New scale, new needs, new statistics: Future prospects of European City statistics

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Most densely populated...

Metropolitan region:
  *Southampton*  
    \[5000 \text{ inhabitant/km}^2\]

NUTS 3 region:
  *Paris*  
    \[21\,000 \text{ inhabitant/km}^2\]

Local Administrative Unit:
  *11th arr. of Paris*  
    \[42\,000 \text{ inhabitant/km}^2\]
... the most dense 1 km² grid cell
Hospitalet de Llobregat
Population density based on the GEOSTAT population grid, 2011

(number of inhabitants / 10 x 10 km)
A system of urban/rural typologies

Grid cells

A classification of areas into a 1-km² grid and rural/urban typologies based on population distribution and density.

LAU2 units

Degree of urbanisation

A classification of local administrative units (LAU2) based on the degree of urbanisation and density.

NUTS 3 regions

Urban/rural typology

A typology of NUTS 3 regions based on urban/rural typology and density.

Three levels of urban/rural classification based on population distribution

- Urban clusters > 5,000
- Urban centres > 50,000
- Rural areas
- Towns and suburbs
- Cities
- Rural regions
- Intermediate regions
- Urban regions

Further information:
Characteristics of the definition

- Population based definition
- Starts from the population grid
  - Avoids distortions caused by large variations in the area of administrative territorial units
- Uses three categories at three spatial levels
- Enables the collection, compilation and dissemination of harmonised statistics
- Allows better targeted policy-making at EU level
Commuter flows of London
Characteristics of the definition

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- Allows better targeted policy-making at EU level
- Administrative boundaries do not necessarily mirror the current social and economic reality
New Scale - Prospects for the future

• Complement existing territorial classifications with more flexible, more functional statistical geography
Where are people during a typical weekday?

Belgium

Source: Joint project of Statistics Belgium, Proximus and Eurostat
Classification of the territory: residential, commuting and working areas profiles

Belgium
Objectives of post 2020 cohesion policy

1. A smarter Europe
2. A greener, carbon free Europe
3. A more connected Europe
4. A more social Europe
5. A Europe closer to the citizen: sustainable and integrated development in urban areas, rural areas and coastal areas.

... create new needs
Measuring the accessibility of public transport

Location of all public transport stops
Timetables in 2 groups:
  • bus and tram
  • train and metro
For each stop:
  average number of departures an hour between 6:00 and 20:00 on a normal weekday
Measuring access to public transport

Who has easy walking access to a public transport stop?

- Maximum 5 minutes walk to bus or tram stop
- Maximum 10 minutes walk to train or metro

Walking distance calculated using a street network

- Density of the street network matters
- Obstacles for pedestrians are taken into account

For each catchment area around a stop: total number of departures and number of inhabitants
## Frequency classes

5 groups based on access and departure frequency

<table>
<thead>
<tr>
<th>Bus and tram</th>
<th>Metro and train</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High frequency (&gt; 10 departures/hour)</td>
</tr>
<tr>
<td>High frequency (&gt; 10)</td>
<td>VERY HIGH</td>
</tr>
<tr>
<td>Medium frequency (4 to 10)</td>
<td>HIGH</td>
</tr>
<tr>
<td>Low frequency (&lt; 4)</td>
<td>HIGH</td>
</tr>
<tr>
<td>No services</td>
<td>HIGH</td>
</tr>
</tbody>
</table>
Stockholm: areas and population by access to public transport and its frequency

Access to public transport in large European cities
Prospects for the future

• Exploit novel data sources: open data, big data, etc.
• Promote geocoding of statistical and administrative data sources
Prospects for the future – New Statistics

• Use technology embedded in smart systems aiming at transforming data into knowledge presented in the form of statistics: Trusted Smart Statistics
Trusted statistics might not be good enough

- Ensuring validity and accuracy of the outputs
- Respecting data subjects' privacy and protecting confidentiality
- Confirm the principles covering the institutional environment, the statistical production processes and the output of statistics.
- Privacy by design, end-to-end security, auditable data life-cycle, transparency, satisfy consent and purpose conditions, assessment boards, ...
"Smart statistics" in the business case 2018-2020

Smart cities and connected vehicles

- Use of smart vehicles, smart parking, meteorological stations
- **Statistical themes:** Urban mobility, road safety, optimised transportation resources, autonomous vehicles
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Thank you for the attention!

http://ec.europa.eu/eurostat/web/regions-and-cities/overview

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