



Guidelines for production and steps towards harmonisation

The GEOSTAT project Work Package 2: Geostatistics

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WP2 - Geostatistics

- Guidelines
Table of content of guidelines
- Proposals
How to harmonise
a) coding, conversions, metadata, quality descriptions
How to disseminate
b) format, metadata, agreements
population grids 2006
population grids of census 2010/2011
- Examples of datasets
- Timetable for rest of the year
- Input from other WPs, overlaps



Guidelines

- Based on production of grids by partner countries
 - Table of content:
 - 1) **Top down method**
 - Data and methods
 - Testing of methods – examples of produced population grid data
 - Metadata
 - Plans to improve/develop statistical grid data
 - 2) **Bottom up method**
 - Data and methods
 - Testing of methods – examples of produced population grid data
 - Metadata
 - Plans to improve/develop statistical grid data
 - 3) **Mixed method**
 - Data and methods
 - Testing of methods – examples of produced population grid data
 - Metadata
 - Plans to improve/develop statistical grid data -



Guidelines based on examples

- WP2 partners
Austria, Finland, Norway
France, Poland, Portugal
- Other GEOSTAT partners
Estonia, the Netherlands, Slovenia
- Other countries
Sweden, Denmark
Spain, Ireland

Proposals

how to harmonise

- Separate grid net covering whole of Europe by ETRS89_LAEA – harmonised coding of each grid cell, separate column of countrycode
[GEOSTAT_GRID_ETRS89_LAEA_1K available on EFGS website](http://www.efgs.info/data/GEOSTAT-1km-Grid.zip/view)
<http://www.efgs.info/data/GEOSTAT-1km-Grid.zip/view>
- Grid data, which can be joined to the grid net by using harmonised grid codes
- a) examples of grid data of 2006 stored by country
b) national population grid data of the census 2010/2011
- Coding following INSPIRE guidelines of grid data
- Conversions of national grids to European grids are made using data by smallest available grid cells (see Rinas's presentation)



Before the final version of grid data by 27 countries

- Examples of harmonised national datasets (of the year 2006 as *.csv –files) on EFGS website
- Improvement of estimation process of population grid data based on LAU2 data and examples of national grid datasets

Proposals

How to disseminate

- Population grid by each country as *.csv on EFGS web site
 - a) reference year 2006 – examples
 - b) reference year 2010/2011 – gradually all member states
- Population grid of the whole Europe
 - a) JRC -grid
 - b) AIT -grid
 - c) GEOSTAT -grid
- Agreements on
GEOSTAT – EUROSTAT (EU) use
EFGS use
Other use: population grid, population + grid



Timetable of rest of the year concerning each partners of WP2

- Data and methods (each partner) 30.10.2011
-description of production of national population grid data
(improvement of state of the play report)
- Comments on harmonised examples of datasets
30.10.2011
- Data of 2006 harmonised and delivered on EFGS website
following the Finnish example 30.11.2011
- Comment/ideas on quality descriptions, confidentiality
30.10.2011
- Comments and ideas of improvement of datasets
30.10.2011



Overlaps

- Who defines
harmonised codes – the ones on GEOSTAT grid net!?
recommendations on metadata
recommendations on quality descriptions
recommendations on confidentiality rules
- Proposals on business model
- Where are user cases – examples documented

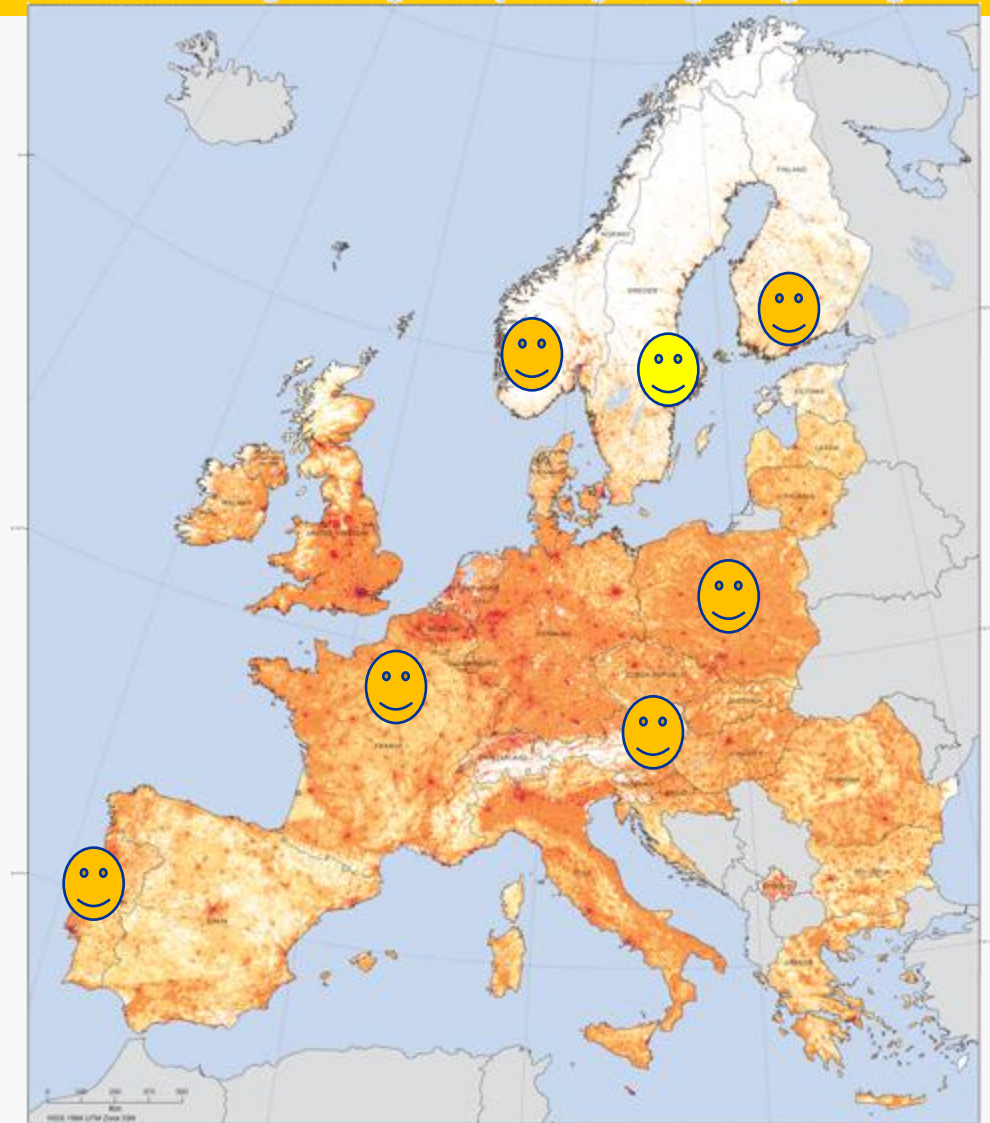


At the end of 2011, Harmonised population grid data of 2006 available in the end of 2011

- WP2 partner countries:
 - Norway
 - Finland
 - France
 - Poland
 - Portugal
- Other GEOSTAT partners
 - Austria, Estonia, Netherlands, Slovenia
- + England and Wales, Sweden, Denmark
- Northern Ireland, Switzerland (2001)

WP2 Partners

- Statistics Finland (WP leader)
- Statistics Austria
- Statistics France
- Statistics Norway
- Statistics Poland
- Statistics Portugal
- MD Mapping, Lars Backer



National grid based data
 Data source: National Statistical Institutes
 Population data based on aggregation of population at geocoded buildings, addresses or road centres to square km grids.
 Register based data are used in Austria, Denmark, Estonia, Finland, the Netherlands, Norway, Slovenia, Sweden and Switzerland and census data in Germany and Northern Ireland.

Country	Area	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Albania	28,748	3,120,000	3,120,000	3,120,000	3,120,000	3,120,000	3,120,000	3,120,000	3,120,000	3,120,000	3,120,000	3,120,000
Andorra	468	78,000	78,000	78,000	78,000	78,000	78,000	78,000	78,000	78,000	78,000	78,000
Austria	83,859	8,500,000	8,500,000	8,500,000	8,500,000	8,500,000	8,500,000	8,500,000	8,500,000	8,500,000	8,500,000	8,500,000
Belgium	30,528	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000
Bulgaria	110,914	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000
Croatia	56,538	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000
Cyprus	9,251	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000
Czechia	78,867	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000
Denmark	43,094	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000
Estonia	45,248	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000
Finland	338,420	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000
France	643,801	65,000,000	65,000,000	65,000,000	65,000,000	65,000,000	65,000,000	65,000,000	65,000,000	65,000,000	65,000,000	65,000,000
Germany	357,021	82,000,000	82,000,000	82,000,000	82,000,000	82,000,000	82,000,000	82,000,000	82,000,000	82,000,000	82,000,000	82,000,000
Greece	131,957	11,500,000	11,500,000	11,500,000	11,500,000	11,500,000	11,500,000	11,500,000	11,500,000	11,500,000	11,500,000	11,500,000
Hungary	103,265	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000	10,500,000
Ireland	70,273	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000
Italy	301,339	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000
Latvia	64,589	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Lithuania	62,685	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Luxembourg	2,586	550,000	550,000	550,000	550,000	550,000	550,000	550,000	550,000	550,000	550,000	550,000
Malta	316	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000
Netherlands	42,764	16,500,000	16,500,000	16,500,000	16,500,000	16,500,000	16,500,000	16,500,000	16,500,000	16,500,000	16,500,000	16,500,000
Norway	385,203	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
Poland	312,685	38,000,000	38,000,000	38,000,000	38,000,000	38,000,000	38,000,000	38,000,000	38,000,000	38,000,000	38,000,000	38,000,000
Portugal	246,804	11,000,000	11,000,000	11,000,000	11,000,000	11,000,000	11,000,000	11,000,000	11,000,000	11,000,000	11,000,000	11,000,000
Romania	237,501	22,000,000	22,000,000	22,000,000	22,000,000	22,000,000	22,000,000	22,000,000	22,000,000	22,000,000	22,000,000	22,000,000
Slovakia	48,846	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000
Slovenia	20,271	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Spain	505,992	45,000,000	45,000,000	45,000,000	45,000,000	45,000,000	45,000,000	45,000,000	45,000,000	45,000,000	45,000,000	45,000,000
Sweden	450,295	9,500,000	9,500,000	9,500,000	9,500,000	9,500,000	9,500,000	9,500,000	9,500,000	9,500,000	9,500,000	9,500,000
Switzerland	41,284	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000
Turkey	783,562	75,000,000	75,000,000	75,000,000	75,000,000	75,000,000	75,000,000	75,000,000	75,000,000	75,000,000	75,000,000	75,000,000
Ukraine	603,500	45,000,000	45,000,000	45,000,000	45,000,000	45,000,000	45,000,000	45,000,000	45,000,000	45,000,000	45,000,000	45,000,000
United Kingdom	244,820	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000
USA	9,833,517	300,000,000	300,000,000	300,000,000	300,000,000	300,000,000	300,000,000	300,000,000	300,000,000	300,000,000	300,000,000	300,000,000

Estimated grid based data
 Data source: European Commission - JRC
 Population data based on disaggregation of population at 1:50,000 scale through Census Land Cover 2010 data to square km grids.

Estimated data are used in Belgium, Bulgaria, Croatia, Czech Republic, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Poland, Portugal, Romania, Slovakia, Spain and United Kingdom (and Northern Ireland).