



# Developing a global, people-based definition of cities and settlements

Cooperation between:

Directorate General for Regional and Urban Policy, Joint Research Centre,  
EUROSTAT (European Commission, European Union)

OECD, The World Bank, and Food Agricultural Organization

Session 9: 2030 Agenda for Sustainable Development

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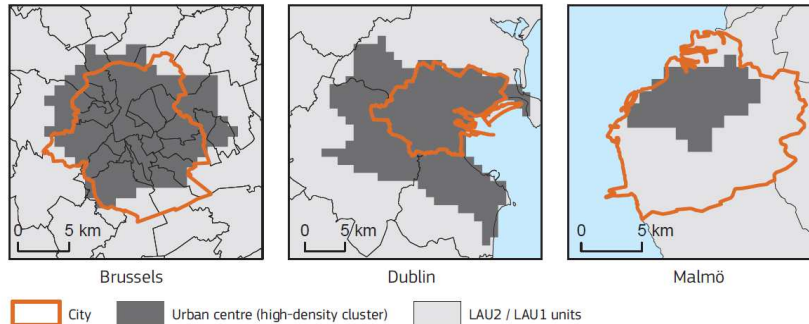


## Why?

- *To make meaningful comparisons of city indicators possible*
- *To answer questions such as:*
  - **How many cities are there in the World?**
  - **Is Istanbul bigger than Paris or Beijing?**
- *To improve SDG's monitoring strategies (i.e. Goal 11)*

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## Where does the city stop?



## Urban SDG indicators are very sensitive to the city boundaries

### Goal 11

- 11.1.1. Informal settlements in urban areas
- 11.2.1. Population with convenient access to public transport
- 11.3.1. Ratio of land consumption rate to population growth rate
- 11.6.2. Fine particulate matter (PM10 and PM 2.5)
- 11.7.1. Open space for public use



## Who committed to develop this?

- *The European Union together with the OECD and the World Bank launched this commitment to develop a global people based definition of cities and settlements during Habitat III in Quito in 2016*
- *FAO has joined this commitment*
- **Goal:** *present a definition to UN Statistical Commission in 2019*
- *Approach test two definitions:*
  - **Degree of urbanisation**
  - **EU-OECD functional urban area**
- *Interim results at World Urban Forum 2018*

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## What has been done so far?

- *The degree of urbanisation has been applied to the globe using a new free population grid created by the Joint Research Centre using the Global Human Settlement Layer and CIESIN population data <http://ghsl.jrc.eu.europa.eu>*
- *Results have been presented in the **Atlas of the Human Planet and the State of European Cities Report** <http://ec.europa.eu/cities-report>*

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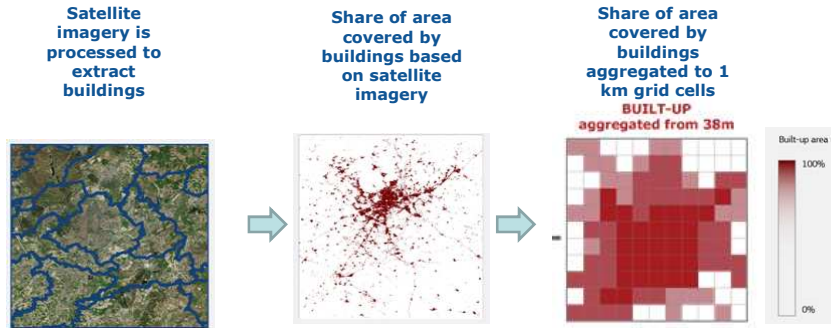
## Global Human Settlement Layer



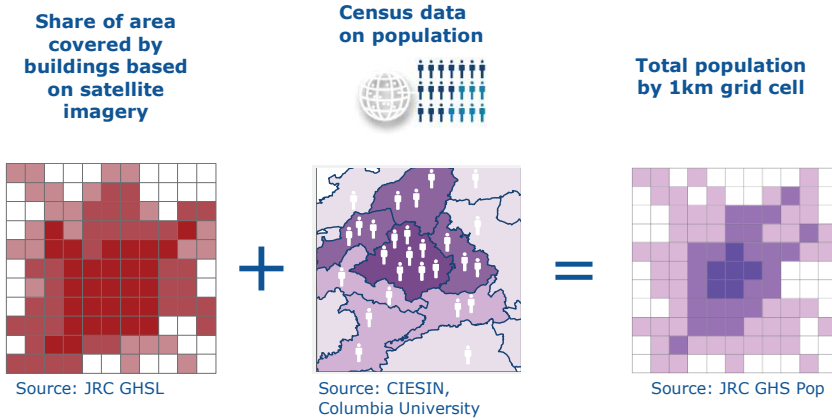
## Degree of urbanisation

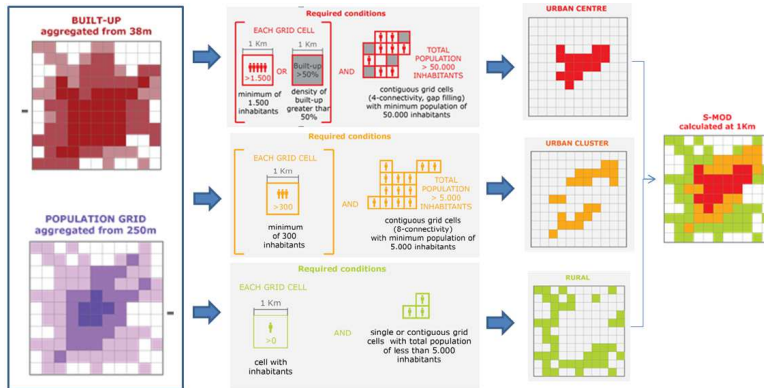
- *Is based on the 1 km<sup>2</sup> population grid*
- *Has three grid concepts*
  - **Urban centre**
  - **Urban cluster**
  - **Rural grid cell**
- *Translates these into three types of municipalities*
  - **City**
  - **Towns & suburbs**
  - **Rural areas**

## Creating a global built-up grid



## Creating a global population grid





## Three types of grid cells

<b>Urban centres</b>	<b>Contiguous cells with at least 1,500 inhabitants per km<sup>2</sup> and at least 50,000 inhabitants in the centre</b>
<b>Urban Clusters</b>	<b>Contiguous cells with at least 300 inhabitants per km<sup>2</sup> and at least 5,000 inhabitants in the cluster</b>
<b>Rural grid cells</b>	<b>All cells outside urban clusters</b>

## Three types of municipalities

<b>Cities</b>	<b>&gt; 50% pop. in urban centres</b>
<b>Towns and suburbs</b>	<b>&gt; 50% pop. in urban clusters and not classified as city</b>
<b>Rural area</b>	<b>&gt; 50% pop. in rural grid cells</b>


**Urban areas = Cities + Towns and Suburbs**

<http://ghslsys.jrc.ec.europa.eu/>

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Global Human Settlement

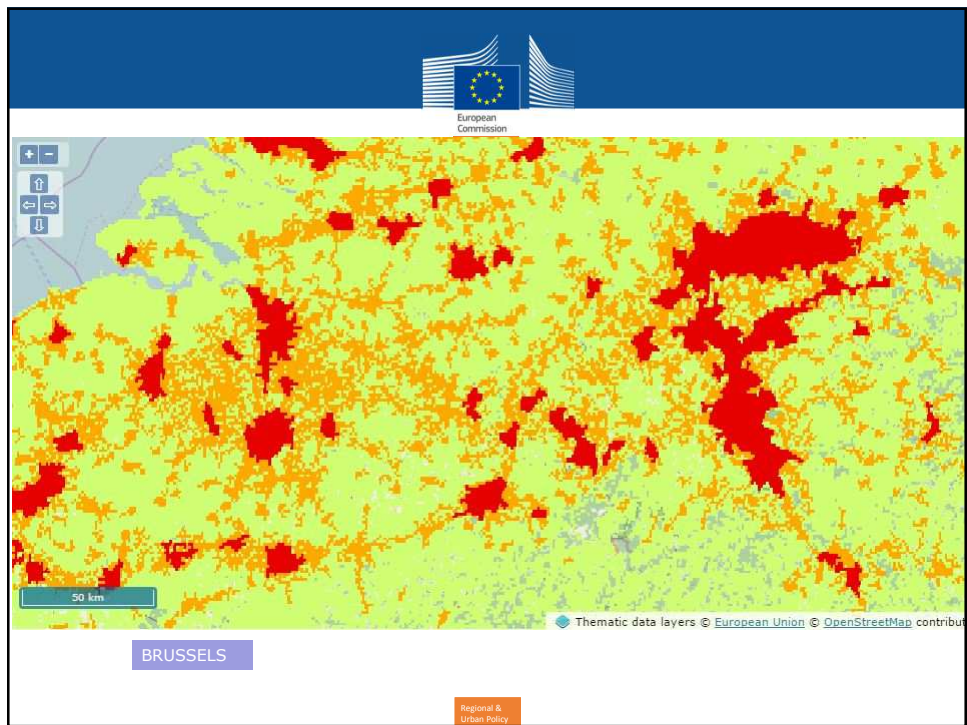
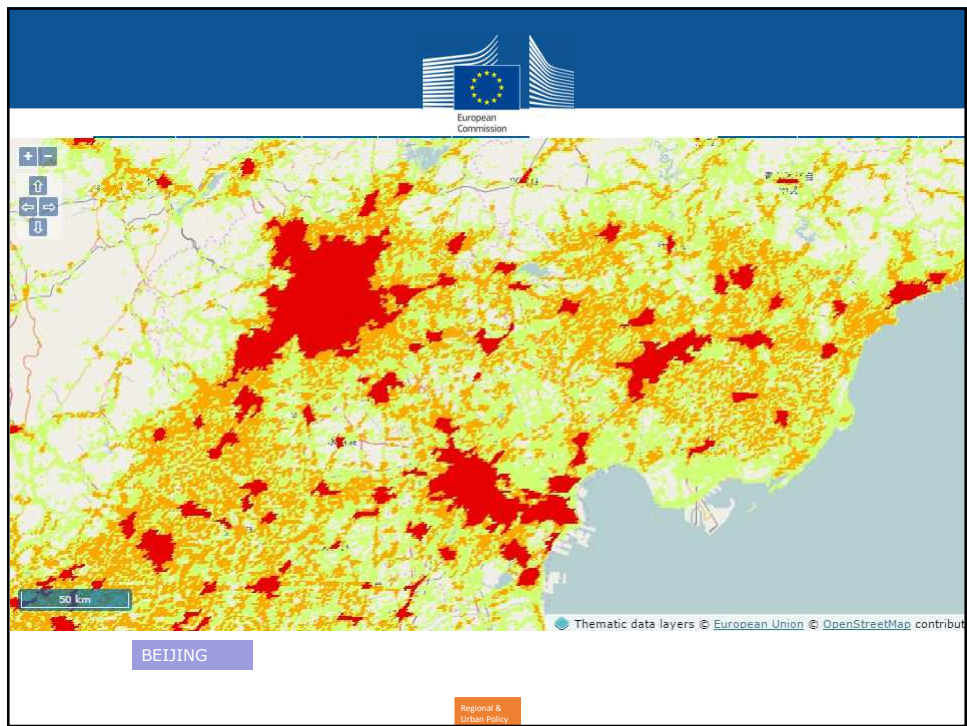
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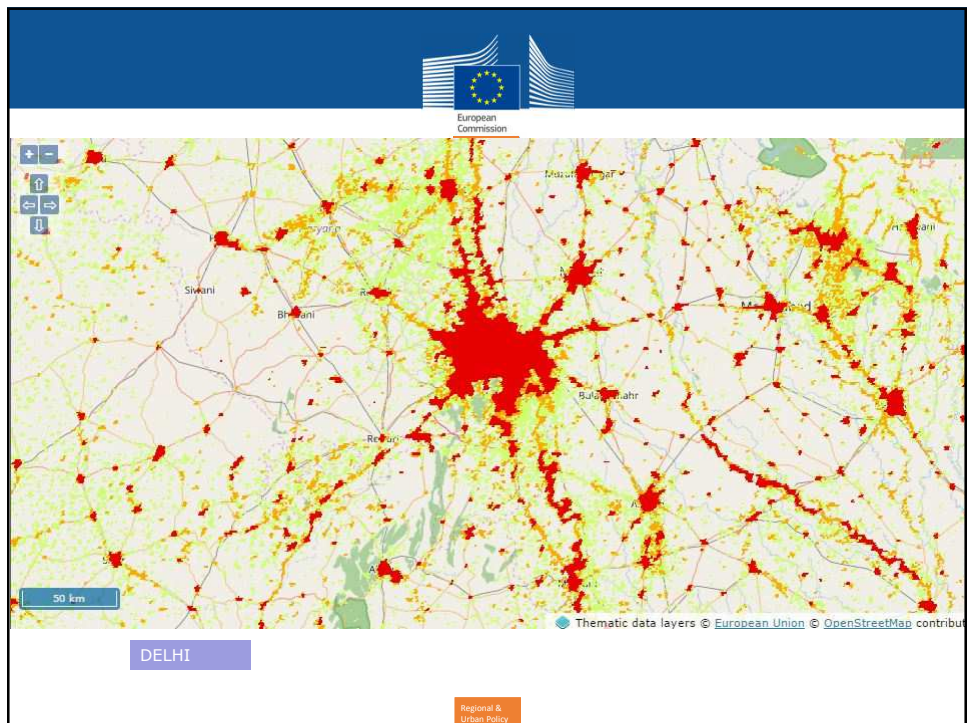
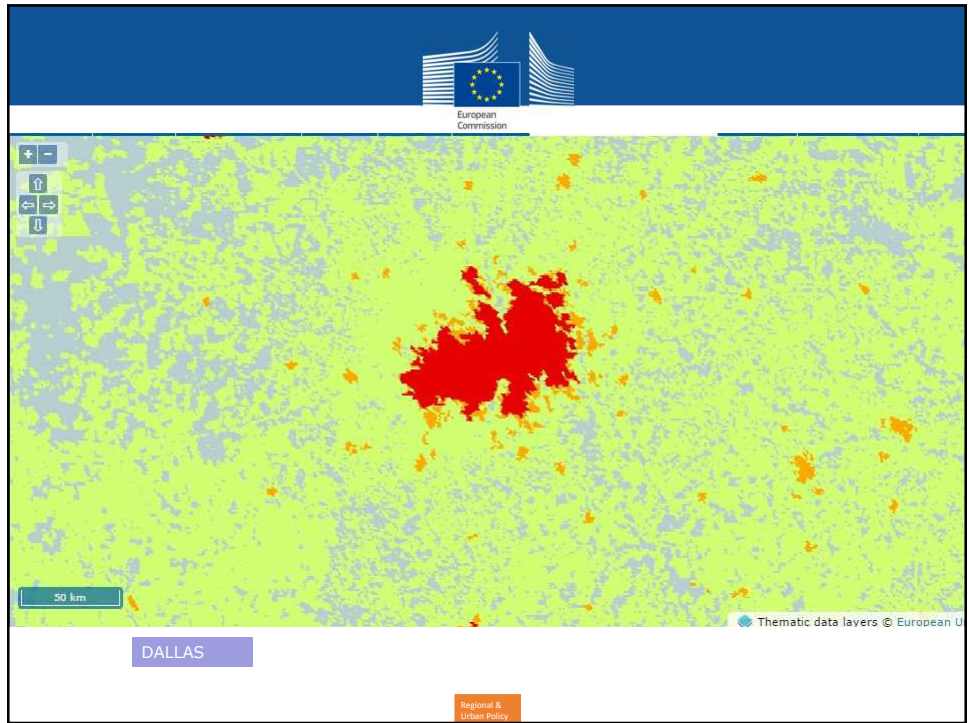


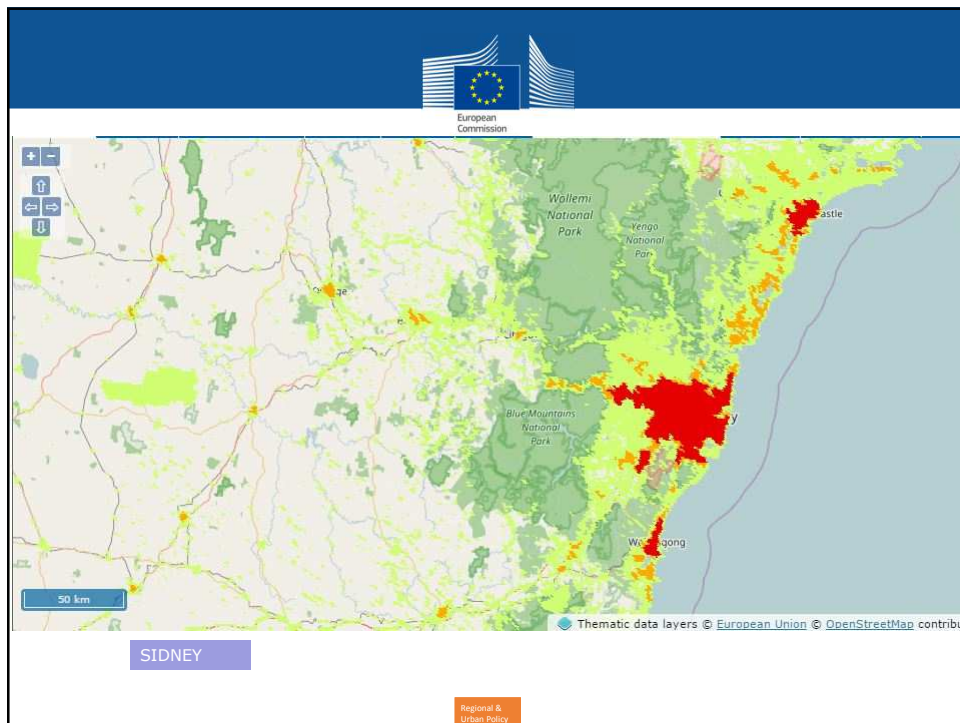
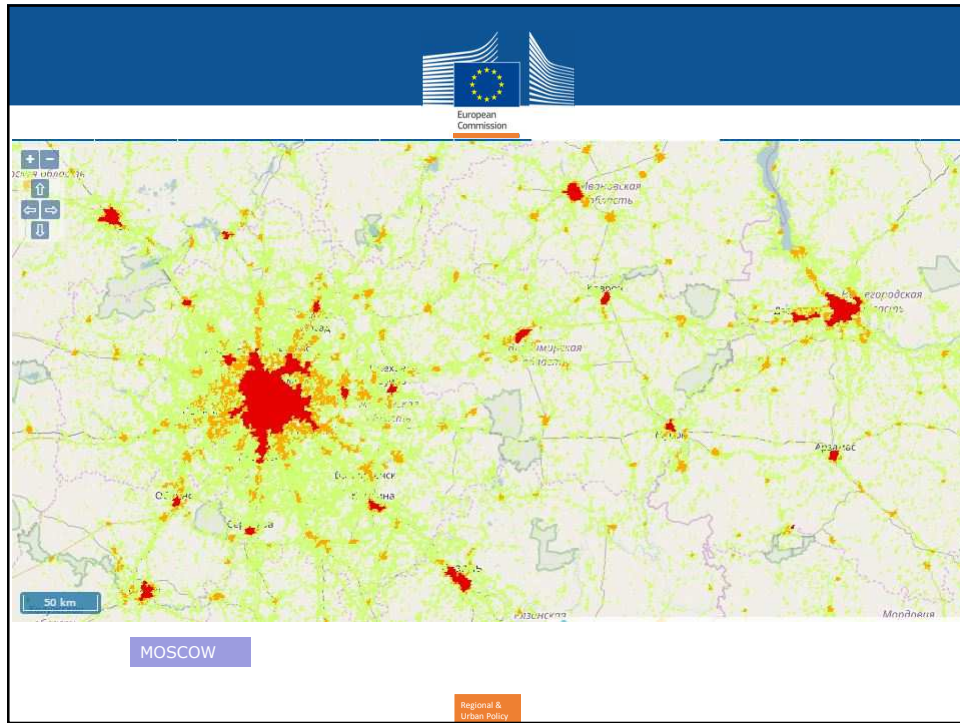
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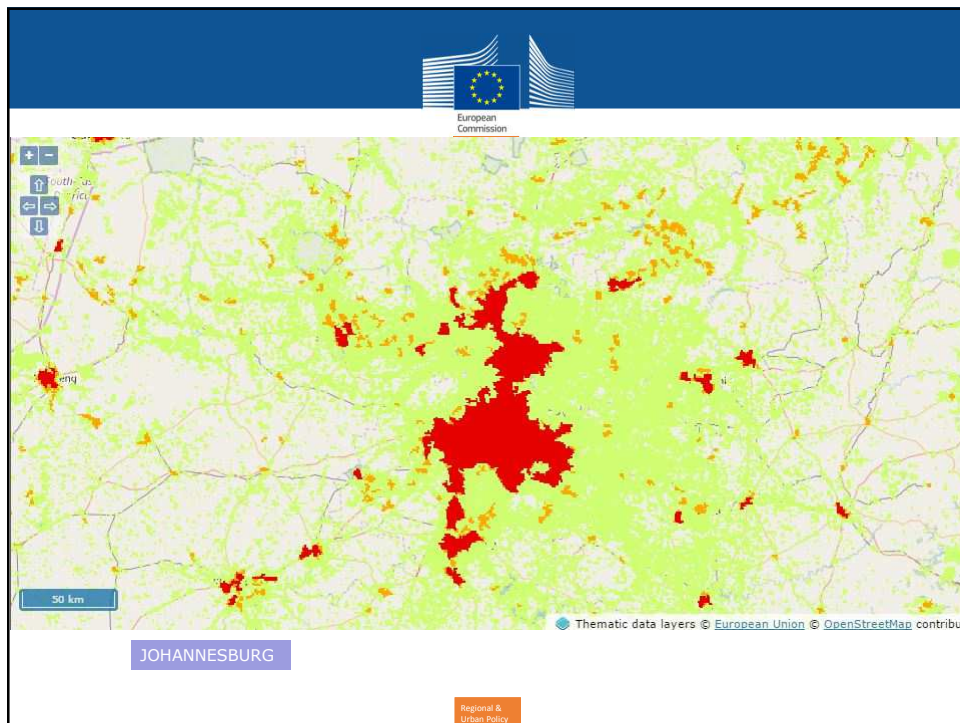
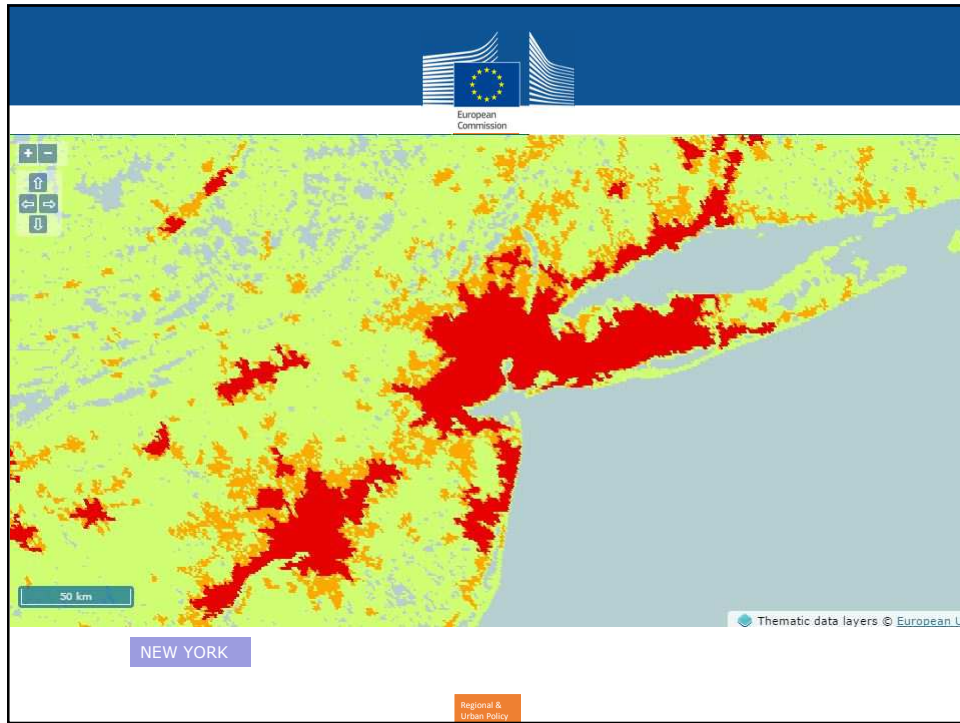


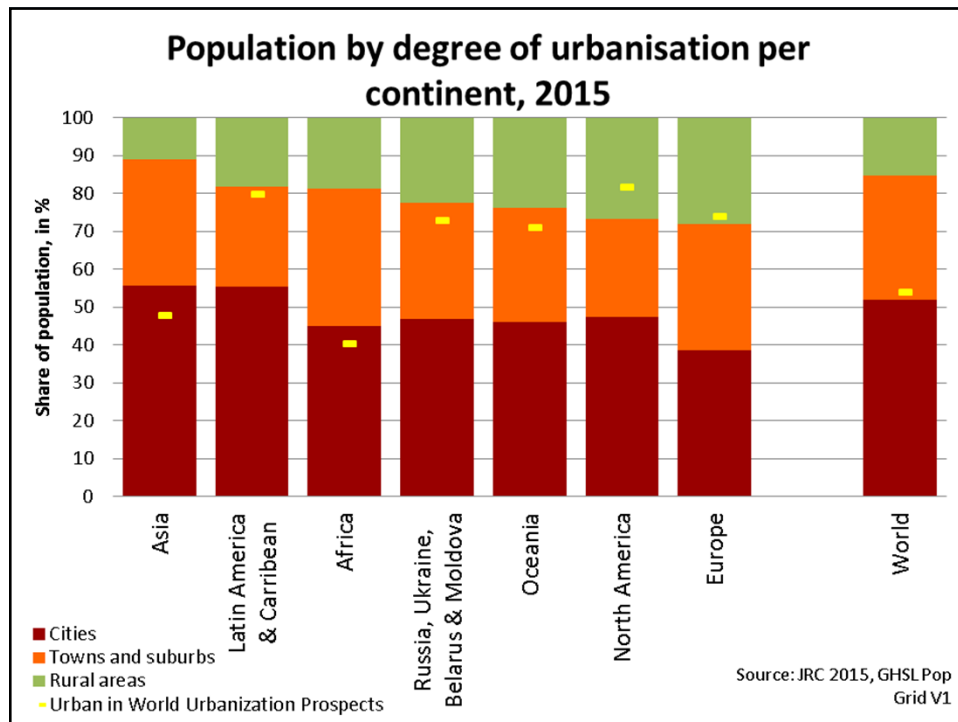
















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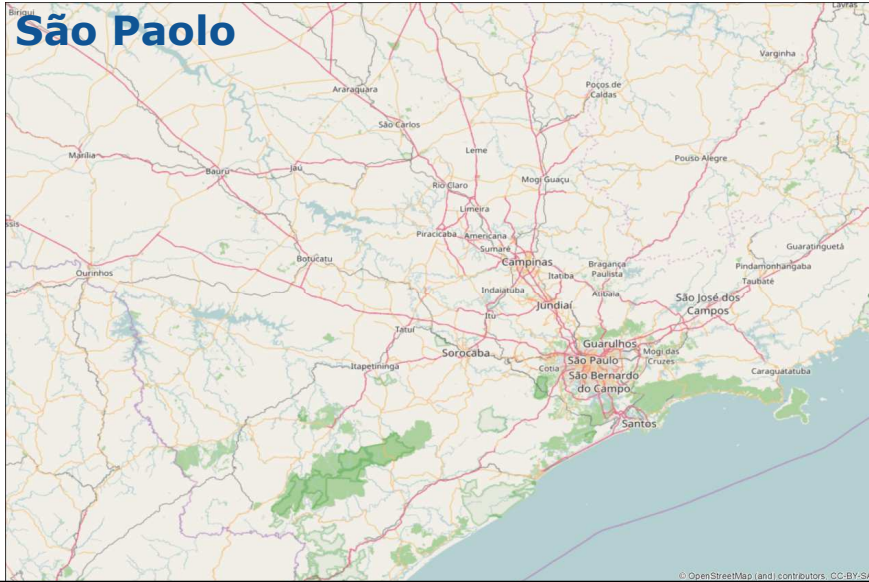
## Why are the results *so different*?

- *National definitions vary substantially: minimum population threshold ranges from 200 to 50,000*
- *Unclear how often definitions are updated*
- *Some countries do not report a definition or use a list of places with city status*
- *The global grid used can contain flaws if:*
  - **Population is not reported accurately**
  - **Building detection over or underestimates presence of buildings**
  - **Combining the data generated distortions**

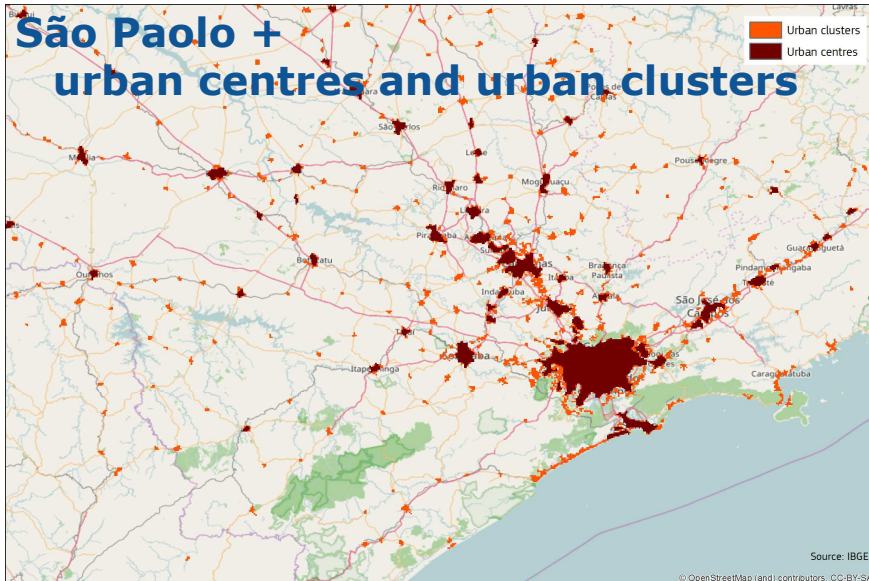


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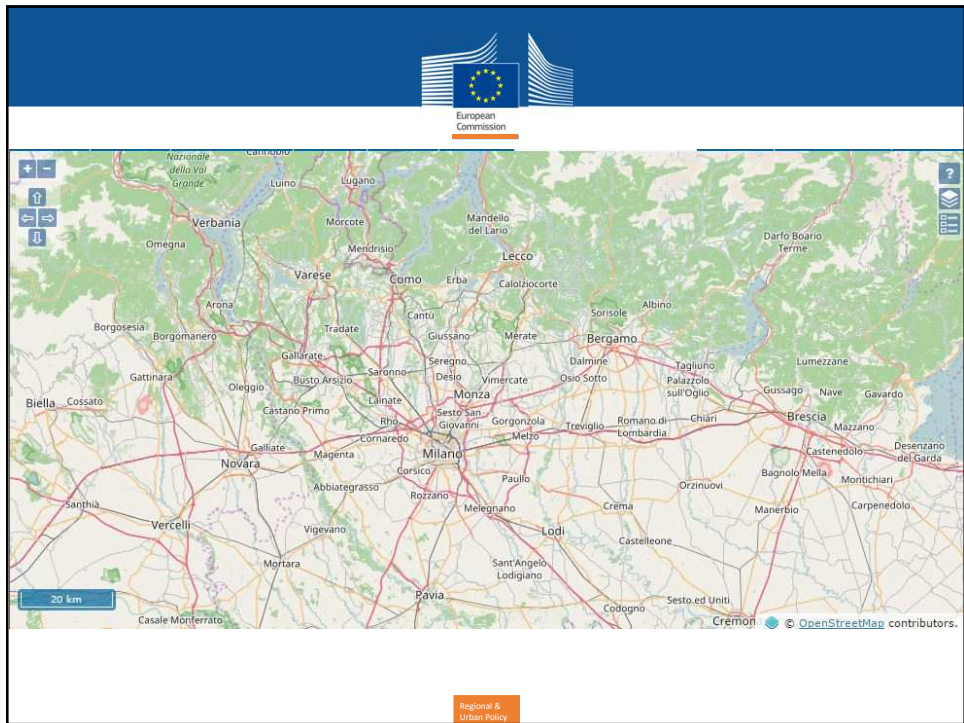
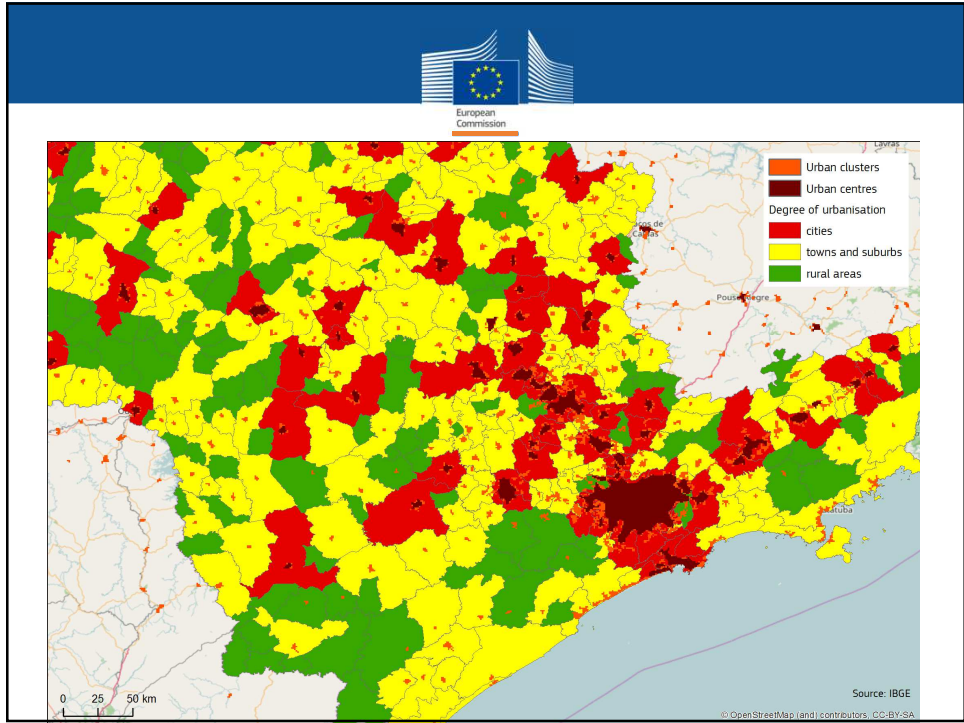
## São Paulo

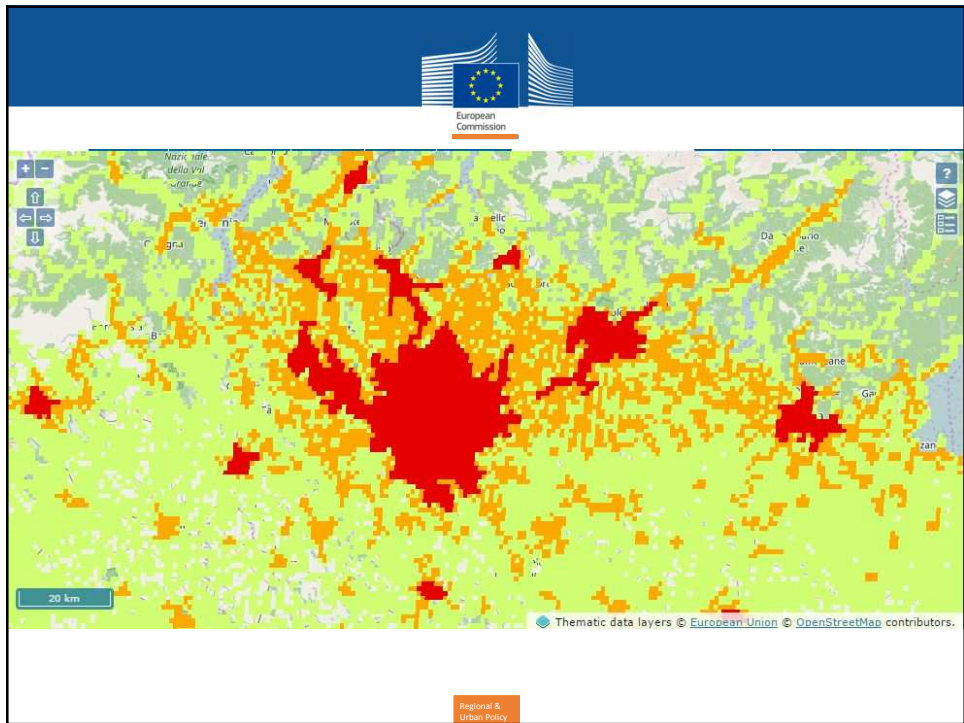
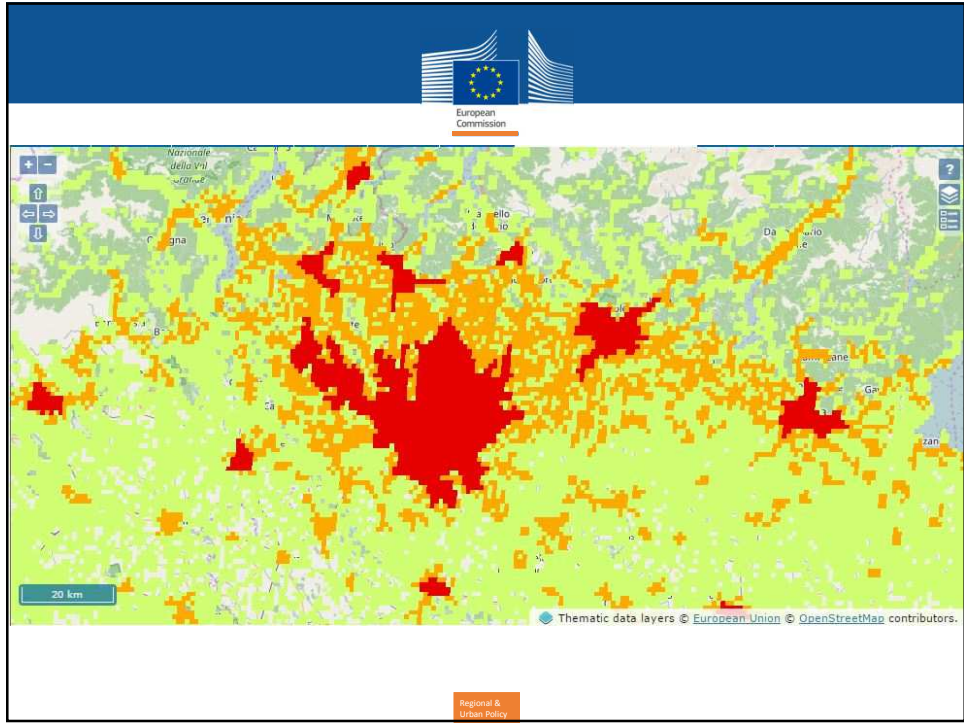


## São Paulo + urban centres and urban clusters

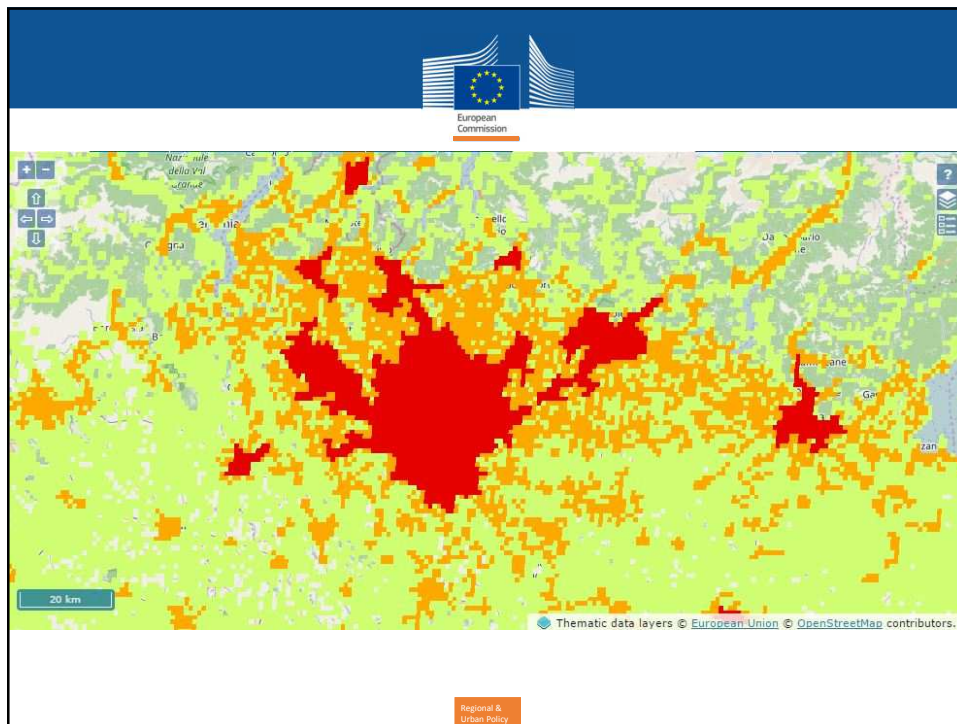












## What is planned during 2017?

- *A global consultation by Eurostat and UN asking about the validity, utility and feasibility of using the degree of urbanisation*
- *Pilot projects with individual national statistical institutes to apply the degree of urbanisation to local administrative units (and use national data)*
  - **South Africa, Brazil, Morocco**
  - **Vietnam, Colombia**
- ***We are still looking for more volunteers!!***

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## Ongoing work

- *Testing of methods to create a commuting zone in absence of commuting data?*
- *Improvements to the global population grid by using higher resolution EU satellites (**Sentinel 1 and 2**). Results will be published in 2018*
- *More outreach activities: World Statistical Congress in Marrakech, July 2017*
- *State of affair survey: countries of the world*

## Conclusions

- *The results from the global application of the degree of urbanisation and the first pilots are promising*
- *We are still looking for more national statistical institutes to join a pilot project, especially from Asia, Central Africa and Asia.*



## More information

*Global Human Settlement Layer:*

<http://ghsl.jrc.ec.europa.eu>

*Degree of urbanisation*

[http://ec.europa.eu/regional\\_policy/sources/docgener/work/2014\\_01\\_new\\_urban.pdf](http://ec.europa.eu/regional_policy/sources/docgener/work/2014_01_new_urban.pdf) and

<http://ec.europa.eu/eurostat/web/degree-of-urbanisation/overview>

*EU-OECD City definition*

[http://ec.europa.eu/regional\\_policy/sources/docgener/focus/2012\\_01\\_city.pdf](http://ec.europa.eu/regional_policy/sources/docgener/focus/2012_01_city.pdf) and

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