areas / thinly populated areas**
(> 50 % of the population lives in rural grid cells)
- Data not available**

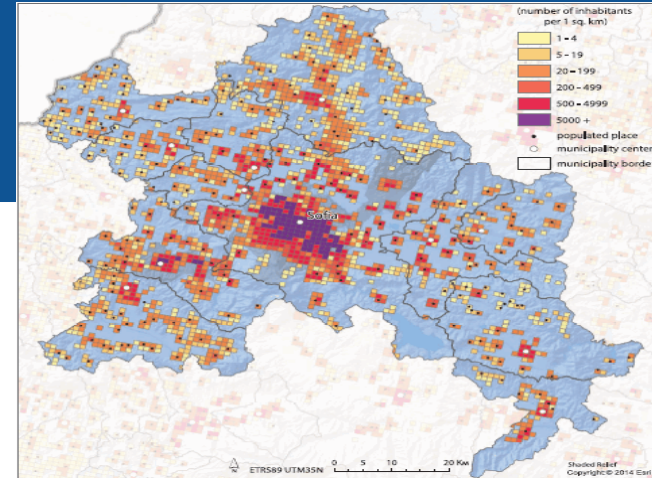
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Cartography: Eurostat — GISCO, 03/2016



Based on the 2011 population grid and 2014 LAU boundaries (EBM 9)

The methodology, initially developed by DG REGIO, has not changed

(*) Based on population grid from 2011 and LAU 2014. Denmark, Greece and Malta: local administrative units level 1 (LAU1).



Core value statements

- The classification must describe the reality taking into account the changes in the grid population
- A perfect match between DEGURBA and the City list is needed
- Balance between the strict application of the harmonised methodology and a stable city list
- Validation by the NSIs needed

Methodological issues

- European grid vs National grid
- Different LAU boundaries geometries result in differences in Eurostat and NSI classifications
- LAUs without a raster equivalent
- Border effects

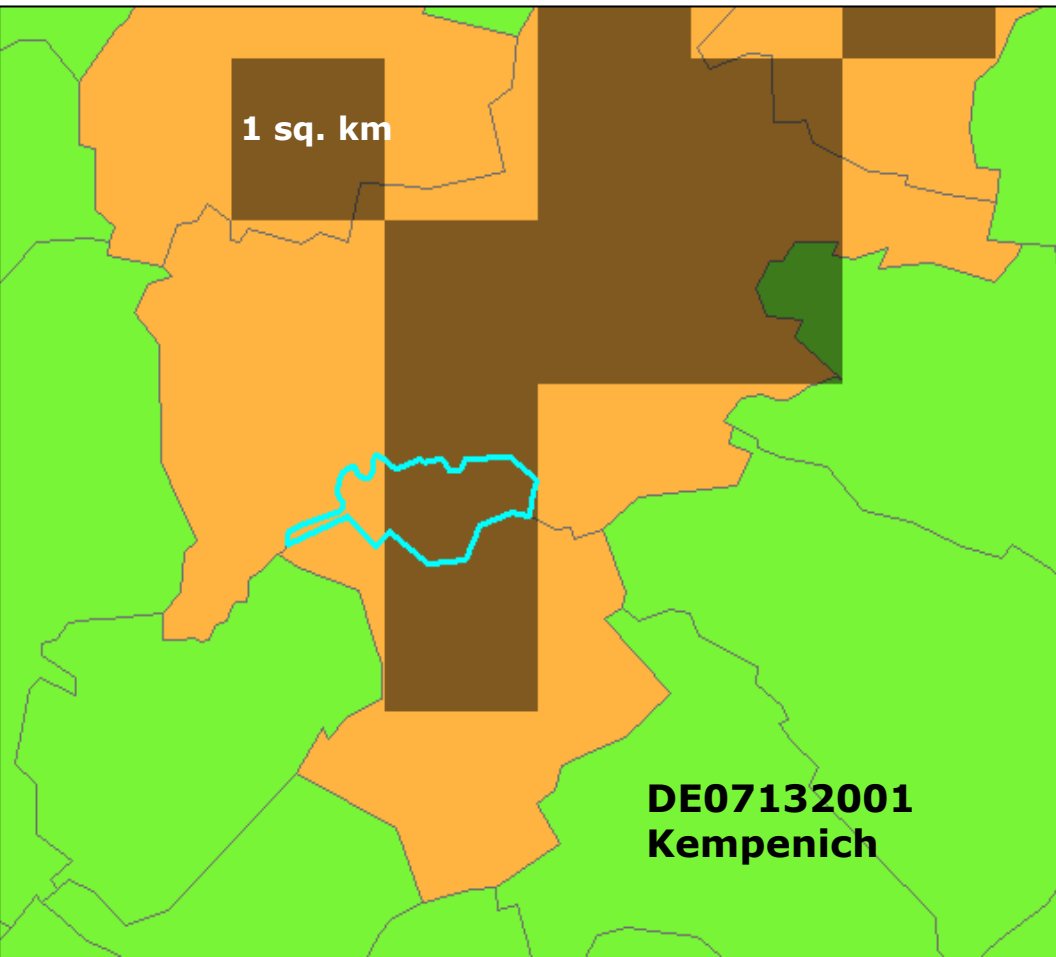
Steps of the update based purely on the grid population distribution changes (1)

- Identification of rural grid cells and urban clusters to define rural LAU-2s
 - **Urban clusters:**
Clusters of contiguous grid cells of 1 km² with a density of at least 300 inhabitants per km² and a minimum population of 5 000
 - **Rural grid cells** are grid cells outside urban clusters
 - **A rural LAU-2** has 50 % of its population living in rural grid cells.

Steps of the update based purely on the grid population distribution changes (2)

- Identification of high density clusters to distinguish between cities and towns and suburbs
 - **High-density cluster** is composed by contiguous grid cells of 1 sq. km with a density of at least 1 500 inhabitants per sq. km and a minimum population of 50 000
 - **City** is a LAU-2 where more than 50 % of the population live in a high density cluster
 - **Towns and suburbs** are the remaining LAU-2s

Refinement procedures in parallel with consultations with NSIs (1)



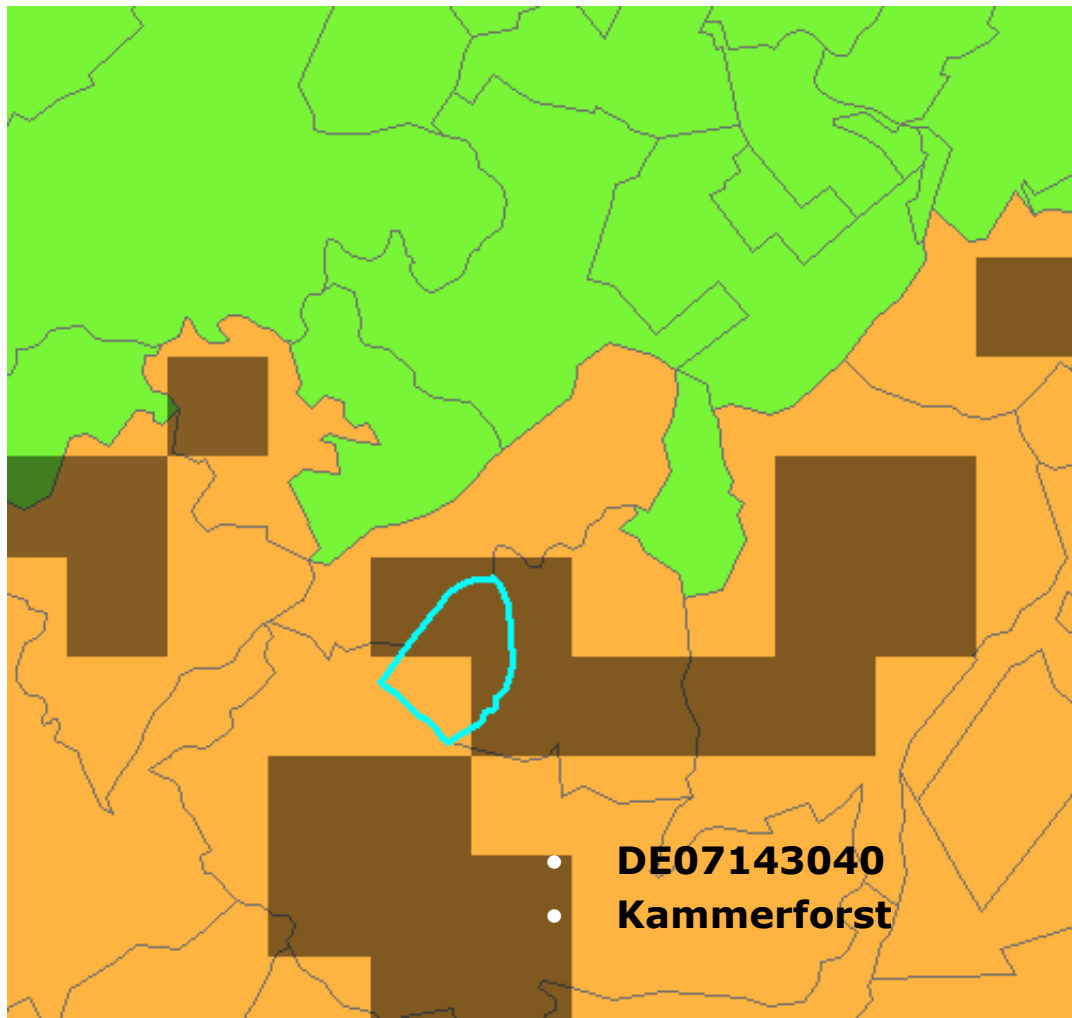
LAUs without raster equivalent:
classified according to the share of area in rural grid cells and high-density clusters

- City if LAU2 area inside HDC > 50 % of the LAU2's area
- **Towns and suburbs if LAU2 area inside UC > 50 % of the LAU2's area**
- Rural area if none of the precedent rule applies

Refinement procedures in parallel with consultations with NSIs (2)

- **Border effects:**
 - If a LAU-2 is classified as rural, its total area $< 5 \text{ km}^2$ and its area inside UC and/or HDC $> 30\%$; it can be reclassified as following:
 - City if LAU-2 area inside HDC $> 50\%$ of the LAU2's area
 - Town and suburb if LAU2 area inside UC $> 50\%$ of the LAU2's area
 - If a LAU2 is classified as "Densely populated area" or "Intermediate", its area inside UC or HDC $< 10\%$ and its population < 5000 inhabitants; it should be reclassified as "Thinly populated area"

Example for border effect



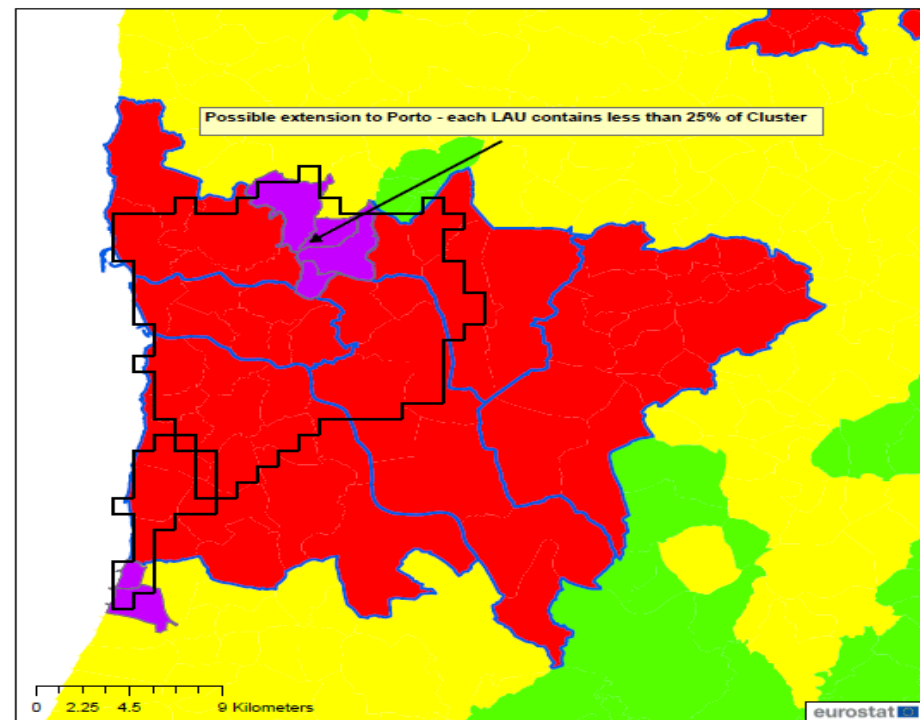
The LAU is not in a HD cluster, but over 50% is in a Urban Cluster so it changes from 3 to a 2

Refinement procedures in parallel with consultations with NSIs (3)

Porto - PT




Adjustment for a city:

LAU classified as a city can be reclassified as town and suburb if it shares the HDC with other LAUs where remains 75% of the HDC population



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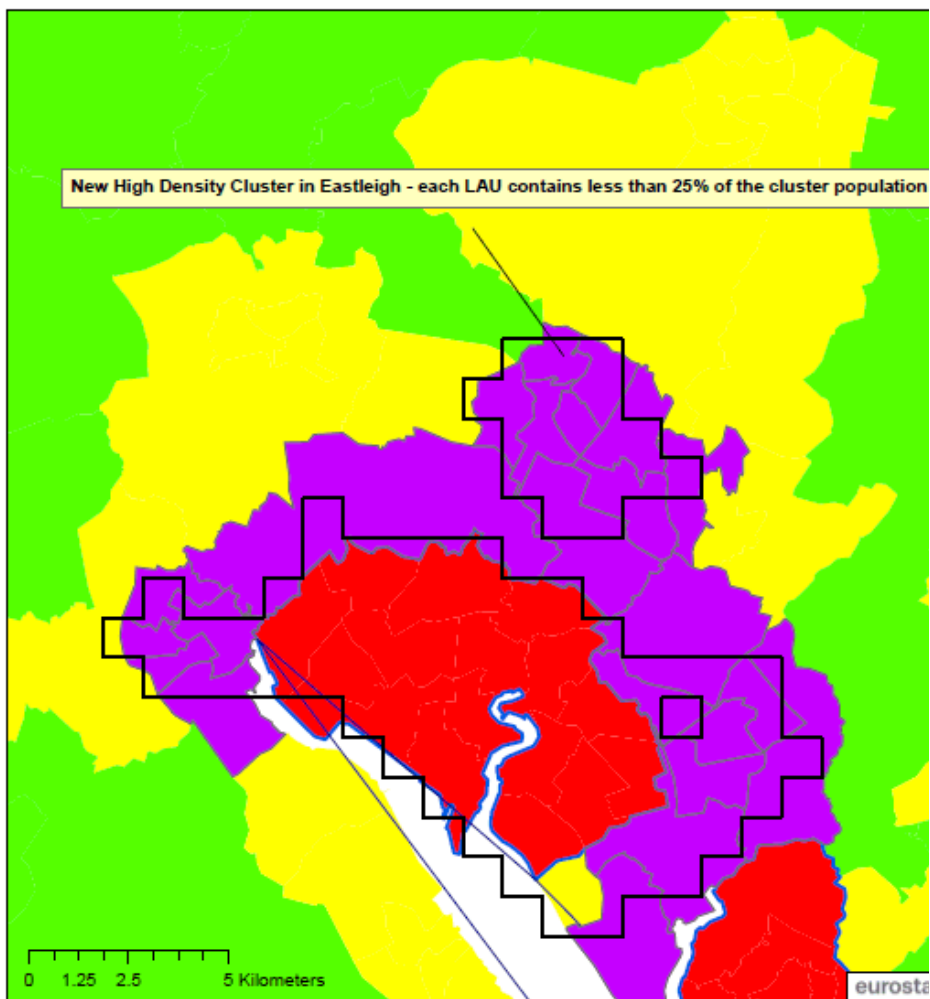
Legend

-  High density clusters
-  Classed as Urban but potential to change to Int?
-  Existing Urban Audit City

DGURBA

-  Urban
-  Intermediate
-  Rural

Eastleigh - UK



Administrative boundaries: © EuroGeographics © UN-FAO © Tu

Cartography: Eurostat — GISCO, 01/

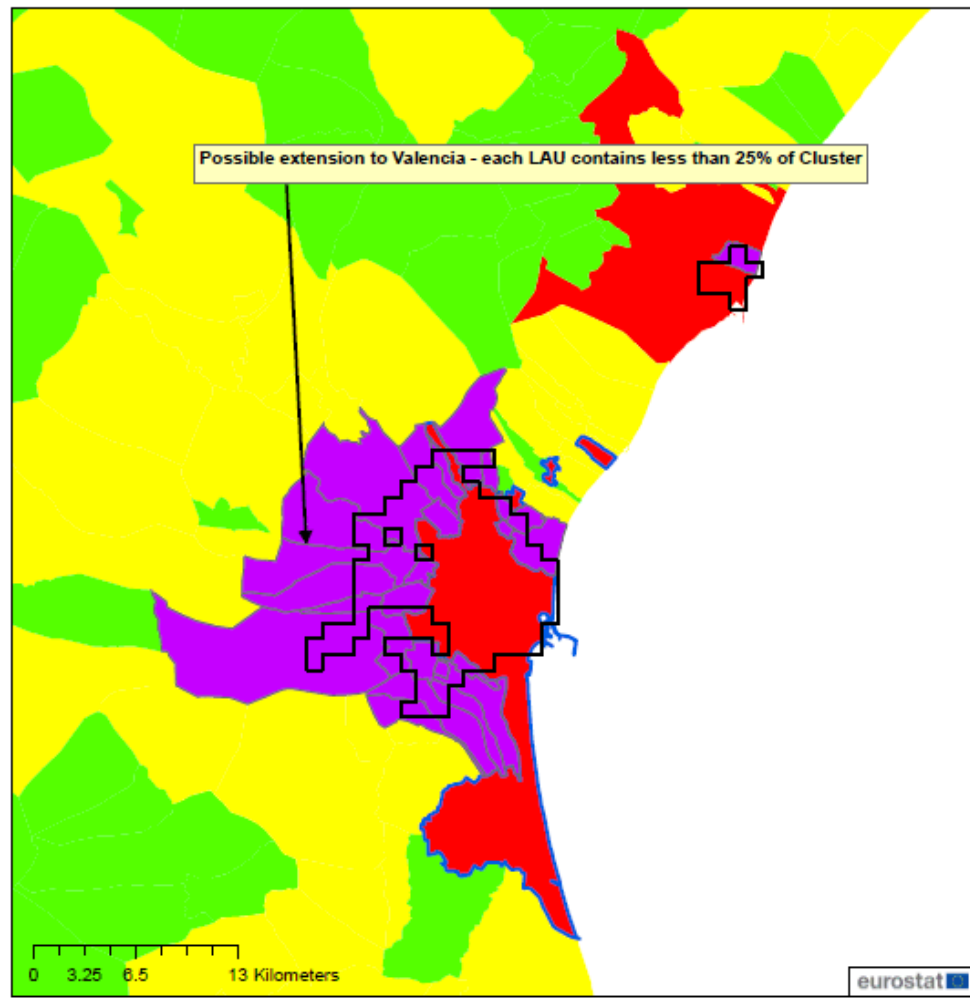
Legend

- High density clusters
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DGURBA

- Urban
- Intermediate
- Rural

Valencia - ES



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Cartography: Eurostat — GISCO, 01/2016

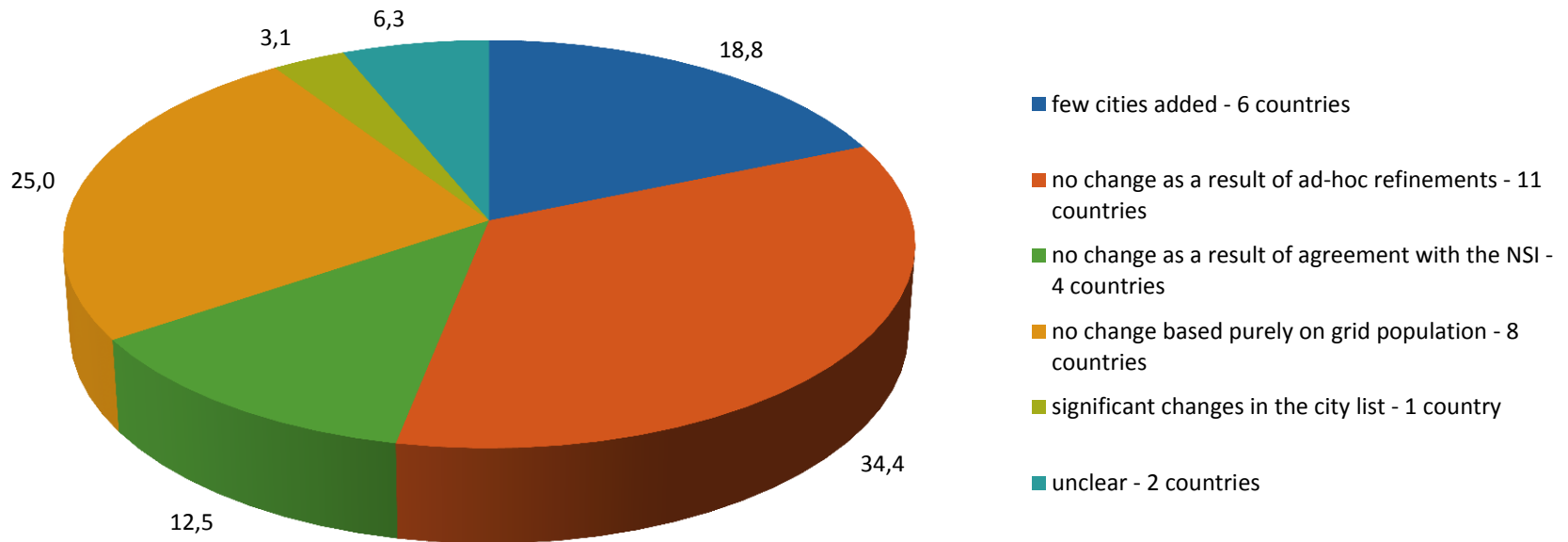
Legend

- High density clusters
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DGURBA

- Urban
- Intermediate
- Rural

Impact on the city list - EU 28 + EFTA



Results from the update

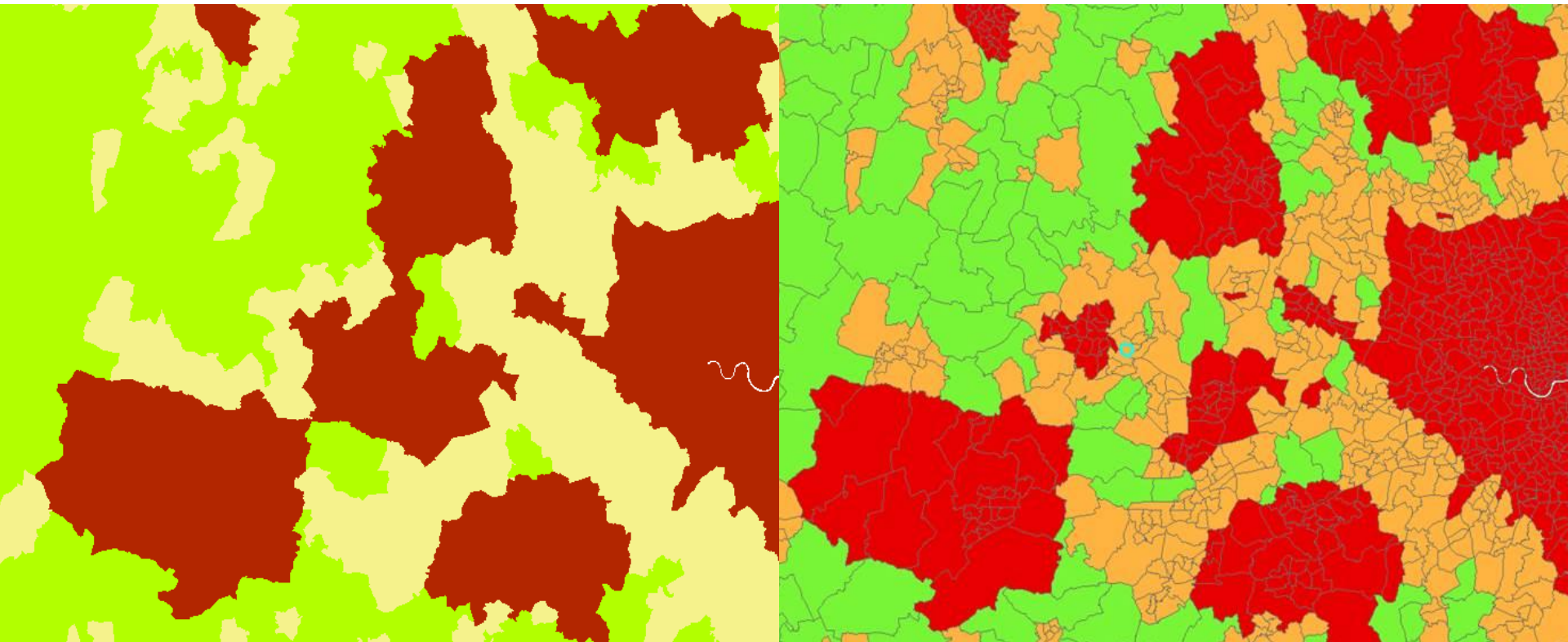
- The most significant changes are in Spain – 14 new cities, 93 LAUs that will be reported as a part of Greater cities and 9 new Greater cities (0.4% of the European population concerned but 19% of the Spanish population)
- France - 8 new cities, Netherlands – 5, Belgium - 2 new cities and 1 Greater city changed its boundaries; Germany - 2 new cities; Croatia – 2; Greece -1

Results from the update

- Around 3300 LAUs moved from class 3 to 2 which has an impact on 5.3% of the European population
- Around 1700 LAUs moved from class 2 to 3. In 2011 (as of the grid reference date) just 1% of the population have lived there.
- Despite the European scale of the changes data for first reference year is recommended to be flagged as "break in time series"

Example for change in DEGURBA

West of London – grid 2006 and 2011



Thank you for your attention!

Any comments?

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