Labour Market Areas for Territorial Policies: Potentials for a European Approach

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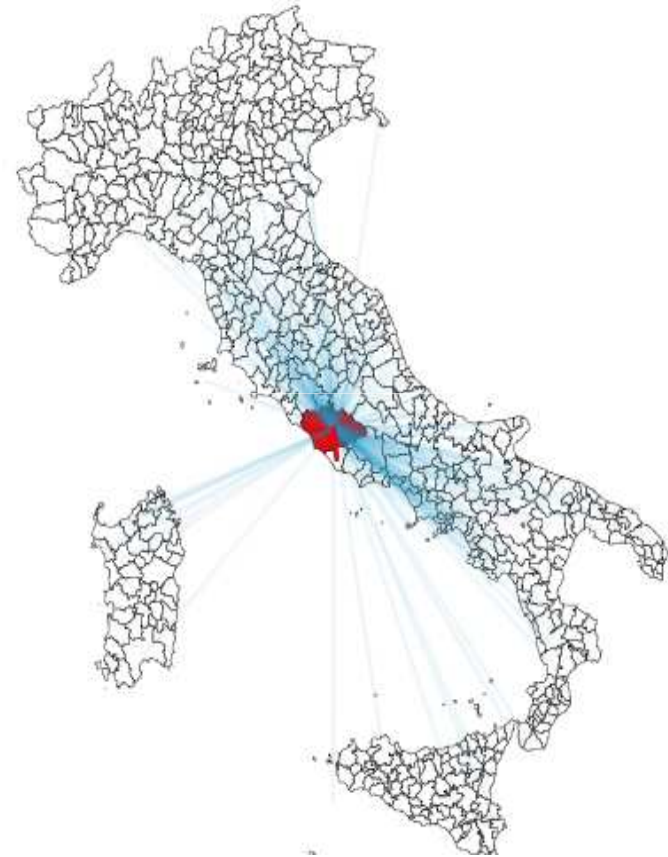Directorate for territorial and environmental statistics

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Istat

1. LMAs: relevant territorial units

2. Products developed at Istat with LMAs

3. Initiatives linked to a Eurostat Grant

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Labour Market Areas: a functional geography

Travel to work – commuters flows, 2011

- The **functional areas** are defined through horizontal relationships: the **spatial flows**

- For the case of Labour Market Areas, these flows are the commuters flows between residence and work municipalities

- The idea behind:
  - ✓ **maximizing** the internal functional relationships
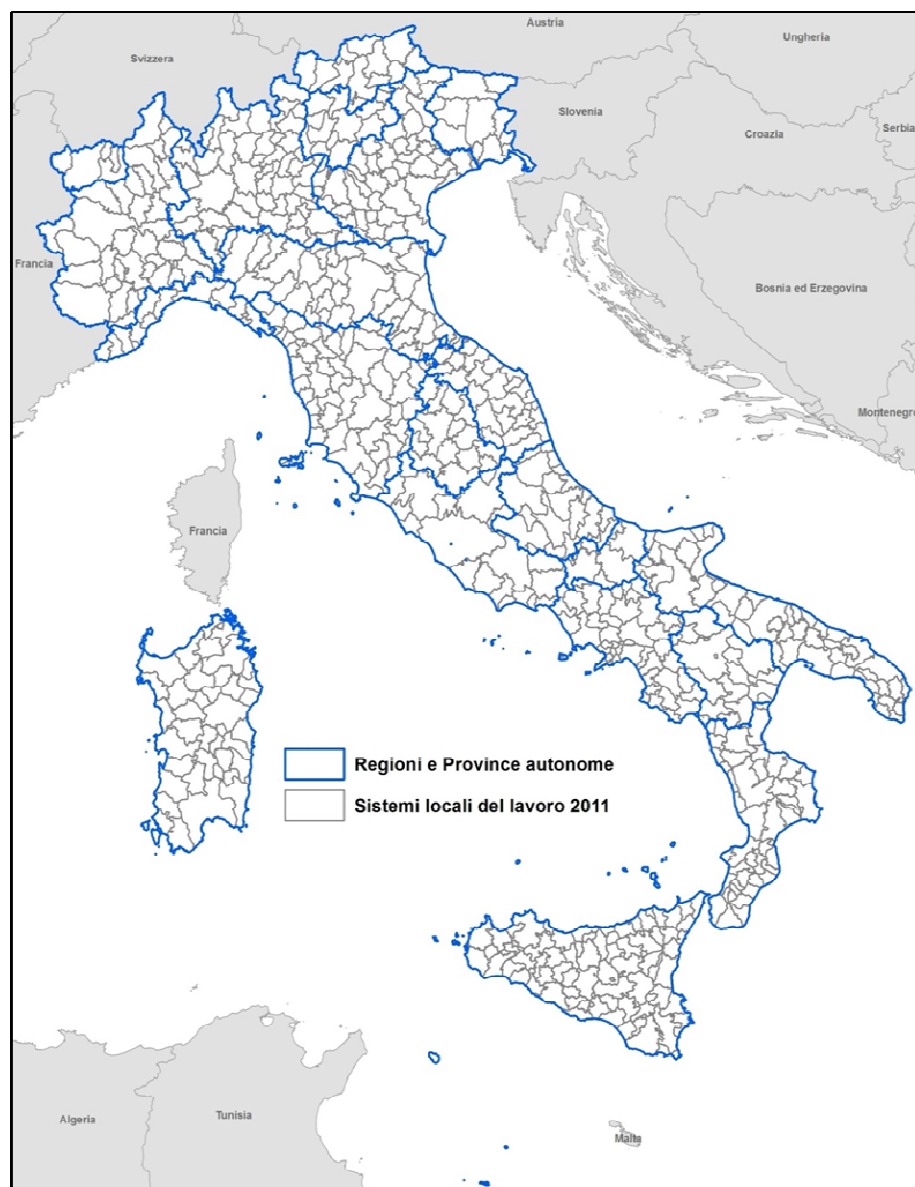 - ✓ **minimizing** the external ones

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- The area where **the bulk of the labour force lives and works** and, therefore, tends to exercise most of its social and economic relationships;

- We measure "the bulk of the labour force" through the concept of **self-containment (SC)**;

- SC is the proportion of the labour force that **live and work in the area** w.r.t. the resident employees (or the those working in the area)

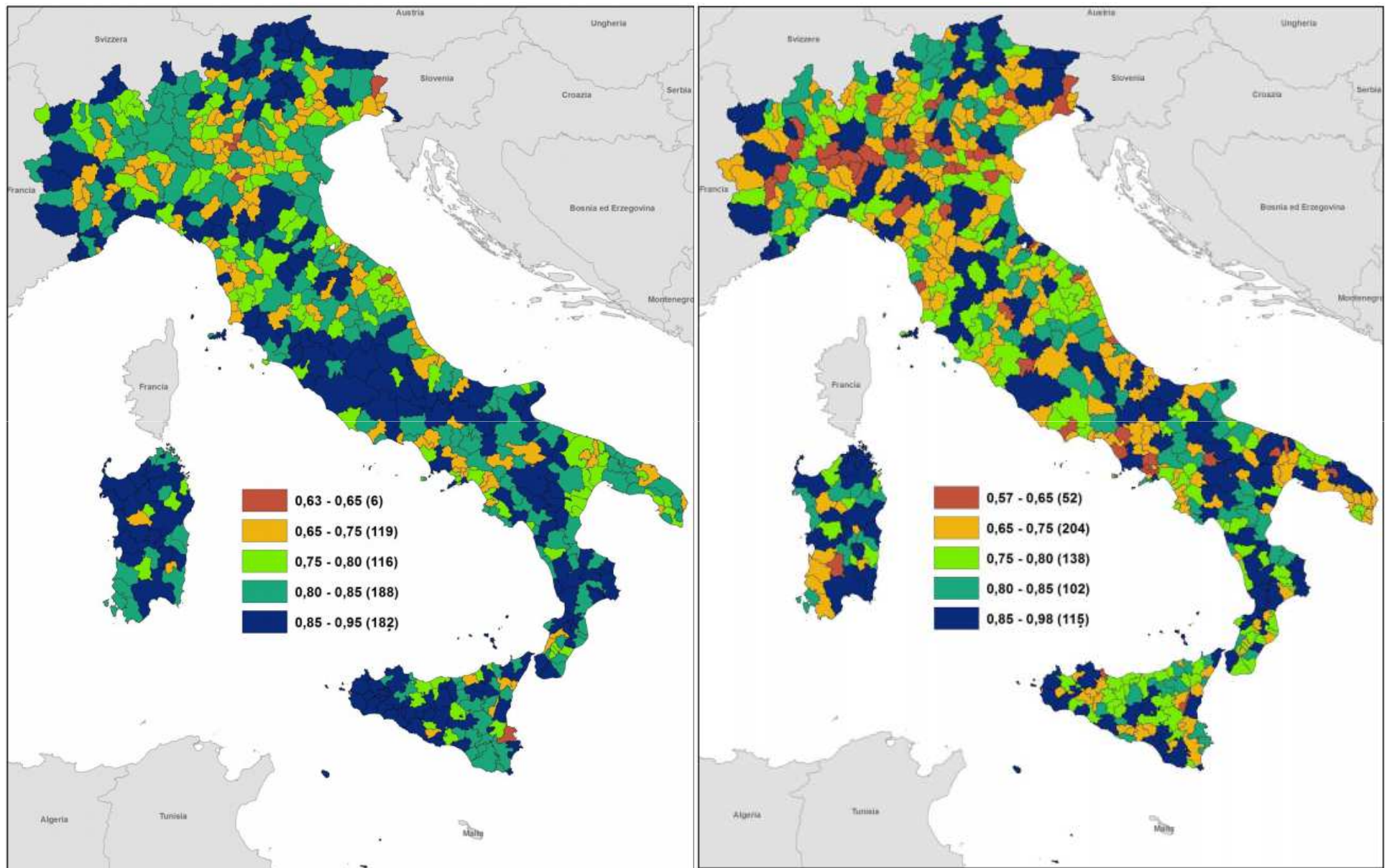- The LMAs are identified using **quantitative methods** that depends on parameters;

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- LMAs are a partition of the country;

- The same parameters are used for the whole country => Comparability

- They are based on the whole matrix of commuting data stemming from the population census;

- For the 2011 population census:

  - 8092 municipalities
  - More than 540000 different commuting tracks

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- Istat has released LMAs for the first time in the '80s

- Till the 2001 census, LMAs have been produced in collaborations with various institutions (University of Newcastle –UK-, IRPET, Italian universities)

- In 2013 Istat took part in Eurostat Task Force on "harmonised LMAs": the TF stated principles and proposed the adoption of the classical TTWA method (Coombes et al. 1986) in a more recent version: Coombes and Bond (2008)

- Istat has modified a script developed by CBS in R to comply with the comments stemming from the Task Force members and communications by Prof. Coombes;

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Regioni e Province autonome
Sistemi locali del lavoro 2011

- The 2011 update of LMAs has been released in December 2014

- There are 611 LMAs in Italy in 2011 (there were 683 in 2001)

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Demand side and supply side self-containment

Left map legend:
- 0,63 - 0,65 (6)
- 0,65 - 0,75 (119)
- 0,75 - 0,80 (116)
- 0,80 - 0,85 (188)
- 0,85 - 0,95 (182)

Right map legend:
- 0,57 - 0,65 (52)
- 0,65 - 0,75 (204)
- 0,75 - 0,80 (138)
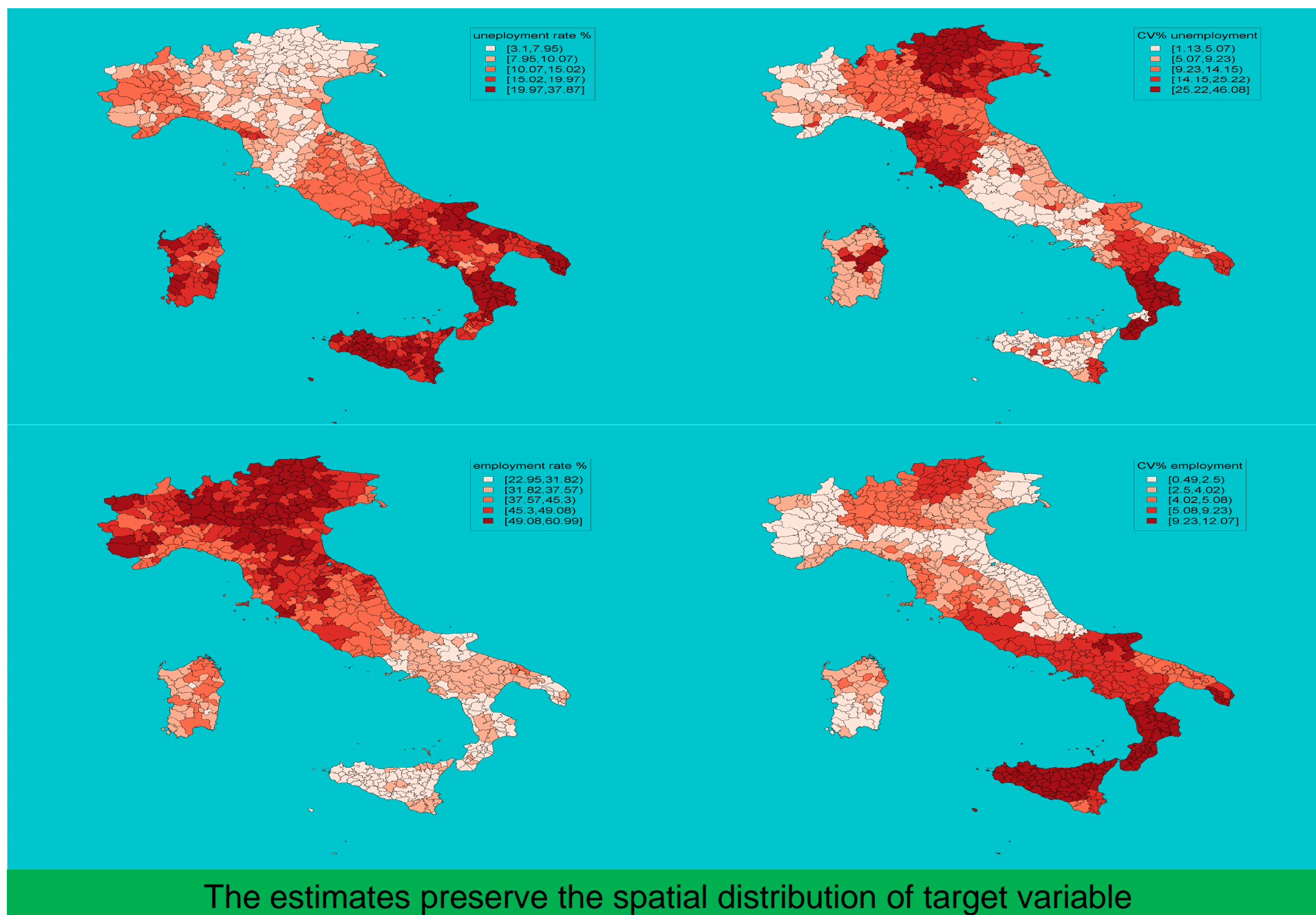- 0,80 - 0,85 (102)
- 0,85 - 0,98 (115)

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1. meaningful comparisons of labour market;

2. tool to identify Italian Industrial Districts;

3. a core geography for Italy;

4. Tool for regional policy;

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- Labour Force survey has a sampling design that allows for estimates at NUTS3 level;

- LMAs are not a planned estimate domain and they cut across survey strata;

- By mean of small area estimation methods Istat produces estimates on unemployment rate at LMA level since 2000 .

- A new model has been recently released and the 2014 estimates of unemployment rates at LMAs level have been released
  http://www.istat.it/it/archivio/178277

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LMA – Annual Estimates of unemployment and employment rate 2014

uneployment rate %
- [3.1,7.95)
- [7.95,10.07)
- [10.07,15.02)
- [15.02,19.97)
- [19.97,37.87]

CV% unemployment
- [1.13,5.07)
- [5.07,9.23)
- [9.23,14.15)
- [14.15,25.22)
- [25.22,46.08]

employment rate %
- [22.95,31.82)
- [31.82,37.57)
- [37.57,45.3)
- [45.3,49.08)
- [49.08,60.99]

CV% employment
- [0.49,2.5)
- [2.5,4.02)
- [4.02,5.08)
- [5.08,9.23)
- [9.23,12.07]

The estimates preserve the spatial distribution of target variable

- **Industrial District** is "*a socio territorial entity which is characterized by the active presence of both a* **community of people** *and a* **population of firms** *in one naturally and historically bounded area*." (Becattini 1990:38)

- The firms are small to medium size

- They are specialized in specific production phases of the same production process organized in flexible teams

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Industrial Districts 2011

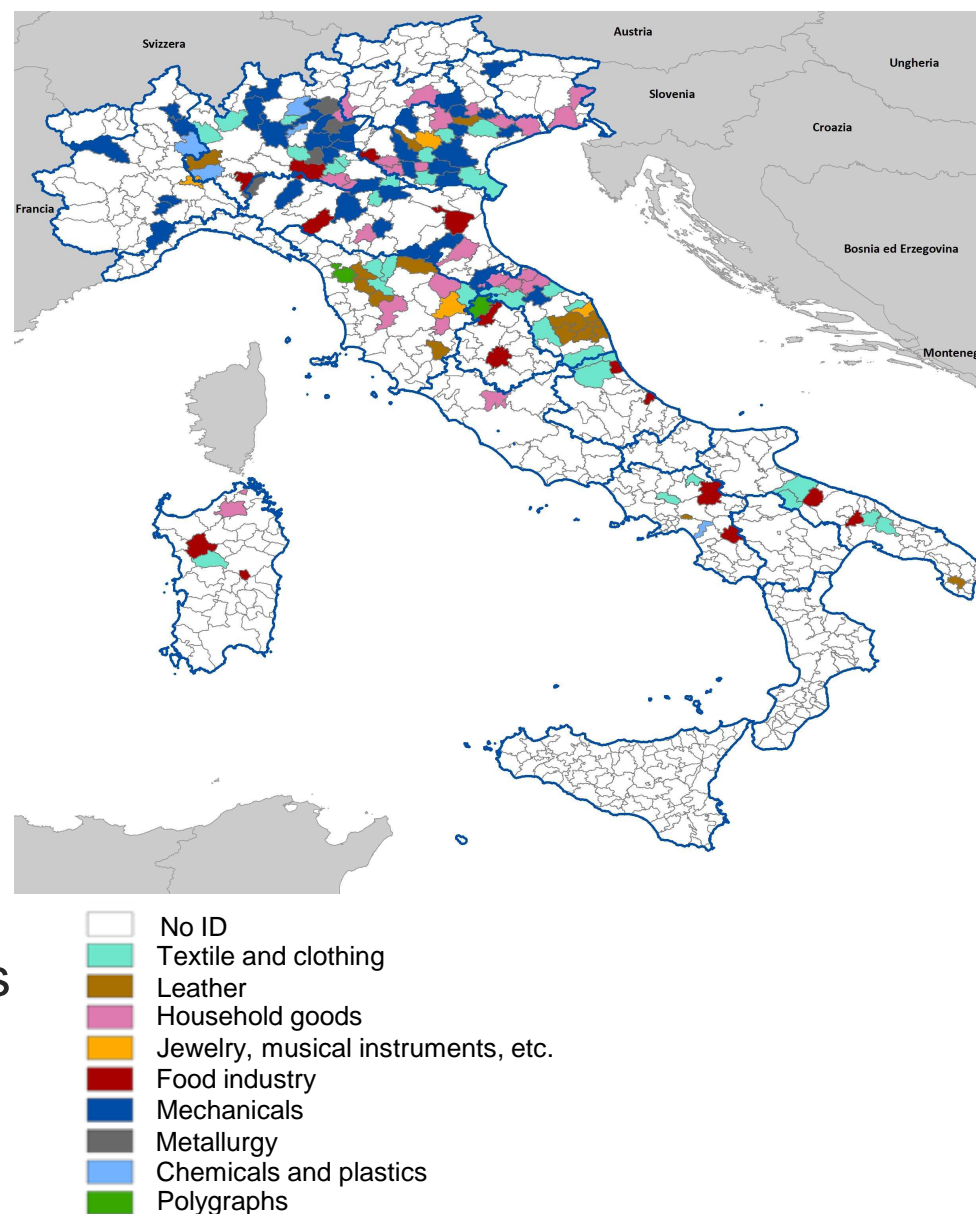There are 141 IDs (out of 611 LMAs) (Istat 2015)

Their economic specialization is identified by means of the 2011 Business Census

Almost one fourth of total Italian employment was absorbed by IDs (24,5%)

Such share grows up to 37,9% in terms of manufacturing employment

Mainly specialized in mechanicals (27% of IDs), textile and clothing (23%), household goods (17%)

http://www.istat.it/it/archivio/150320

No ID
Textile and clothing
Leather
Household goods
Jewelry, musical instruments, etc.
Food industry
Mechanicals
Metallurgy
Chemicals and plastics
Polygraphs

Istat

Since its 2015 Annual Report Istat has started an extensive use of LMAs as a geography to interpret phenomena**:**

Some example

- **socio-demographical characteristics based on censuses**

- **Classification by prevailing product specialisation**

- **New analyses based on integrated data**

- **New studies based on further characteristics of society and territory (eg. land use);**

These and other studies have been published in an e-book (in Italian) available at: http://www.istat.it/it/archivio/172444

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- The Barca report (2009) to the EU stresses the need of **place based policy**:

"A place-based policy is a long-term strategy aimed at tackling persistent under utilisation of potential and reducing persistent social exclusion in specific places through external interventions and multilevel governance. It promotes the supply of integrated goods and services **tailored to contexts**, and it triggers institutional changes. In a place-based policy, public interventions rely on local knowledge and are **verifiable** and **submitted to scrutiny**, while linkages among places are taken into account.
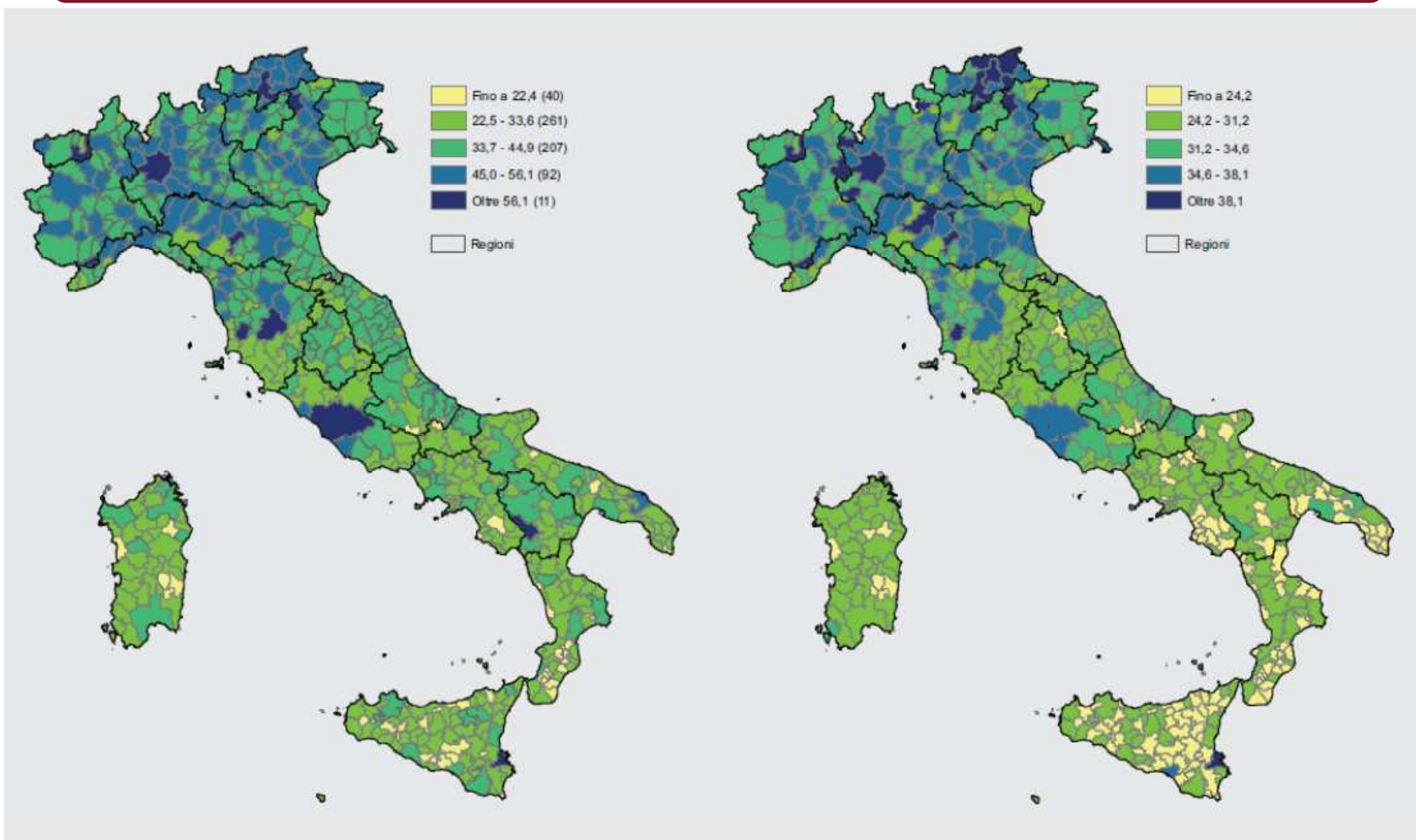
AN AGENDA FOR A REFORMED COHESION POLICY , Barca (2009)

http://www.dps.tesoro.it/documentazione/comunicati/2010/report_barca_v0306.pdf

In this context statistics is crucial:

- First: statistically determine "the place" i.e. develop a geography that is relevant, reliable and comparable in the country as a whole: LMAs is such a geography;

- Second: produce statistical indicators to identify the areas which need interventions and to perform impact assessment of the implemented policy.
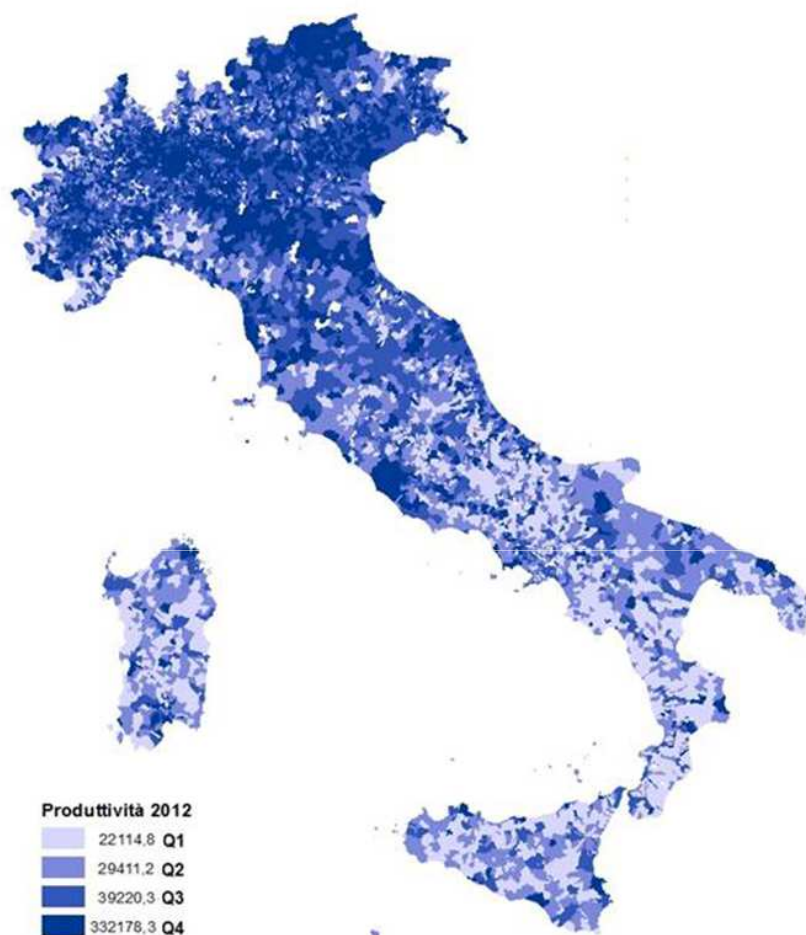
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Productivity and labour cost (source:Frame-Sbs)

Added value per person employed (productivity)

Legend:
- Fino a 22,4 (40)
- 22,5 - 33,6 (261)
- 33,7 - 44,9 (207)
- 45,0 - 56,1 (92)
- Oltre 56,1 (11)
- Regioni

Labour cost per employee

Legend:
- Fino a 24,2
- 24,2 - 31,2
- 31,2 - 34,6
- 34,6 - 38,1
- Oltre 38,1
- Regioni

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Produttività 2012

22114,8	Q1
29411,2	Q2
39220,3	Q3
332178,3	Q4

Municipalities by productivity quartiles

Data sources:
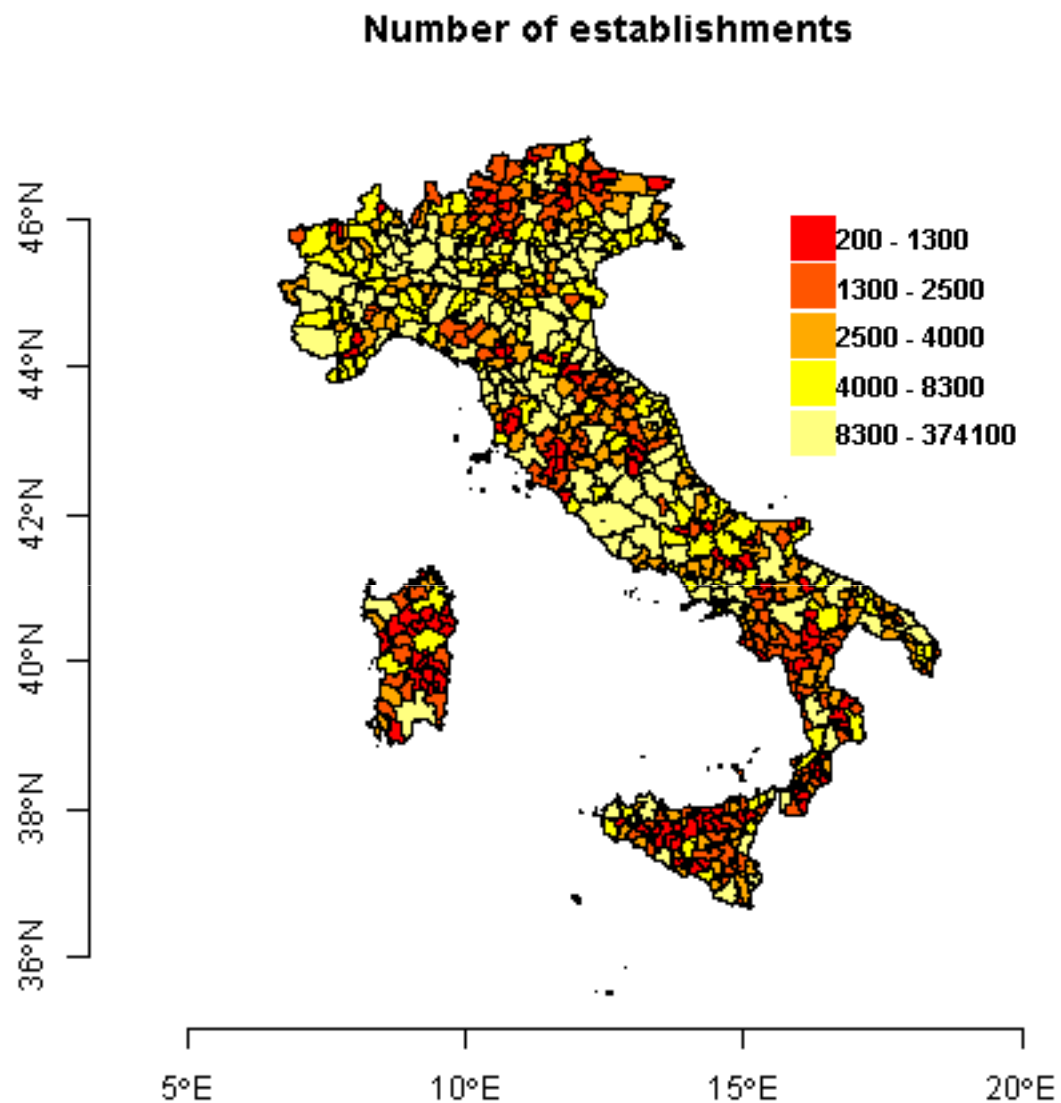FRAME **SBS: registers and surveys micro data linkage**

Proposed procedure:
1. VA available at enterprise level, VA_ENT.

2. The VA at establishment level, VA_LU, is estimated as the sum of labour cost, capital and wages of enterpreneurs.

3. The VA_LU is then adjusted to be coherent to VA_ENT

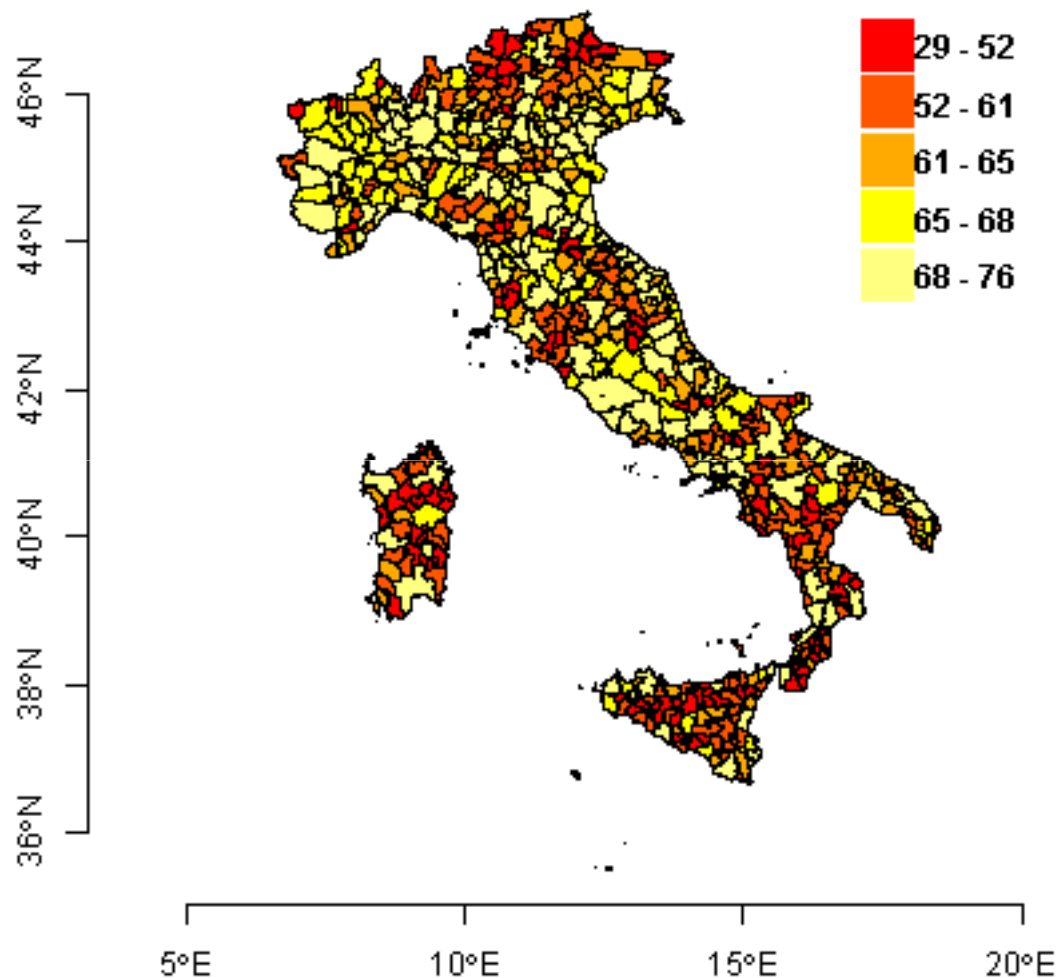Faramondi, Truglia*, (2016) Structural Business Statistics: una nuova ipotesi di stima territoriale del valore aggiunto*, 12° Conferenza Nazionale di Statistica   http://www.istat.it/storage/Conf12File/posterImg/014.jpg

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Number of establishments

Legend:
- 200 - 1300
- 1300 - 2500
- 2500 - 4000
- 4000 - 8300
- 8300 - 374100

Statistics	Value
Min	237
1° Quartile	1495
Median	3117
Mean	7687
3° Quartile	6998
Max	374100

Statistics – Number of Nace2digit by LMA

Number of Nace 2 digit - establishments

Legend:
- 29 - 52
- 52 - 61
- 61 - 65
- 65 - 68
- 68 - 76

Proxy of industrial diversification

Statistics	Value
Min	29
1° Quartile	54.5
Median	63
Mean	60.2
3° Quartile	68
Max	76

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- Istat started with the release of unemployment rate at LMA level, other economic indicators will be released on a regular bases on our web site;

- Since 1991 the number of laws based on LMAs to identify area of intervention has been slowly increasing over time.

- This is the area where most of the effort is devoted.

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- After the work of the Task Force on LMAs harmonisation Eurostat set out grants for LMAs development;

- Seven MSs have been awarded a grant (IT, HU, PL, NL, PT, FI and BG);

- Other insitutes (IAB — Germany, ONS — UK, DARES — France) expressed their interest in being involved in initiatives stemming from these grants;

- Collegues from Denmark, Switzerland, Serbia and Kosovo were present at a workshop held in Nuremberg in mid June;

- Other MSs have expressed their interest in being informed;

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- - Short-term aims
- Further improve the products already delivered to the Task Force on LMA harmonisation;
- Share experiences in the development of LMAs;
- Develop guidelines for a standardised process of LMA creation.
- - Medium-term aims
- Build a community around LMAs to:
  - Increase knowledge on this geography and foster its use;
  - Promote the study of new products on LMAs; Develop together a possibly harmonised functional European geography alternative to administrative geography

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- Eurostat has made available in the CROS portal a web site dedicated to LMAs;
  https://ec.europa.eu/eurostat/cros/content/labour-market-areas_en

- We have improved the script developed during the Task Force and created an R package;

- The R package LabourMarketAreas v. 1.0 is currently freely available in the project website;
  http://www.istat.it/en/archive/182743 together with its documentation;

- Workshop in Nuremberg;

- Further functions will be added by september;

- Soon we will upload it to the Cros portal and CRAN;

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LMAs Training:

- Training at Istat, 27-29 September 2016;

- Share the whole process of LMA development
- See real word examples of the use of such geography;
- Occasion to improve the guidelines on LMA development;

- Further information on project website

Istat

- LMAs are powerful tools to break down a country into meaningful areas at sub-regional level;

- The production of statistics at regular interval of time allows to use LMAs as to powerful tool for policy: LMAs allow to identify the areas where resources are needed and to assess impact of policy;

- The free availability of a tool to develop LMAs and the will of a group of countries to exchange experiences, improve the understanding of LMAs and share guidelines pave the way to use this geography at European level.

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Thank you for your attention

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Becattini G., (1990), "The Marshallian Industrial District as a Socio-Economic Notion", in F. Pyke et al., Industrial Districts and Inter-firm Cooperation in Italy, International Institute for Labor Studies

Coombes M., Bond S., 2008. Travel-to-Work Areas: the 2007 review. London. Office for National Statistics.

Coombes M.G., Green A.E., Openshow S., 1986. An efficient algorithm to generate official statistics report areas: the case of the 1984 Travel-to-Work Areas in Britain. *The Journal of Operational Research Society.* 37(10): 943–953.

Faramondi, Truglia (2016) Structural Business Statistics: una nuova ipotesi di stima territoriale del valore aggiunto, 12° Conferenza Nazionale di Statistica

http://www.istat.it/storage/Conf12File/posterImg/014.jpg

Istat, 1997. *I Sistemi Locali del Lavoro 1991*. Pagg. 235–242. Istituto Poligrafico e Zecca dello Stato. Roma.

Istat, IRPET, 1989. *I Mercati Locali del Lavoro*. Franco Angeli. Milano.

Istat