Urban-rural relations in Europe
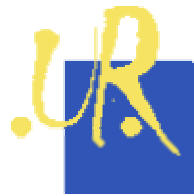
Maps, graphs and tables referred to in Chapter 3

	Area	Population in 1999	GDP$_{PPS}$ in 1999
EU 15+2	77 %	79 %	95,20 %
EU 10+2	23 %	21 %	4,80 %
In total	4 694 523 km²	494 945 720 inh.	9 357 099 mill. Euro

Table 3.1. The area, population and GDP$_{PPS}$ in total (29 countries) and according to relative shares (EU 15+2, EU 10+2).

The following is a matrix table showing main components of national approaches. Column groups: Delim. Approach (Conceptual (1), Government decision); Criterions – Population (Size of largest centre/urban unit (2), Size of spatial unit (3), Density (4)); Other ((Non-) agricultural share of workforce, Commuting/Travel-to-work, Central place function, Legally established (city/town/village) (5)); Spatial reference unit – Administrative (City/town proper/locality, Municipality/commune/ward, Parishes, municipality sub-districts (6)), Other (Commuter catchment area, Morphological unit (i.e. built-up area)); Population – Proportion (%) (Urban, Rural), Ref. year (Year).

Country	Urban	Rural	Year
Austria	67	33	2001
Belgium	100	0	2001
Denmark	85	15	1998
Finland	81	19	1995
France (A)	75	25	1999
Germany	85	15	2001
Greece	60	40	1991
Ireland	58	42	1996
Italy (B)	75	25	1986
Luxembourg	92	8	2000
Netherlands	80	20	1999
Portugal	70	30	2001
Spain	75	25	2001
Sweden	84	16	1995
United Kingdom (C)	72	28	2001
Norway	77	23	2002
Switzerland	68	32	2000
Cyprus	69	31	2001
Czech Republic	79	21	2001
Estonia	69	31	2000
Hungary	65	35	2002
Latvia	69	31	1998
Lithuania	68	32	1998
Malta	91	9	2000
Poland	62	38	2002
Slovakia	56	44	2001
Slovenia	51	49	2002
Bulgaria	68	32	2000
Romania	53	47	2002
OECD	-	-	-

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(1) The delimitation of urban and rural population by government decision may sometimes also be based on conceptional frameworks.

(2) Threshold 2,000 inhabitants always.

(3) Note! The following thresholds apply for different reference units. Denmark/Finland/Norway/Sweden: 200 inhabitants,
Germany: around 100,000 inhabitants, France: 2,000 inhabitants, Spain 10,000 inhabitants, Czech Republic: 2,000 inhabitants,
Malta: 1,500 inhabitants, Slovakia: 5,000 inhabitants, Switzerland: 10,000 inhabitants, Ireland 1,500 inhabitants.

(4) Germany: 150 inhabitants/km², Netherlands: 500 addresses/km², Portugal: 100 inhabitants/km²,
OECD: 150 inhabitants/km² (Eurostat modified: 100 inhabitants/km²).

(5) Cyprus: Nicosia and district towns covered by local town plans.

(6) Netherland: neighbourhoods comprising "buurten", Portugal: parishes (freguesias).

(A) Excluding Guadeloupe, Martinique, Guyane and Reunion.

(B) The list of criteria also includes active population (>14 years, women), age cohort > 14 years,
average number of family members, number of private owned dwellings and penetration rate of phone contracts.

(C) Excluding Northern Ireland, Scotland and Wales. The set of criteria for England also includes ratio of active and inactive population,
use of public transport and share of ethnically non-white people.

- = No data
* = Not available

Table 3.2. Main components of national approaches on delimitation of urban and rural population.
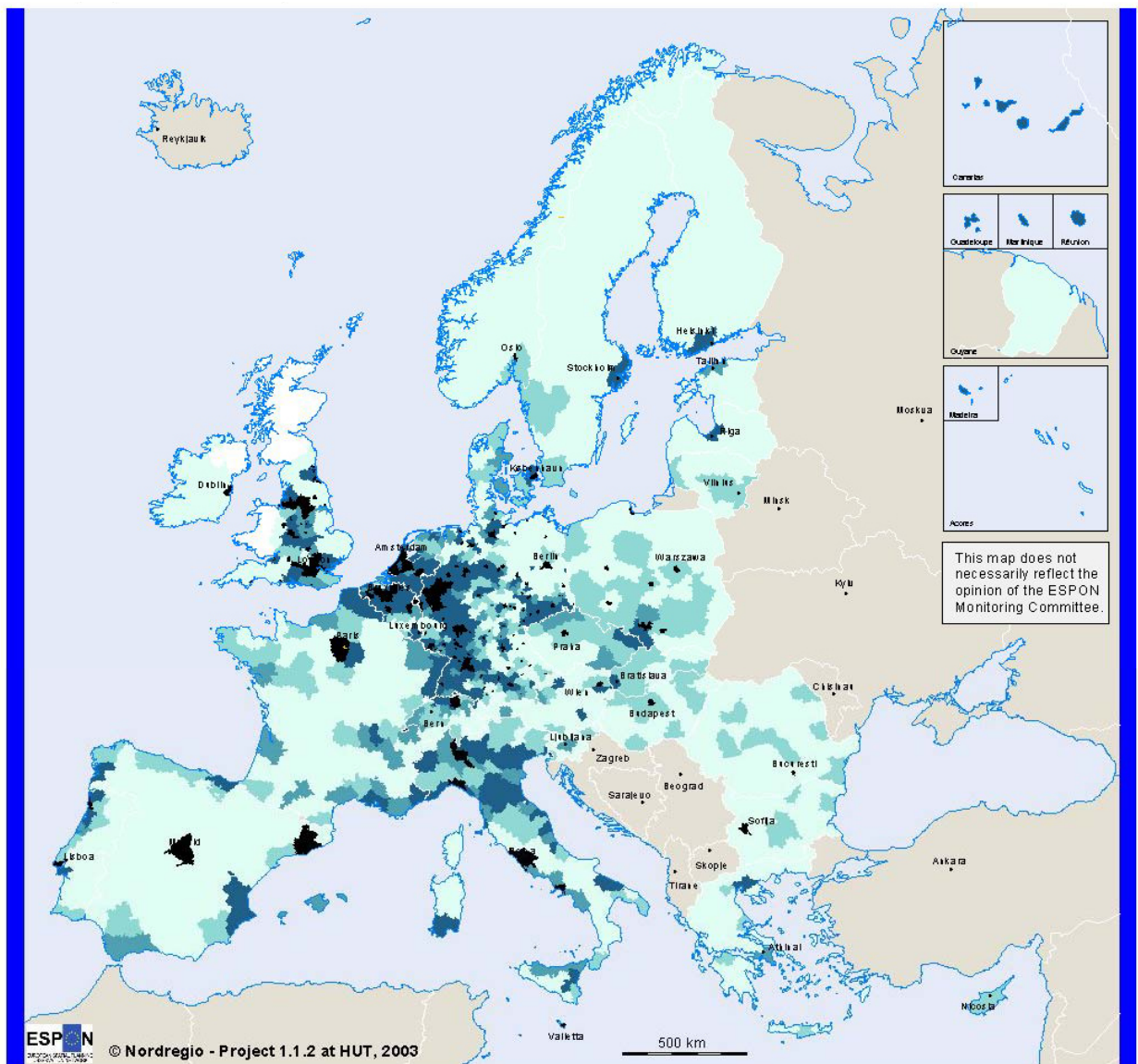
Urban inhabitants/km²

- > 500
- 150 - 500
- 100 - 150
- 50 - 100
- < 50

No data

Due to data being based on national classifications, figures between countries are not comparable.

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Map 3.1. Urban population density based on national classifications.
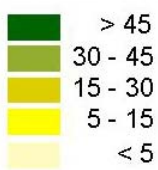
Legend and labels on map:

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This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Rural inhabitants/km²

- \> 45
- 30 - 45
- 15 - 30
- 5 - 15
- < 5

No data

Due to data being based on national classifications, figures between countries are not comparable.

Geographical Base: Eurostat GISCO
Origin of data: National Statistical Offices
Source: Nordregio

500 km

Map 3.2. Rural population density based on national classifications.

	NUTS3 regions	High rurality, high density	High rurality, medium density	High rurality, low density	Medium rurality, high density	Medium rurality, medium density	Medium rurality, low density	Low rurality, high density	Low rurality, medium density	Low rurality, low density	Total	Regions with contradictory values (in red)
AT	Count	0	2	20	2	1	3	7	0	0	35	7
	% of regions	0	6	57	6	3	8	20	0	0	100	20
BE	Count	0	0	5	0	0	0	18	3	17	43	20
	% of regions	0	0	12	0	0	0	42	7	39	100	46
BG	Count	0	2	15	1	1	4	3	1	1	28	9
	% of regions	0	7	53	4	4	14	10	4	4	100	33
CH	Count	5	1	9	0	0	0	8	1	2	26	9
	% of regions	19	4	34	0	0	0	31	4	8	100	35
CY	Count	0	0	0	0	1	0	0	0	0	1	0
	% of regions	0	0	0	0	100	0	0	0	0	100	0
CZ	Count	2	0	6	0	0	1	3	1	1	14	5
	% of regions	14	0	43	0	0	7	22	7	7	100	35
DE	Count	1	1	158	0	0	4	180	34	63	441	103
	% of regions	0	0	36	0	0	1	41	8	14	100	23
DK	Count	0	2	8	1	0	0	4	0	0	15	3
	% of regions	0	13	53	7	0	0	27	0	0	100	20
EE	Count	1	0	2	0	0	0	1	0	1	5	2
	% of regions	20	0	40	0	0	0	20	0	20	100	40
ES	Count	3	1	29	0	0	1	16	0	0	52	5
	% of regions	6	2	56	0	0	2	31	0	0	100	10
FI	Count	3	3	7	3	0	0	4	0	0	20	9
	% of regions	15	15	35	15	0	0	20	0	0	100	45
FR	Count	3	2	58	8	1	3	20	0	1	100	17
	% of regions	3	2	58	8	1	3	20	0	1	100	17
GR	Count	1	2	32	1	2	6	3	1	3	51	14
	% of regions	2	4	62	2	4	12	6	2	6	100	28
HU	Count	2	3	8	0	0	3	1	1	2	20	11
	% of regions	10	15	40	0	0	15	5	5	10	100	55
IE	Count	1	0	6	0	0	0	1	0	0	8	1
	% of regions	13	0	75	0	0	0	12	0	0	100	13
IT	Count	10	5	27	2	1	4	28	7	19	103	47
	% of regions	10	5	26	2	1	4	27	7	18	100	46
LT	Count	0	0	7	0	0	0	3	0	0	10	0
	% of regions	0	0	70	0	0	0	30	0	0	100	0
LU	Count	0	0	0	0	1	0	0	0	0	1	0
	% of regions	0	0	0	0	100	0	0	0	0	100	0
LV	Count	0	0	4	0	0	0	1	0	0	5	0
	% of regions	0	0	80	0	0	0	20	0	0	100	0
NL	Count	0	1	19	2	1	1	13	2	1	40	7
	% of regions	0	3	47	5	3	3	32	5	2	100	18
NO	Count	1	0	9	3	1	0	5	0	0	19	4
	% of regions	6	0	47	16	5	0	26	0	0	100	22
PL	Count	4	4	16	2	2	5	7	2	2	44	19
	% of regions	9	9	36	5	4	11	16	5	5	100	44
PT	Count	5	1	14	2	0	0	5	0	1	28	9
	% of regions	18	4	50	7	0	0	18	0	3	100	32
RO	Count	4	6	15	2	3	3	4	0	5	42	20
	% of regions	9	14	36	5	7	7	10	0	12	100	47
SE	Count	6	2	8	2	0	0	3	0	0	21	10
	% of regions	28	10	38	10	0	0	14	0	0	100	48
SI	Count	0	2	4	1	1	1	2	1	0	12	5
	% of regions	0	17	33	8	8	8	18	8	0	100	41
SK	Count	1	2	1	1	1	1	1	0	0	8	5
	% of regions	12,5	25	12,5	12,5	12,5	12,5	12,5	0	0	100	62,5
UK	Count	13	5	17	2	0	0	55	1	0	93	21
	% of regions	14	5	19	2	0	0	59	1	0	100	22
Total	Count	66	47	504	35	17	40	396	55	119	1279	362
	% of regions	6	4	39	3	1	3	31	4	9	100	29

Table 3.3. Relative rurality in relation to national averages of population density.

|		High rurality, high share of artificial surfaces	High rurality, medium share of artificial surfaces	High rurality, low share of artificial surfaces	Medium rurality, high share of artificial surfaces	Medium rurality, medium share of artificial surfaces	Medium rurality, low share of artificial surfaces	Low rurality, high share of artificial surfaces	Low rurality, medium share of artificial surfaces	Low rurality, low share of artificial surfaces	Total	Regions with contradictory values (in red)
AT	Count	4	0	18	3	1	2	7	0	0	35	9
	% of regions	11	0	51	9	3	6	20	0	0	100	26
BE	Count	0	0	5	0	0	0	21	5	12	43	17
	% of regions	0	0	11	0	0	0	49	12	28	100	40
BG	Count	8	1	8	3	0	3	5	0	0	28	15
	% of regions	28	4	28	11	0	11	18	0	0	100	54
CH	Count	3	0	12	0	0	0	8	1	2	26	6
	% of regions	11	0	46	0	0	0	31	4	8	100	23
CZ	Count	2	2	4	0	0	1	3	2	0	14	7
	% of regions	14	14	29	0	0	7	22	14	0	100	49
DE	Count	6	5	149	0	0	4	190	29	58	441	102
	% of regions	1	1	34	0	0	1	43	7	13	100	23
DK	Count	1	2	7	1	0	0	4	0	0	15	4
	% of regions	7	13	46	7	0	0	27	0	0	100	27
EE	Count	0	0	3	0	0	0	2	0	0	5	0
	% of regions	0	0	60	0	0	0	40	0	0	100	0
ES	Count	4	2	27	0	0	1	14	0	1	49	8
	% of regions	8	4	55	0	0	2	29	0	2	100	16
FI	Count	3	1	9	3	0	0	4	0	0	20	7
	% of regions	15	5	45	15	0	0	20	0	0	100	35
FR	Count	8	6	49	9	2	1	17	2	2	96	28
	% of regions	8	6	49	9	2	1	17	2	2	100	28
GR	Count	5	1	26	2	0	7	3	1	2	47	18
	% of regions	11	2	56	4	0	15	6	2	4	100	38
HU	Count	5	3	5	0	0	3	1	1	2	20	14
	% of regions	25	15	25	0	0	15	5	5	10	100	70
IE	Count	1	0	6	0	0	0	1	0	0	8	1
	% of regions	12,5	0	75	0	0	0	12,5	0	0	100	12,5
IT	Count	9	3	30	3	1	3	29	4	21	103	43
	% of regions	9	3	29	3	1	3	28	4	20	100	42
LT	Count	1	2	4	0	0	0	2	1	0	10	4
	% of regions	10	20	40	0	0	0	20	10	0	100	40
LU	Count	0	0	0	0	1	0	0	0	0	1	0
	% of regions	0	0	0	0	100	0	0	0	0	100	0
LV	Count	0	0	4	0	0	0	1	0	0	5	0
	% of regions	0	0	80	0	0	0	20	0	0	100	0
NL	Count	0	4	16	1	3	0	15	0	1	40	6
	% of regions	0	10	40	2,5	7,5	0	37,5	0	2,5	100	15
PL	Count	5	4	15	2	0	7	9	0	2	44	20
	% of regions	11	9	34	5	0	16	20	0	5	100	46
PT	Count	3	3	14	2	0	0	5	0	1	28	9
	% of regions	11	11	50	7	0	0	18	0	3	100	32
RO	Count	11	10	4	3	1	4	1	2	6	42	36
	% of regions	26	24	10	7	2	10	2	5	14	100	86
SE	Count	8	3	5	2	0	0	3	0	0	21	13
	% of regions	38	14	24	10	0	0	14	0	0	100	62
SI	Count	1	1	4	1	1	1	2	1	0	12	5
	% of regions	8,3	8,3	33	8,3	8,3	8,3	17	8,3	0	100	415
SK	Count	2	0	2	1	1	1	1	0	0	8	4
	% of regions	25	0	25	12,5	12,5	12,5	12,5	0	0	100	50
UK	Count	18	2	15	2	0	0	55	1	0	93	23
	% of regions	20	2	16	2	0	0	59	1	0	100	25
Total	Count	108	55	441	38	11	38	403	50	110	1307	399
	% of regions	8	4	34	3	1	3	31	4	8	100	31

Table 3.4. Relative rurality in relation to national averages of the share of artificial surfaces.

		High rurality, high share of agricultural land use	High rurality, medium share of agricultural land use	High rurality, low share of agricultural land use	Medium rurality, high share of agricultural land use	Medium rurality, medium share of agricultural land use	Medium rurality, low share of agricultural land use	Low rurality, high share of agricultural land use	Low rurality, medium share of agricultural land use	Low rurality, low share of agricultural land use	Total	Regions in with contradictory values (in red)
AT	Count	10	2	10	1	1	4	2	3	2	35	22
	% of regions	29	6	29	3	3	10	6	8	6	100	62
BE	Count	3	0	2	0	0	0	17	11	10	43	30
	% of regions	7	0	5	0	0	0	39	26	23	100	70
BG	Count	10	1	6	2	2	2	1	1	3	28	13
	% of regions	35	4	21	7	7	7	4	4	11	100	47
CH	Count	9	1	5	0	0	0	8	0	3	26	14
	% of regions	35	4	19	0	0	0	31	0	11	100	54
CZ	Count	3	4	1	0	1	0	0	2	3	14	7
	% of regions	21	29	7	0	7	0	0	14	22	100	50
DE	Count	65	47	48	0	3	1	65	48	164	441	209
	% of regions	14	10	11	0	1	1	15	11	37	100	48
DK	Count	0	10	0	0	1	0	0	1	3	15	11
	% of regions	0	66	0	0	7	0	0	7	20	100	73
EE	Count	2	0	1	0	0	0	0	1	1	5	2
	% of regions	40	0	20	0	0	0	0	20	20	100	40
ES	Count	8	8	17	1	0	0	2	5	8	49	33
	% of regions	16	16	35	2	0	0	4	11	16	100	68
FI	Count	6	1	6	3	0	0	4	0	0	20	14
	% of regions	30	5	30	15	0	0	20	0	0	100	70
FR	Count	34	10	19	4	2	6	4	5	12	100	48
	% of regions	34	10	19	4	2	6	4	5	12	100	48
GR	Count	11	7	14	4	0	4	3	2	1	46	34
	% of regions	24	15	30	9	0	9	7	4	2	100	74
HU	Count	1	7	5	1	2	0	2	1	1	20	16
	% of regions	5	35	25	5	10	0	10	5	5	100	80
IE	Count	4	2	1	0	0	0	0	0	1	8	3
	% of regions	50	25	12,5	0	0	0	0	0	12,5	100	37,5
IT	Count	27	6	9	2	1	4	20	11	23	103	52
	% of regions	27	6	9	2	1	4	19	11	22	100	50
LT	Count	1	5	1	0	0	0	0	2	1	10	8
	% of regions	10	50	10	0	0	0	0	20	10	100	80
LU	Count	0	0	0	0	1	0	0	0	0	1	0
	% of regions	0	0	0	0	100	0	0	0	0	100	0
LV	Count	2	0	2	0	0	0	0	0	1	5	2
	% of regions	40	0	40	0	0	0	0	0	20	100	40
NL	Count	11	8	1	1	3	0	0	6	10	40	16
	% of regions	28	20	2,5	2,5	7	0	0	15	25	100	40
PL	Count	10	9	5	1	5	3	0	3	8	44	21
	% of regions	23	21	11	2	11	7	0	7	18	100	48
PT	Count	4	5	11	0	0	2	0	5	1	28	23
	% of regions	14	18	39	0	0	8	0	18	4	100	82
RO	Count	10	5	10	3	1	4	3	0	6	42	25
	% of regions	26	12	24	7	2	10	7	0	14	100	60
SE	Count	5	3	8	1	1	0	1	2	0	21	15
	% of regions	23	14	38	5	5	0	5	10	0	100	72
SI	Count	3	0	3	1	0	2	0	1	2	12	7
	% of regions	25	0	25	8	0	17	0	8	17	100	58
SK	Count	2	0	2	0	1	2	0	1	0	8	5
	% of regions	25	0	25	0	12,5	25	0	12,5	0	100	62,5
UK	Count	32	3	0	2	0	0	13	7	36	94	25
	% of regions	34	3	0	2	0	0	14	8	39	100	27
Total	Count	273	144	187	27	25	34	145	118	300	1253	655
	% of regions	22	11	15	2	2	3	12	9	24	100	52

Table 3.5. Relative rurality in relation to national averages of the share of agricultural land use.
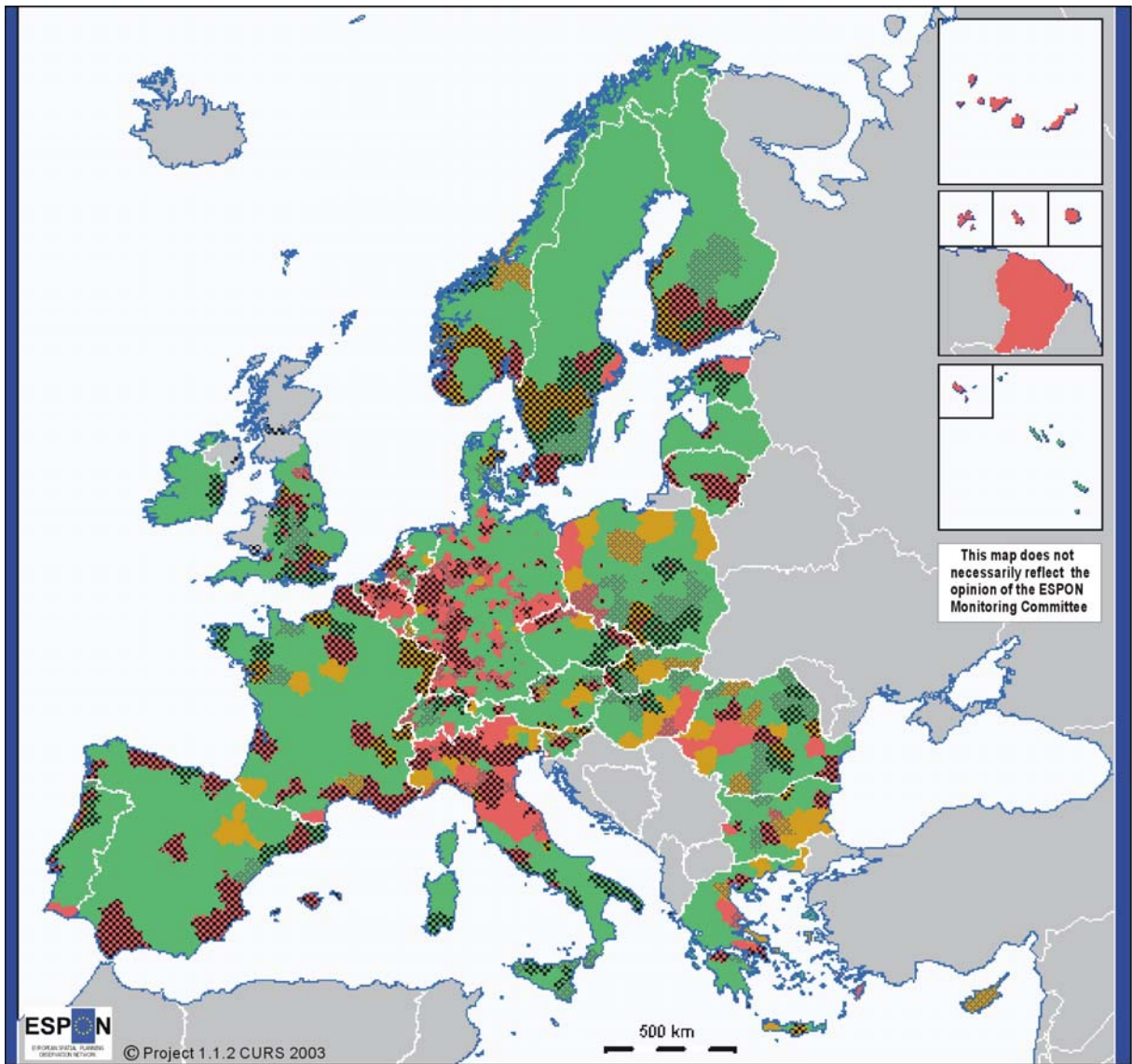
Relative rurality according to national classification

- 🟥 Low   (577)
- 🟧 Medium   (92)
- 🟩 High   (618)

Relative rurality: share of rural population, index country average=100
< 90 low (urban)
90-110 medium (composite)
>110 high (rural)

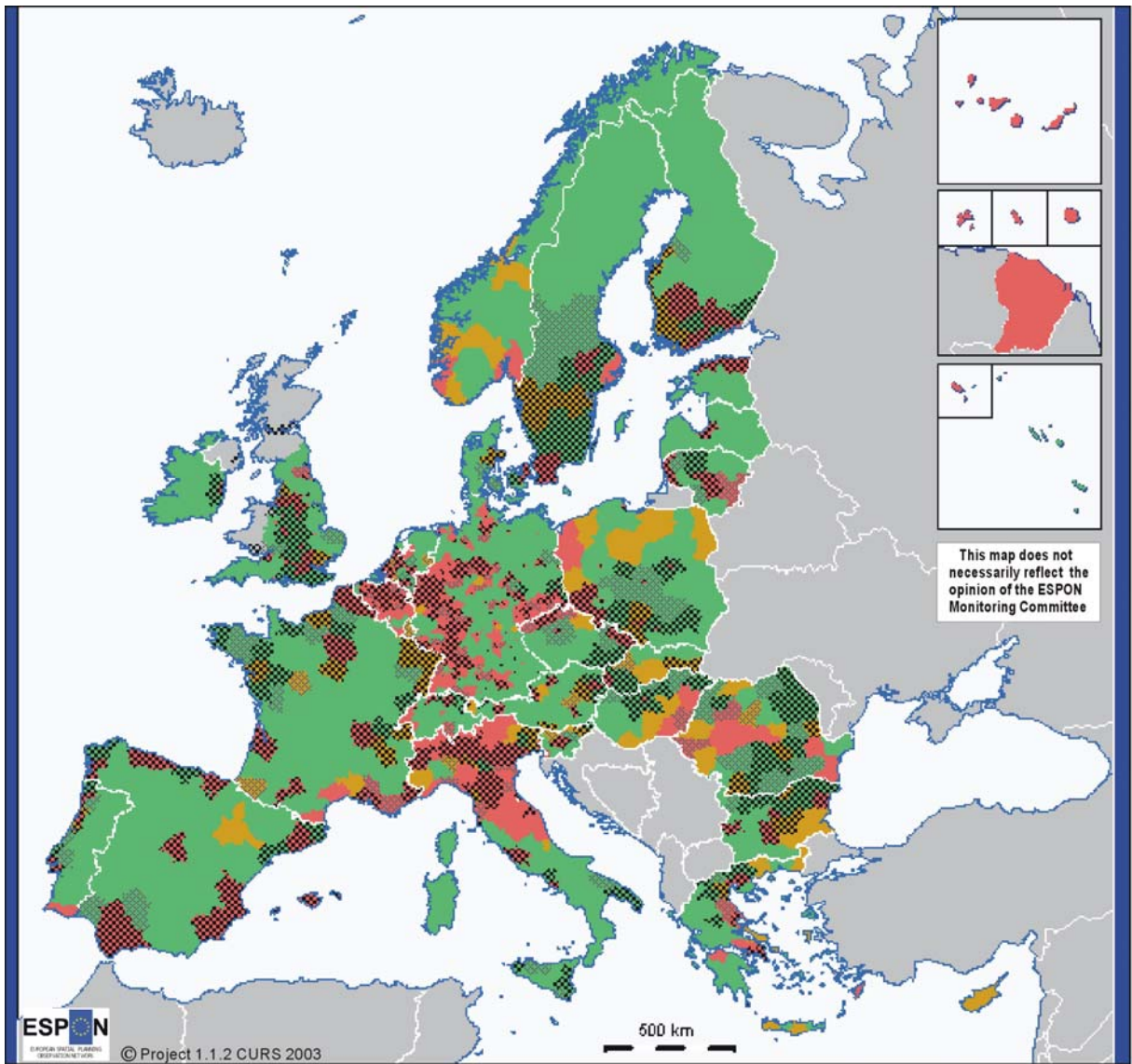**Population density index, 100 = national average**
- ▨ 111 - 18 708   (511 NUTS3 regions)
- ▧ 90 -   110   (120)
- □ 3 -   89   (687)

Map 3.3. Relative rurality in relation to national averages of population density

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee

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Artificial surfaces:
  Origin of data: Corine Land Cover 90
Source: ESPON Data Base

Relative rurality:
  Origin of data: National Statistical Offices
  Time reference: 1985-2001
Source of data: Nordregio

Relative rurality according to national classification

- Low   (577 NUTS3 regions)
- Medium   (92)
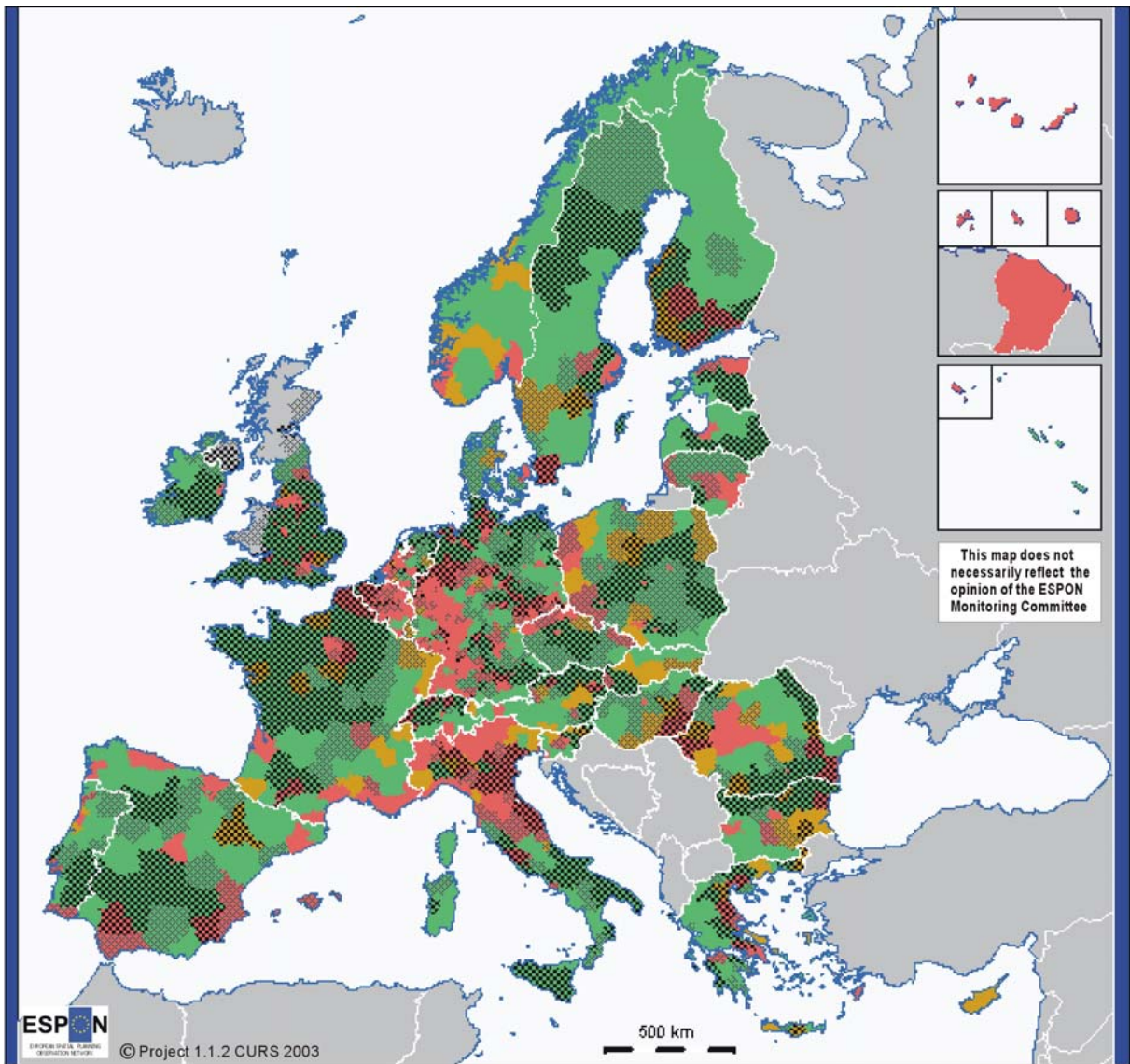- High   (618)

Relative rurality: share of rural population, index country average=100
< 90 low (urban)
90-110 medium (composite)
>110 high (rural)

Index for the share of artificial surfaces, 100 = national average

- 111 - 3 034   (564 NUTS3 regions)
- 90 -   110   (170)
- 2 -   89   (611)

Map 3.4. Relative rurality in relation to national averages of the share of artificial surfaces

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee

ESPON
EUROPEAN SPATIAL PLANNING OBSERVATION NETWORK
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500 km

© EuroGeographics Association for the administrative boundaries

Agricultural land use:
Origin of data: Corine Land Cover 90
Source: ESPON Data Base

Relative rurality:
Origin of data: National Statistical Offices
Time reference: 1985-2001
Source of data: Nordregio

Relative rurality according to national classifications

🟥	Low	(577 NUTS3 regions)
🟧	Medium	(92)
🟩	High	(618)

Relative rurality: share of rural population, index country average=100
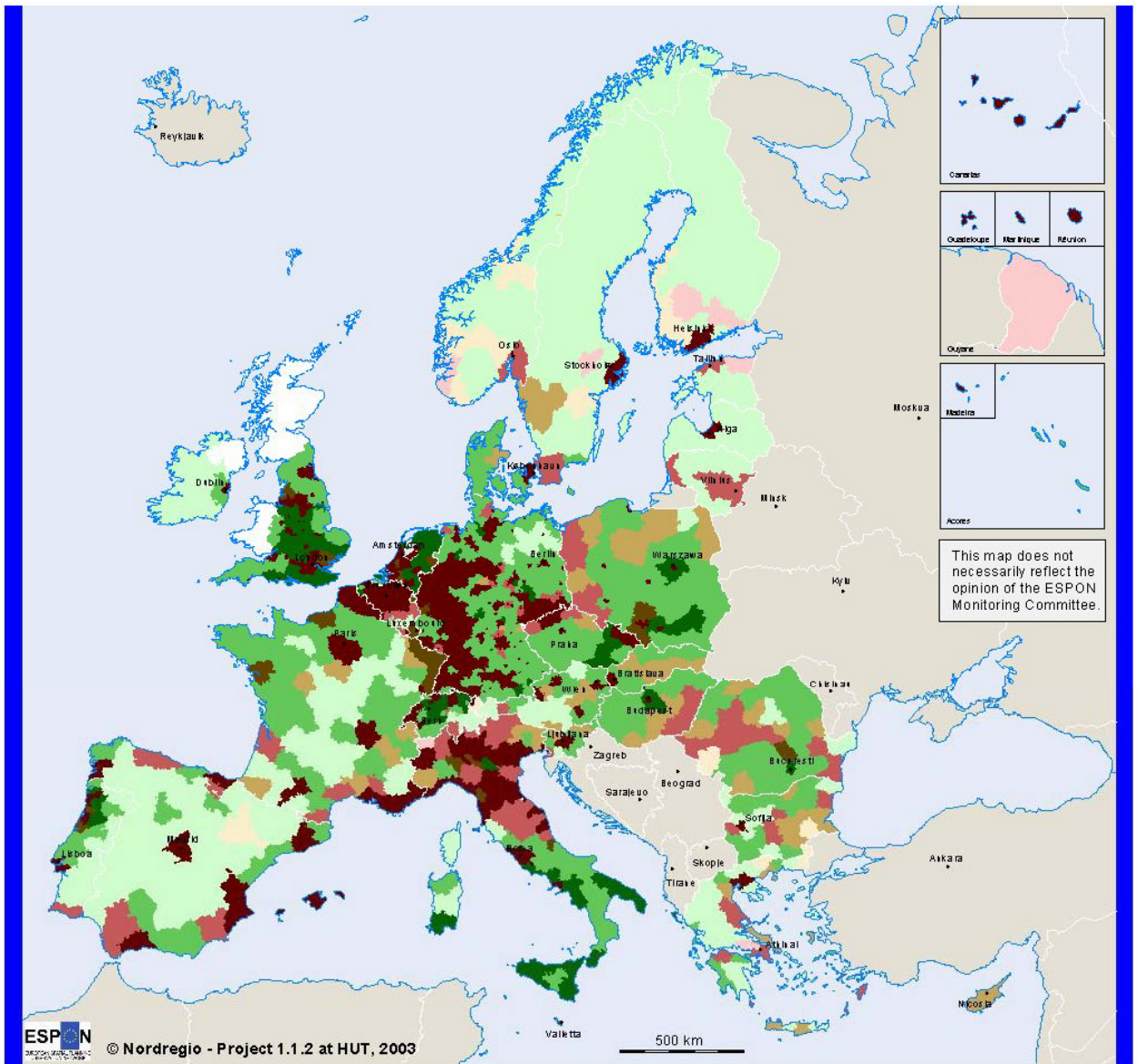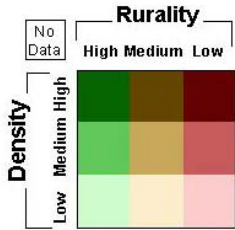< 90 low (urban)
90-110 medium (composite)
>110 high (rural)

Index for the share of agricultural land use, 100 = national average

▦	111 - 423	(455 NUTS3 regions)
▨	90 - 110	(295)
☐	1 - 89	(541)

Map 3.5. Relative rurality in relation to national averages of the share of agricultural land use

Reykjavik

Oslo
Stockholm
Helsinki
Tallinn
Riga
Vilnius
Minsk
Moskva
Kyiv
Dublin
Amsterdam
Berlin
Warszawa
København
London
Luxembourg
Praha
Paris
Bratislava
Wien
Budapest
Chisinau
Bucuresti
Ljubljana
Zagreb
Beograd
Sarajevo
Sofia
Skopje
Tirane
Ankara
Madrid
Lisboa
Athinai
Valletta
Nicosia

ESPON

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500 km

Canarias
Guadeloupe   Martinique   Réunion
Guyane
Madeira
Acores

This map does not
necessarily reflect the
opinion of the ESPON
Monitoring Committee.

Geographical Base: Eurostat GISCO
Origin of data: National Statistical Offices
Source: Nordregio

Rurality
No Data
High Medium Low

Density
Medium High   High
Low   Medium

NUTS 3 regions:

Predominantly urban
Densely populated
Medium density
Sparsely populated

Intermediate
Densely populated
Medium density
Sparsely populated

Predominantly rural
Densely populated
Medium density
Sparsely populated

Rurality:
Share of rural population, index country average = 100
High: > 110, medium: 90 - 110, low: < 90
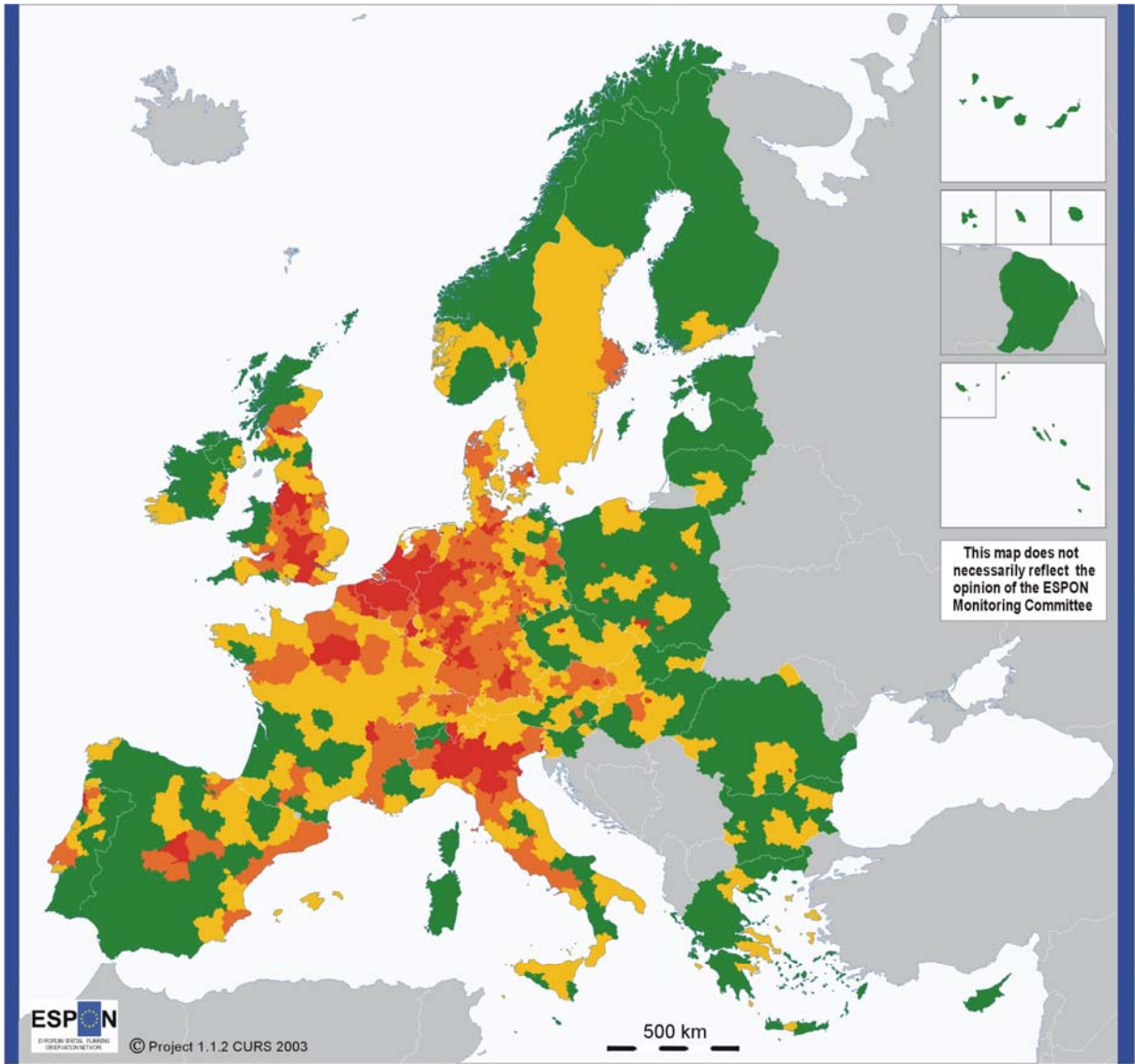
Density:
Population density (inhabitants/km²)
High: > 150, medium: 50 - 150, low: < 50

Map 3.6. Urban–rural population in Europe based on national classifications

This map does not
necessarily reflect the
opinion of the ESPON
Monitoring Committee

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500 km

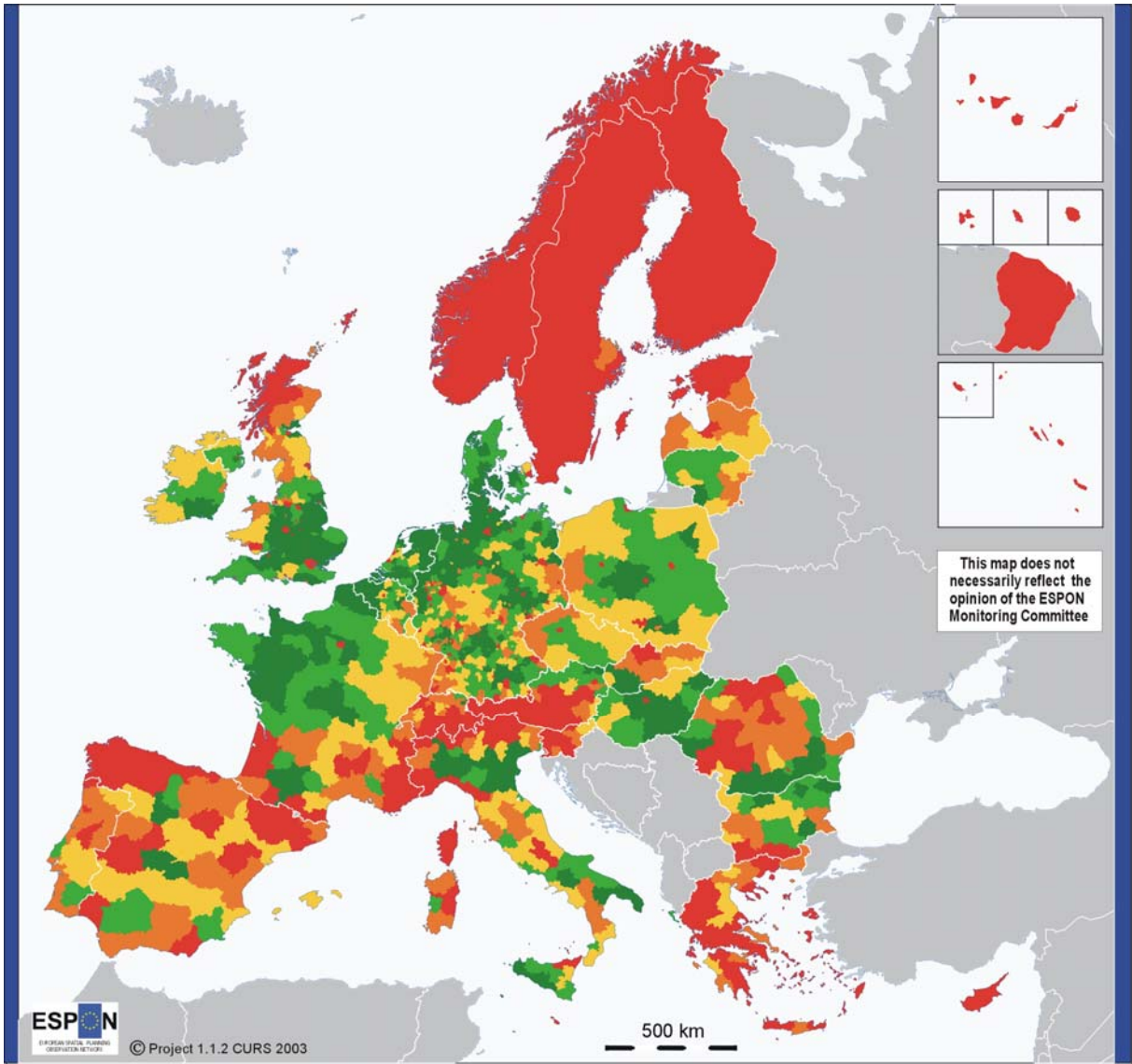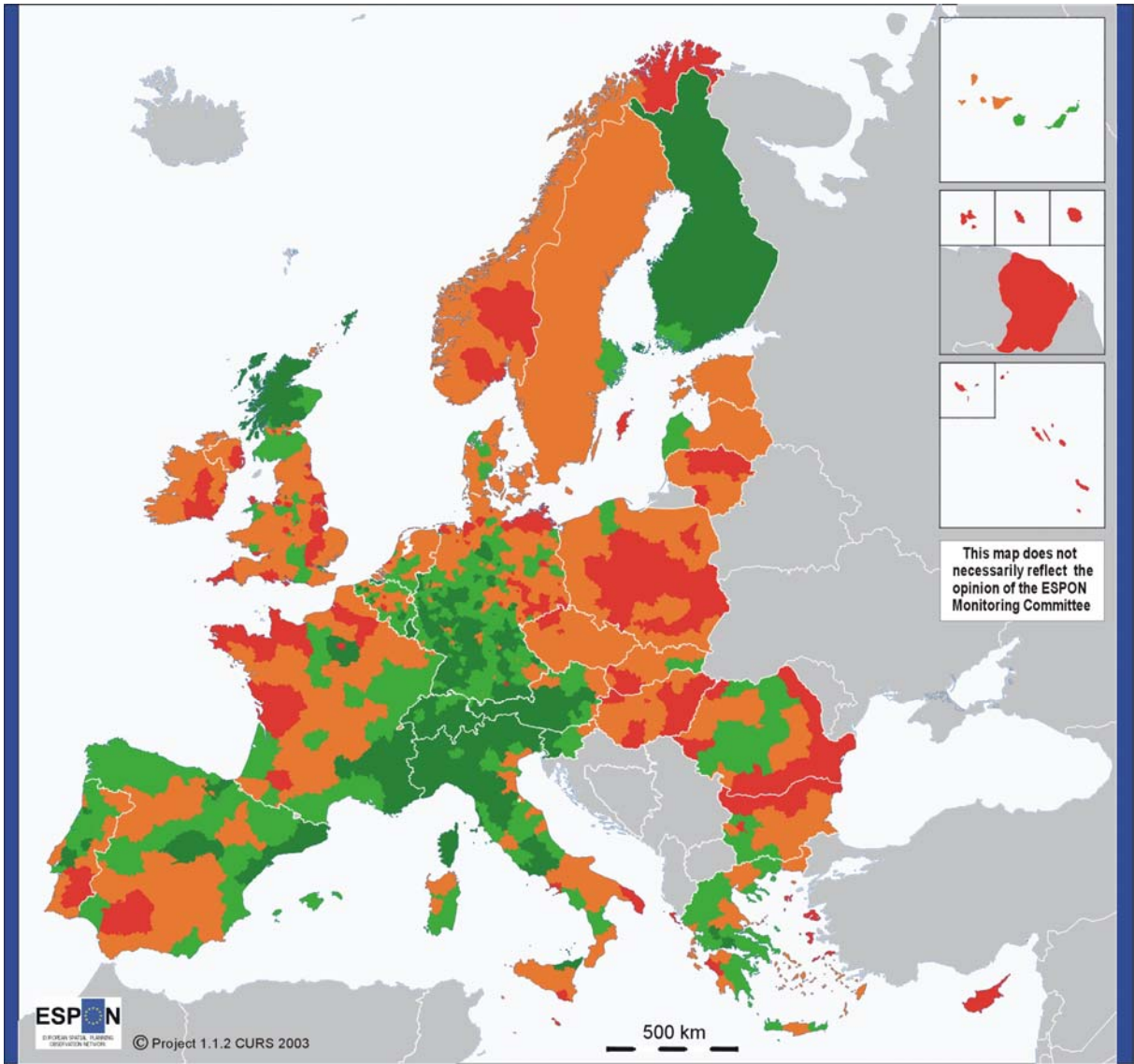© EuroGeographics Association for the administrative boundaries

Land cover types:
Origin of data: EEA, Corine Land Cover 90

Other data:
Origin of data: EU15 and CC's: Eurostat
Norway and Switzerland:
National Statistical Offices
Time reference: 1999

Source: ESPON Data Base

Factor 1 - urban territories

- 0,74 - 1,52 (328 NUTS3 regions)
- 0,23 - 0,73 (330)
- -0,44 - 0,22 (333)
- -8 - -0,43 (338)

Variables	Legend
Less urbanised territories	
↕	
More urbanised territories	

Map 3.7. Factor 1 – Urban territories

Factor 2 - High agricultural pressure

- ■ 0,8 - 2,8 (294 NUTS3 regions)
- ■ 0,3 - 0,7 (263)
- ■ -0,2 - 0,2 (238)
- ■ -0,7 - -0,1 (205)
- ■ -7,6 - -0,6 (329)

Variables	Loadings of factor 2	Legend
Percentage of agricultural area	0,884	
↕		
Percentage of forestry area	-0,457	

Map 3.8. Factor 2 – High agricultural pressure

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This map does not necessarily reflect the opinion of the ESPON Monitoring Committee

Land cover types:
Origin of data: EEA, Corine Land Cover 90

Other data:
Origin of data: EU15 and CC's: Eurostat
Norway and Switzerland:
National Statistical Offices
Time reference:1999

Source: ESPON Data Base

Factor 3 - Forestry

🟥	0,9 - 6,1	(222)
🟧	0 - 0,9	(461)
🟩	-0,8 - 0	(364)
🟩	-4,9 - -0,8	(282)

Variables	Loadings of factor 3	Legend
High percentage of forestry ↕ Low percentage of forestry	-0,649	

Map 3.9. Factor 3 – Forestry
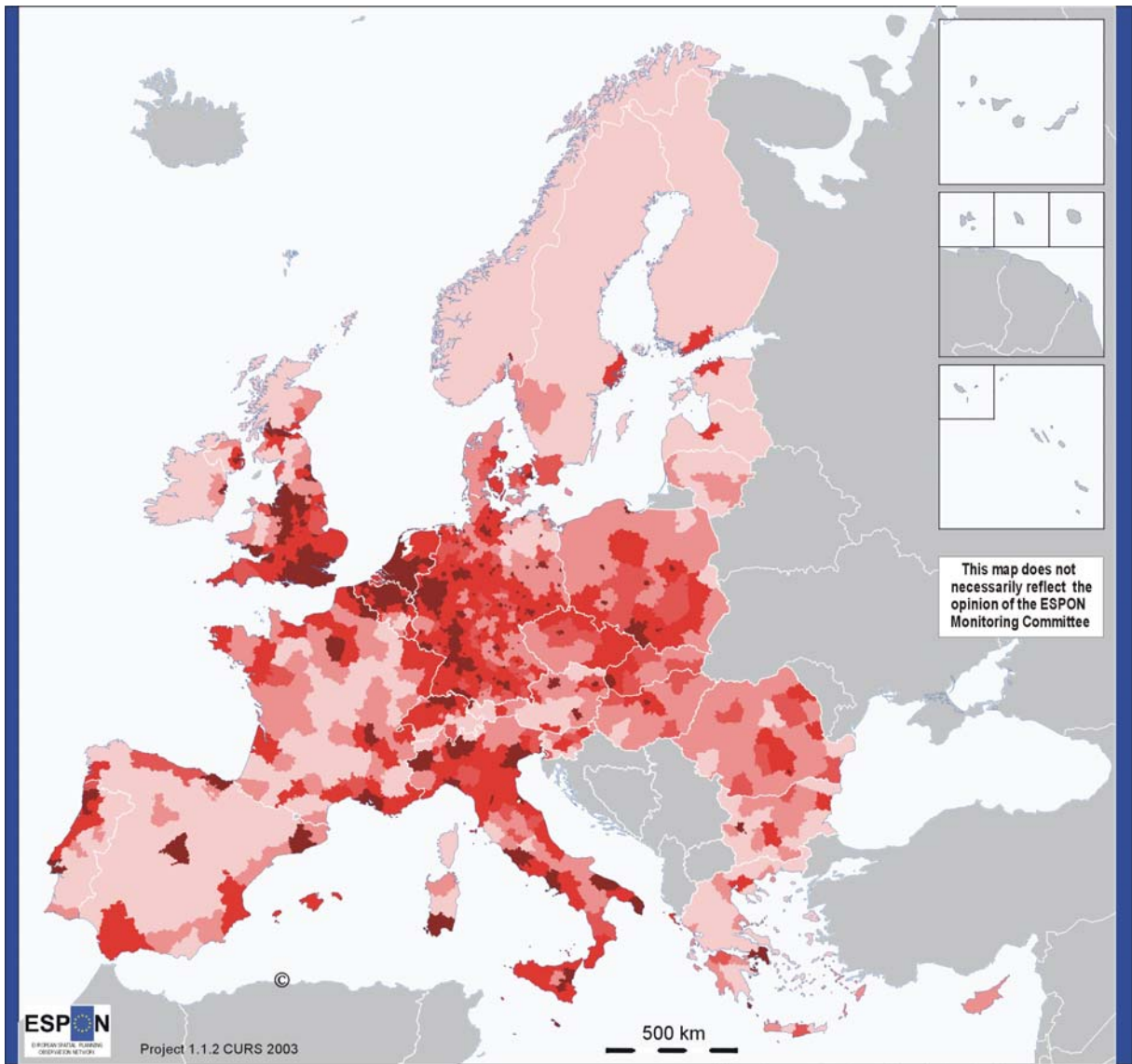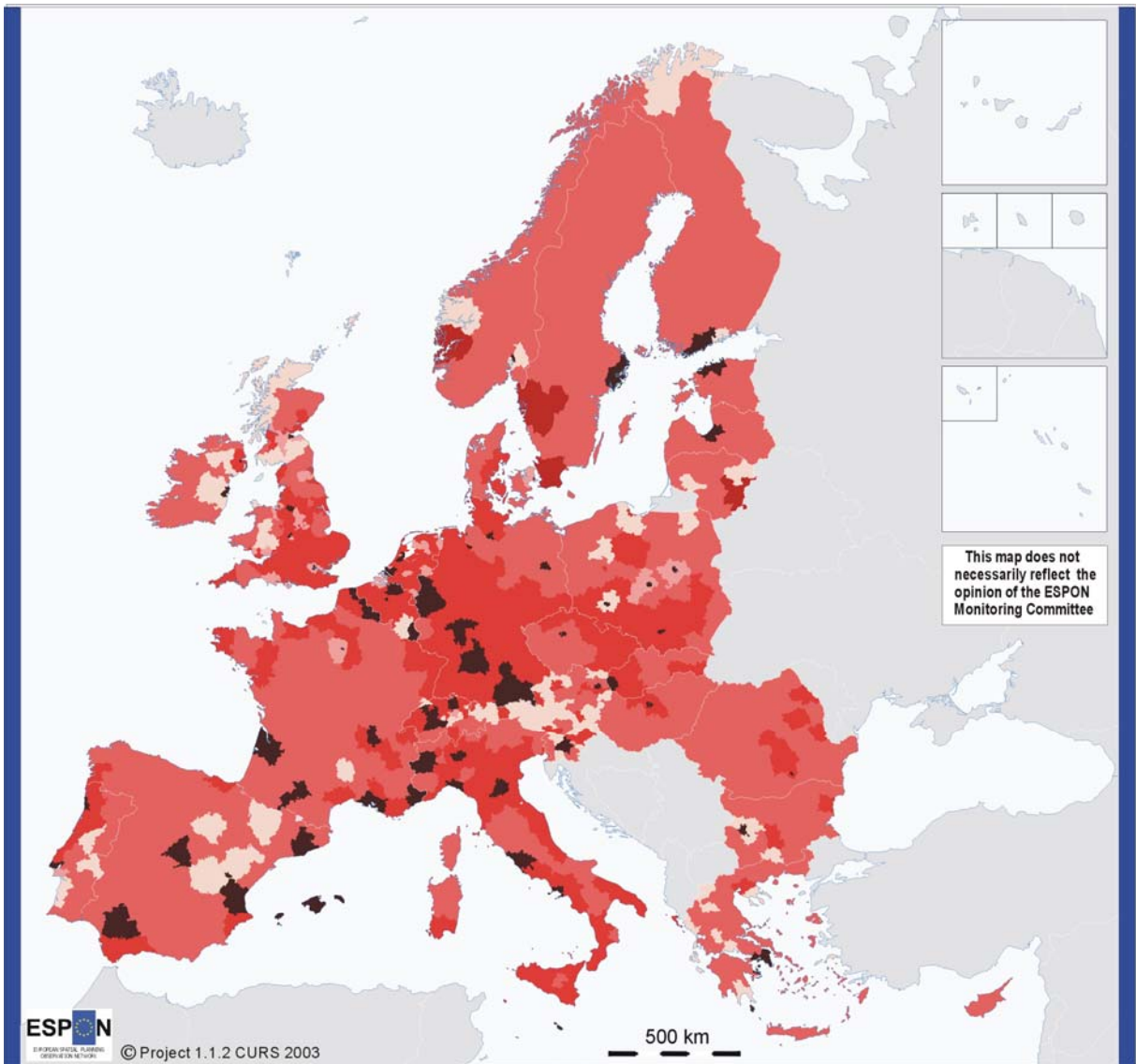
Population density in NUTS3 regions in 1999

289 - 20 200	(371 NUTS3 regions)
117 - 288	(371)
98 - 116	(75)
56 - 97	(251)
0 - 55	(251)

The average population density in EU25+4 is 107 inhabitants/km^2.

Map 3.10. Population density

FUA-ranking and population density
Ranking from the Project 1.1.1.

- ■ European or global level FUA, population density above average
- ■ European or global level FUA, population density below or equal to average
- ■ Some lower level FUA, population density above average
- ■ Some lower level FUA, population density below or equal to average
- ■ No FUAs, population density above average
- ■ No FUAs, population density below or equal to average

The average population density in EU 25+4 is 107 inhabitants/km^2.

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Population density:
Origin of data: EU15 and CC's: Eurostat
Norways and Switzerland: National
Statistical Offices
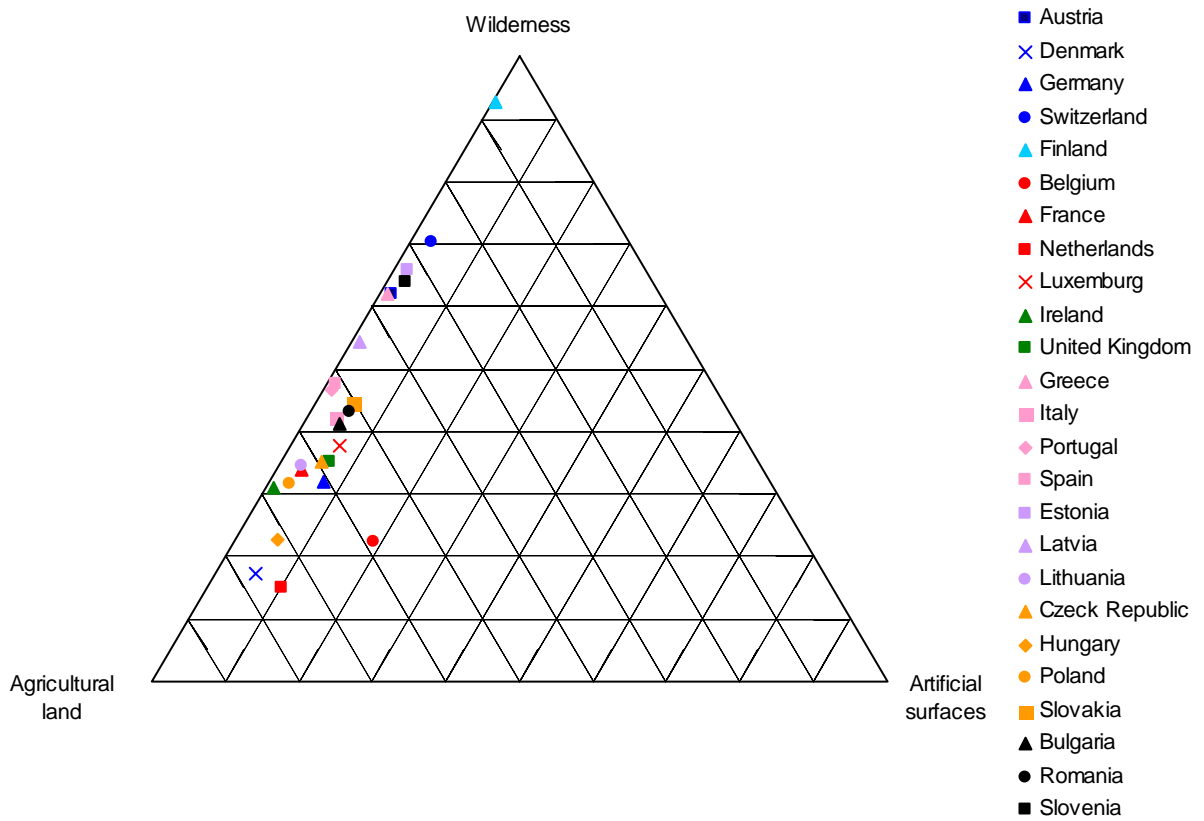Time reference: 1999
Source: ESPON Data Base

Ranking of Functional Urban Areas (FUAs):
Origin of data: EUROSTAT, National Statistical
Offices, National experts
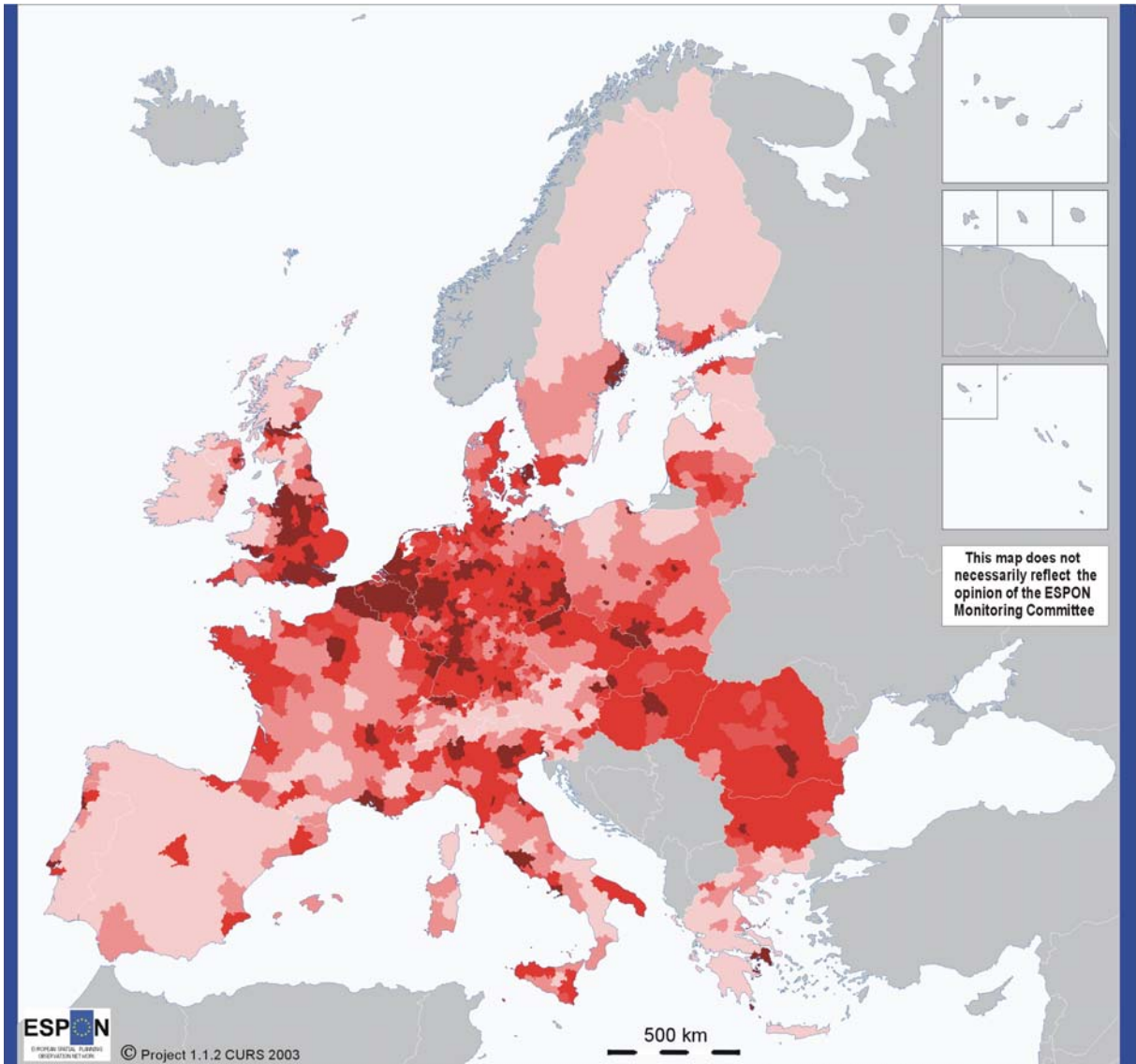Source: Nordregio, ESPON Data Base

Map 3.11. FUA-ranking and population density
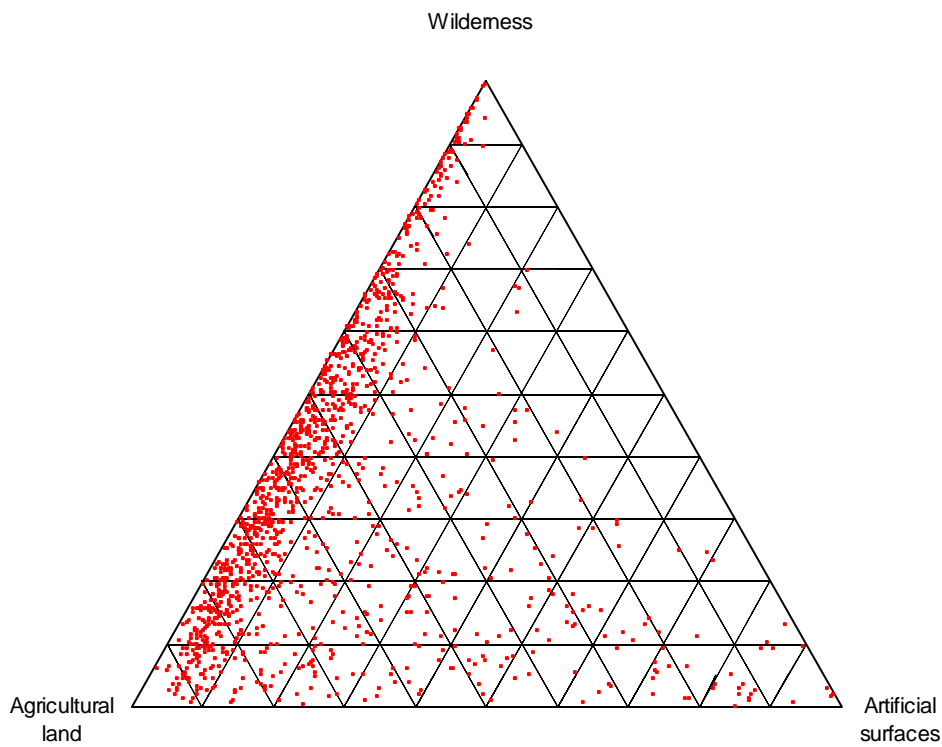
Graph 3.1 Distribution of land cover types in NUTS3 regions (EU 22+3).

Graph 3.2. Distribution of land cover types in countries (EU 22+3).

Share of artificial surfaces in NUTS3 regions (% of total area)

8 ,4	-	98 ,1	(393 NUTS3 regions)
3 ,79	-	8 ,3	(394)
3 ,18	-	3 ,78	(75)
1 ,53	-	3 ,17	(214)
0	-	1 ,52	(215)

The average share of artificial surfaces in EU23+3 is 3,48 % (no data on Cyprus, Malta and Norway).
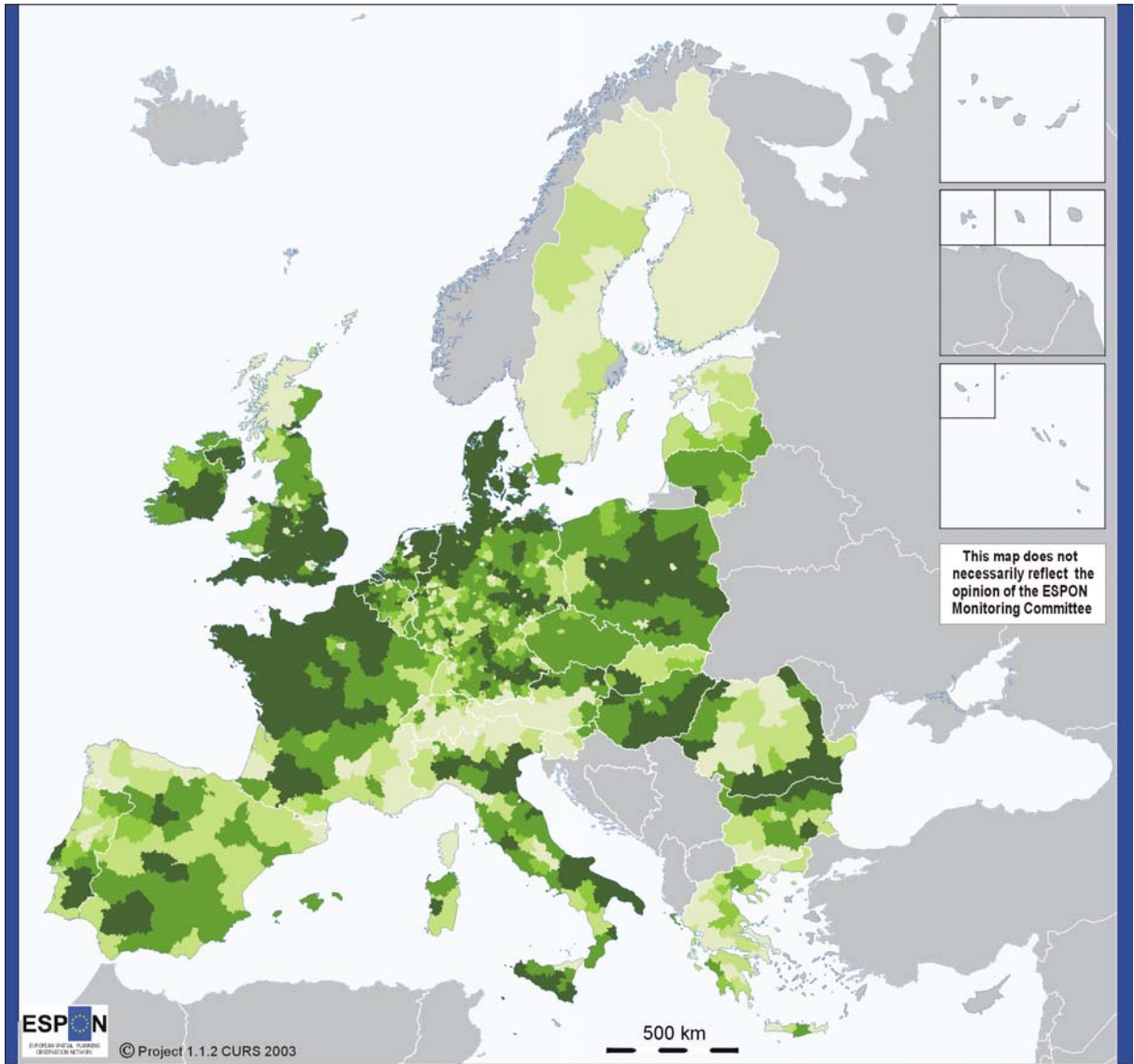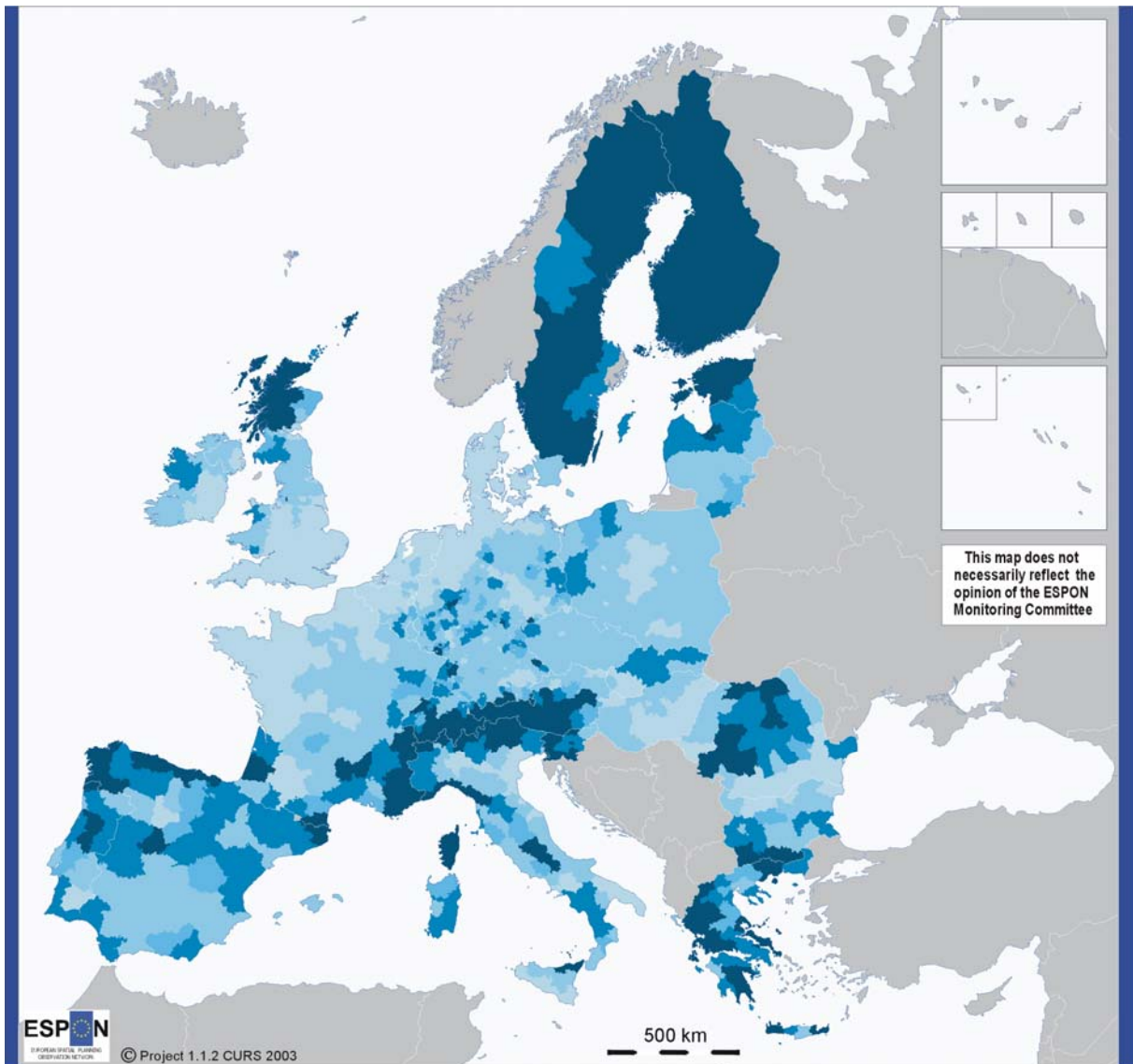
Map 3.12. Share of artificial surfaces

500 km

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Origin of data: EEA, Corine Land Cover 90 (250 m grid
Source: ESPON Data Base

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Share of agricultural land use in NUTS3 regions (% from total area)

69 ,5	- 93 ,5	(352 NUTS3 regions)
51 ,87	- 69 ,4	(351)
48 ,86	- 51 ,86	(75)
33 ,3	- 48 ,85	(258)
0 ,3	- 33 ,2	(255)

The average share of agricultural land use in EU23+3 is 50,36% (no data on Cyprus, Malta and Norway).

Map 3.13. Share of agricultural land use

Share of residual land cover in NUTS3 regions (% of total area)

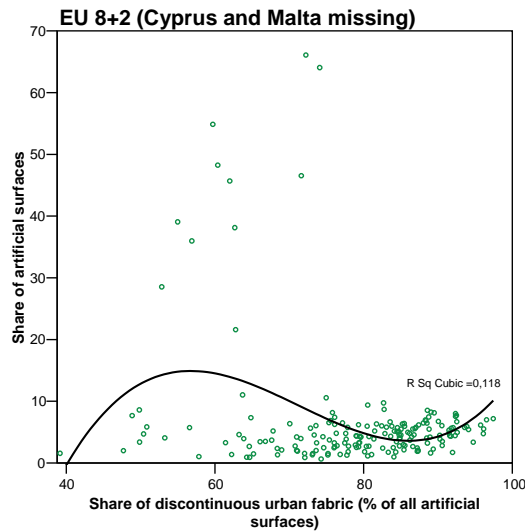|		
62 ,8	- 99 ,5	(176 NUTS3 regions)
48 ,27	- 62 ,7	(175)
44 ,06	- 48 ,26	(75)
21 ,4	- 44 ,05	(432)
0 ,1	- 21 ,3	(433)

The average share of residual land use in EU23+3 is 46,16% (no data on Cyprus, Malta and Norway).

Map 3.14. Share of residual land use

EU 23+3 (Cyprus, Malta and Norway missing)

Mean = 70,6621
Std. Dev. = 22,10866
N = 1 245

Share of discontinuous urban fabric (% of all artificial surfaces)

EU 15+1 (Norway missing)

Mean = 69,2293
Std. Dev. = 23,21678
N = 1 057

Share of discontinuous urban fabric (% of all artificial surfaces)

EU 8+2 (Cyprus and Malta missing)

Mean = 78,7183
Std. Dev. = 11,44213
N = 188

Share of discontinuous urban fabric (% of all artificial surfaces)

Graph 3.3. Share of discontinuous urban fabric as percentage of all artificial surfaces.

EU 23+3 (Cyprus, Malta and Norway missing)

Country group

○ EU15+2

New members and accession countries

R Sq Cubic =0,07

Share of artificial surfaces

Share of discontinuous urban fabric (% of all artificial surfaces)

EU 15+1 (Norway missing)

R Sq Cubic =0,092

Share of artificial surfaces

Share of discontinuous urban fabric (% of all artificial surfaces)

EU 8+2 (Cyprus and Malta missing)

R Sq Cubic =0,118

Share of artificial surfaces

Share of discontinuous urban fabric (% of all artificial surfaces)

Graph 3.4. Share of discontinuous urban fabric in relation to share of artificial surfaces.

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee

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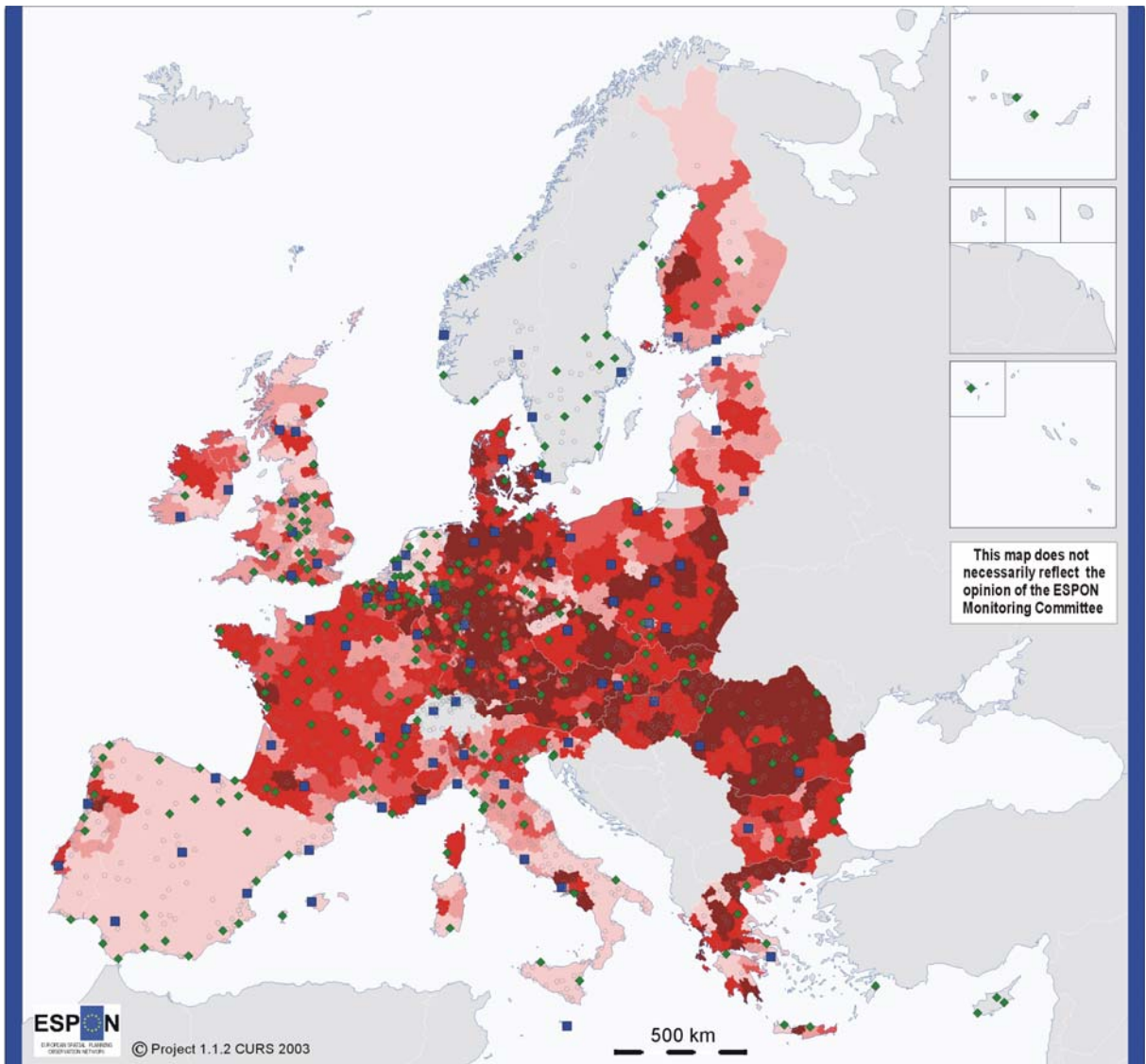
Share of discontinuous urban fabric (% of all artificial surfaces) in NUTS3 regions

■	84,6	- 100	(353 NUTS3 regions)
■	73,3	- 84,59	(353)
■	70,05	- 73,29	(100)
■	58,7	- 70,04	(216)
■	0,22	- 58,6	(216)

The average share of discontinuous urban fabric in EU22+2 is 71,67% (no data on Cyprus, Malta, Sweden,Norway and Switzerland).

Typology of Functional Urban Areas (from ESPON Action 1.1.1)

- ■ European/Global (MEGAs) (76 cities)
- ◆ National/Transnational (268)
- ○ Local/Regional (1264)

Land cover:
    Origin of data: EEA, Corine Land Cover 90 (250 m grid)

Source: ESPON Data Base

Ranking of Functional Urban Areas (FUAs):
    Origin of data: EUROSTAT, National Statistical
        Offices, National experts
    Source: Nordregio, ESPON Data Base

Map 3.15. Share of discontinuous urban fabric as percentage of all artificial surfaces

Population density
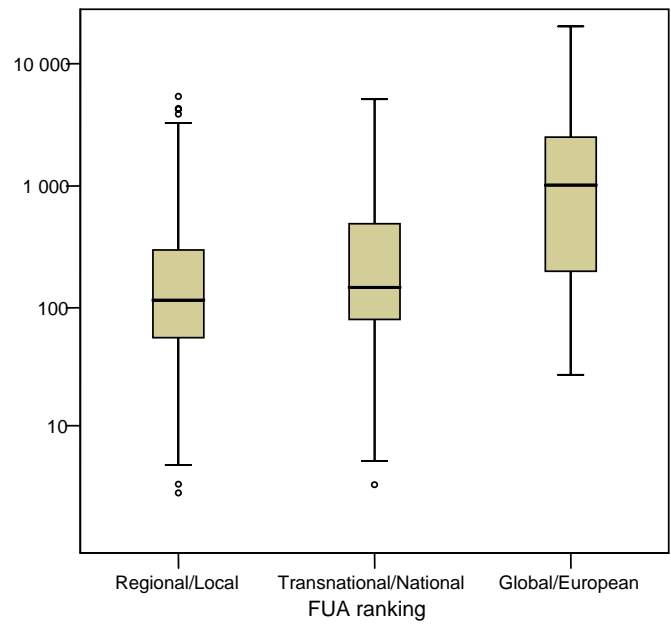
Population density
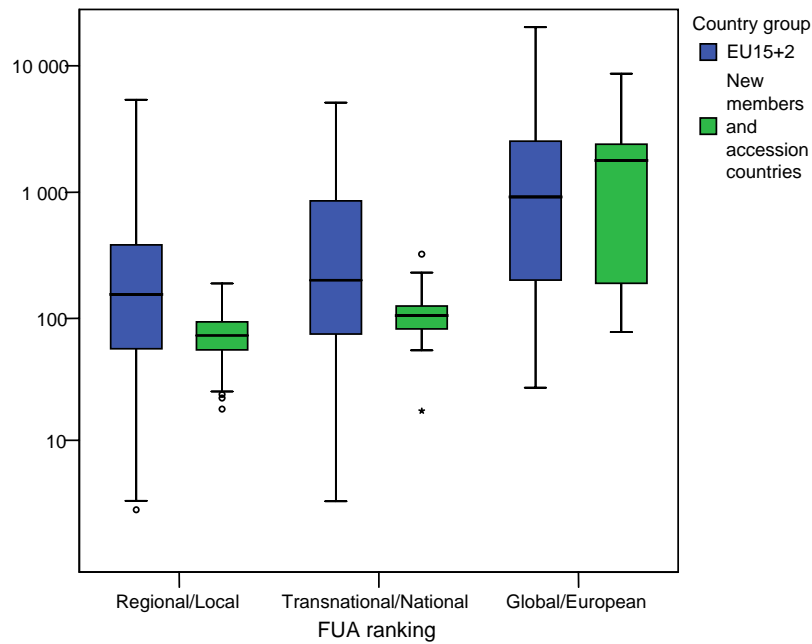

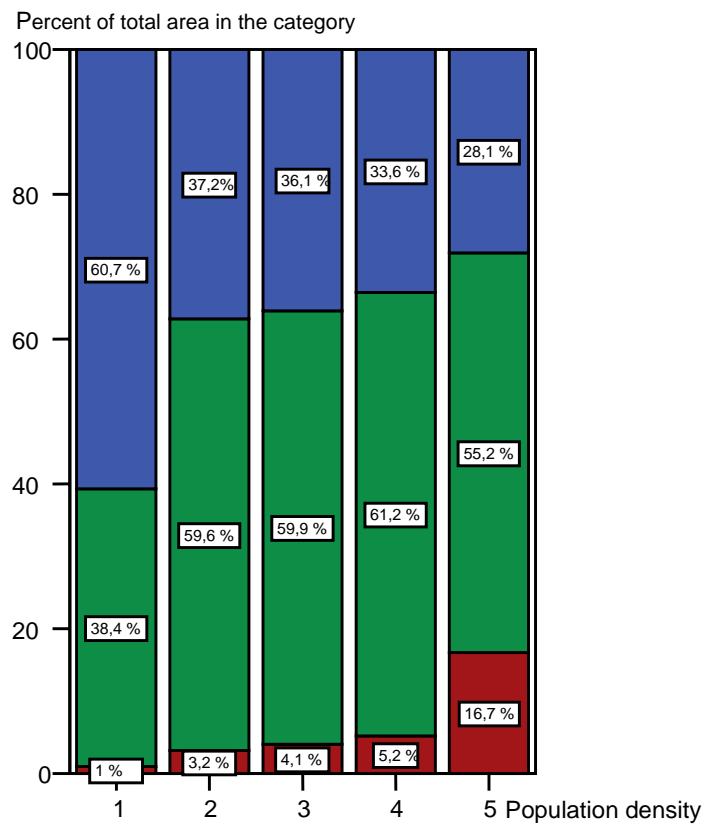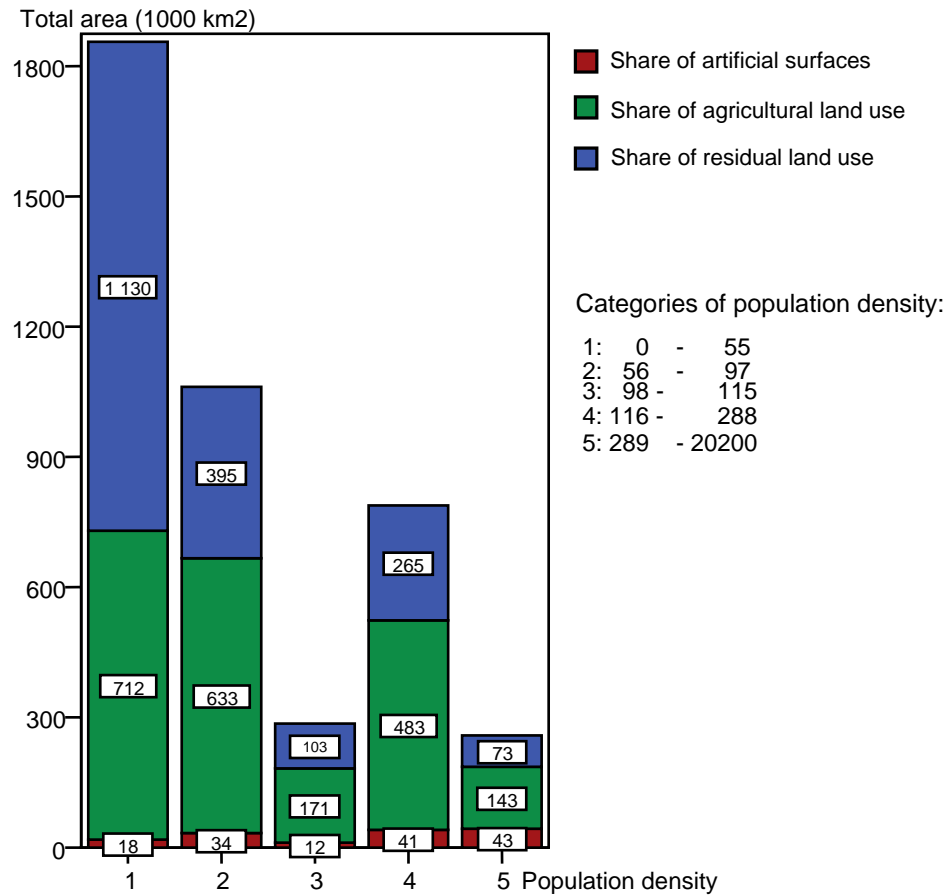| FUA ranking	Country group	N	Median	Minimum	Maximum	Range
Regional/ Local	EU15+2	469	156	2	5 392	5 390
	New members and accession countries	110	73	18	189	171
	Total	579	116	2	5 392	5 390
Transnational/ National	EU15+2	204	201	3	5 122	5 119
	New members and accession countries	45	105	18	324	306
	Total	249	148	3	5 122	5 119
Global/ European	EU15+2	58	919	28	20 161	20 134
	New members and accession countries	18	1 785	78	8 677	8 599
	Total	76	1 019	28	20 161	20 134
Total	EU15+2	1 130	158	2	20 161	20 160
	New members and accession countries	189	84	18	8 677	8 659
	Total	1 319	137	2	20 161	20 160

Graph 3.5. FUA ranking in relation to population density (FUA ranking by ESPON Action 1.1.1)
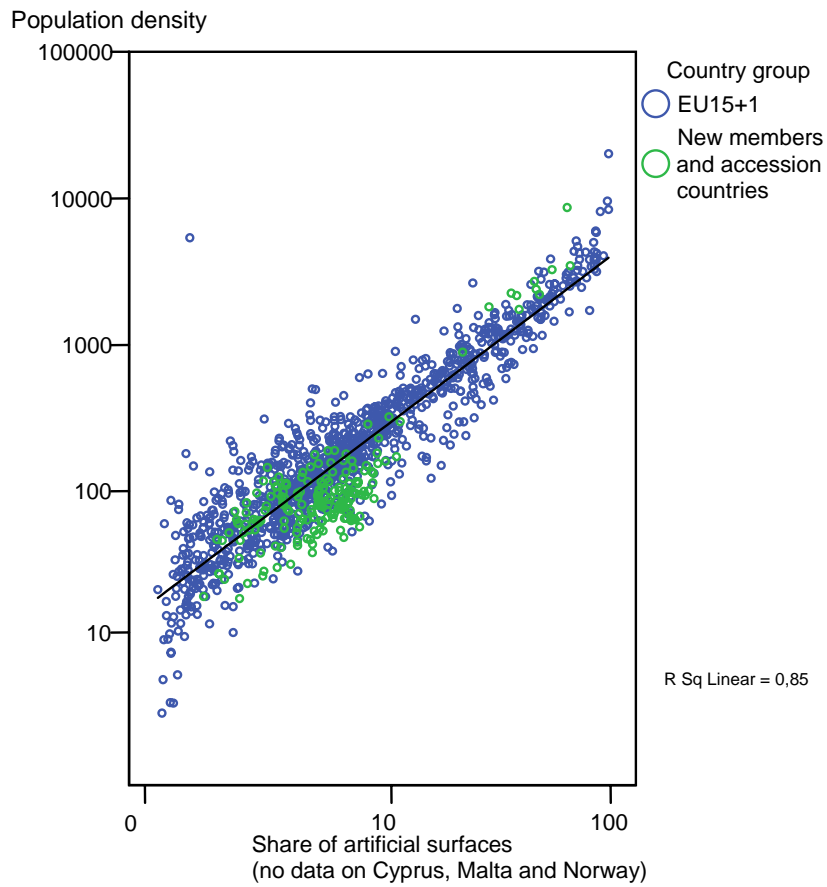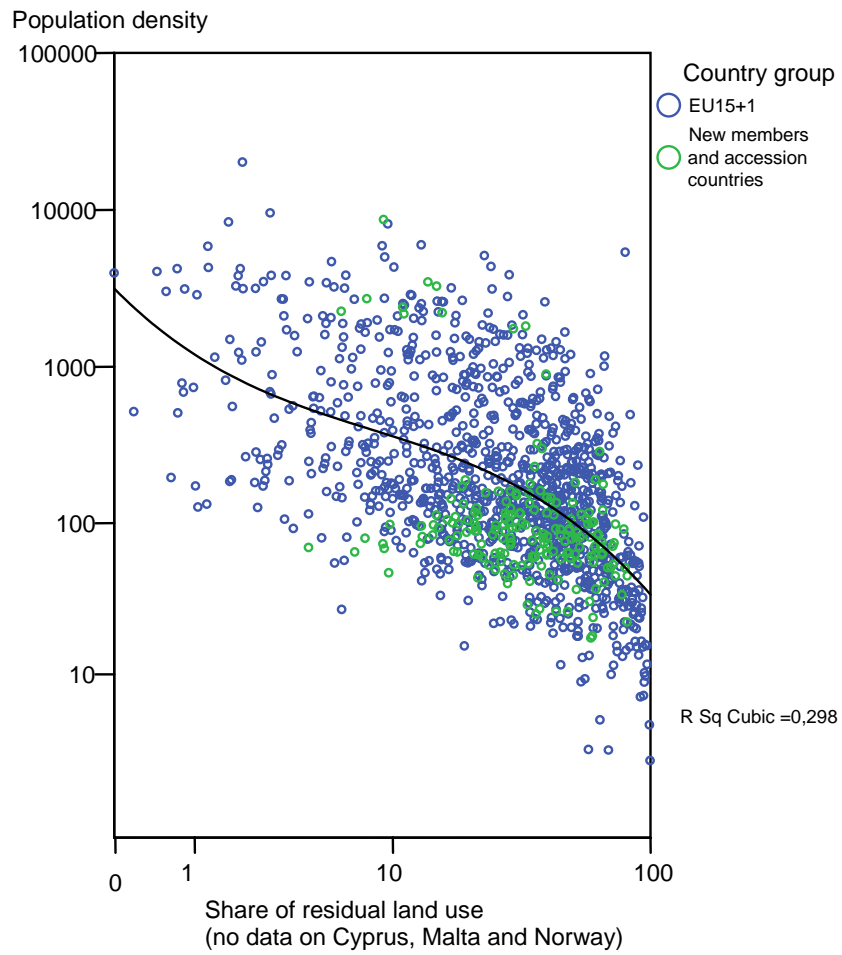
**Graph 3.6. Share of artificial surfaces in relation to population density**
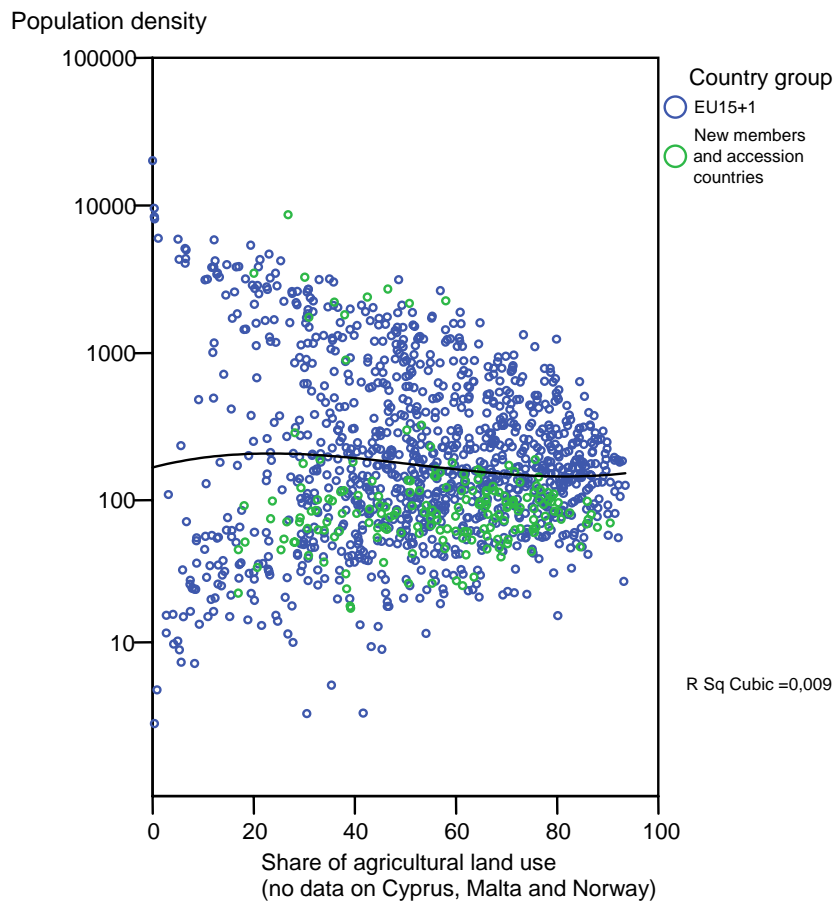
Graph 3.7. Share of agricultural land use in relation to population density

Total area (1000 km2)

■ Share of artificial surfaces
■ Share of agricultural land use
■ Share of residual land use

Categories of population density:

1:   0   -   55
2: 56   -   97
3: 98 -   115
4: 116 -   288
5: 289   - 20200

1 130

712

395

633

483

265

103

171

73

143

18   34   12   41   43

1   2   3   4   5 Population density

Percent of total area in the category

60,7 %

37,2%   36,1 %   33,6 %   28,1 %

59,6 %   59,9 %   61,2 %   55,2 %

38,4 %

16,7 %

1 %   3,2 %   4,1 %   5,2 %

1   2   3   4   5 Population density

Graph 3.8. Population density in relation to the shares of different land cover types in EU 23+3.

Graph 3.9. Share of residual land use in relation to population density.
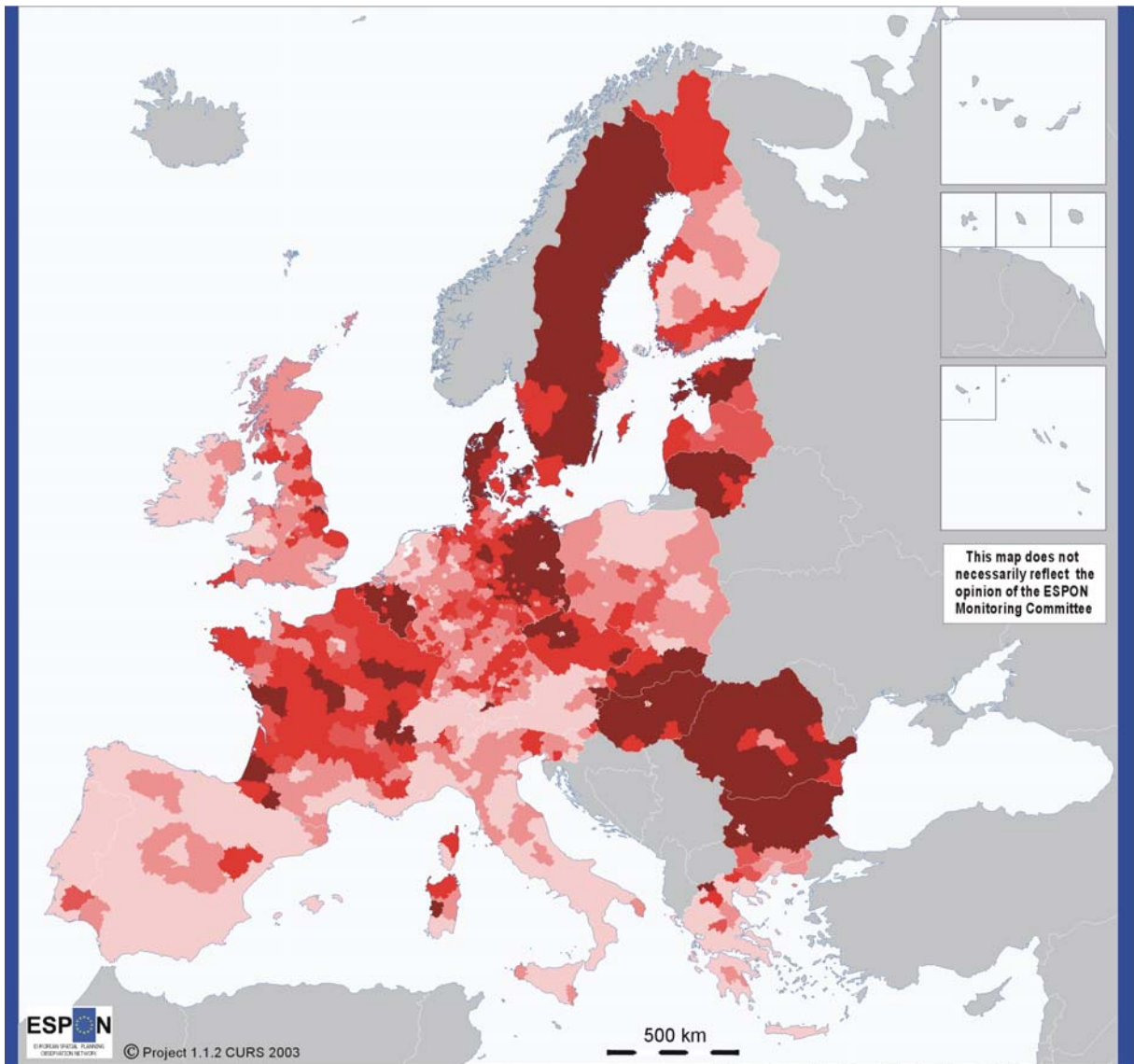
Artificial surfaces (km²) per 1000 inhabitants
in NUTS3 regions

0 ,48 – 1 ,33	(228 NUTS3 regions)
0 ,36 – 0 ,47	(228)
0 ,33 – 0 ,35	(75)
0 ,25 – 0 ,32	(380)
0 – 0 ,24	(380)

The average amount of artificial surfaces per 1000 inhabitants in EU23+3 is 0,34 km² / 1000 inhabitants
(no land cover data on Cyprus, Malta and Norway).

Map 3.16. Artificial surfaces per capita

EU 23+3 (Cyprus, Malta and Norway missing)

Population density

Country group

○ EU15+1

○ New members and accession countries

R Sq Cubic =0.052

Share of discontinuous urban fabric (% of all artificial surfaces)

EU 15+1 (Norway missing)

Population density

R Sq Cubic =0,06

Share of discontinuous urban fabric (% of all artificial surfaces)

EU 8+2 (Cyprus and Malta missing)

Population density

R Sq Cubic =0,113

Share of discontinuous urban fabric (% of all artificial surfaces)

Graph 3.10 Share of discontinuous urban fabric in relation to population density.
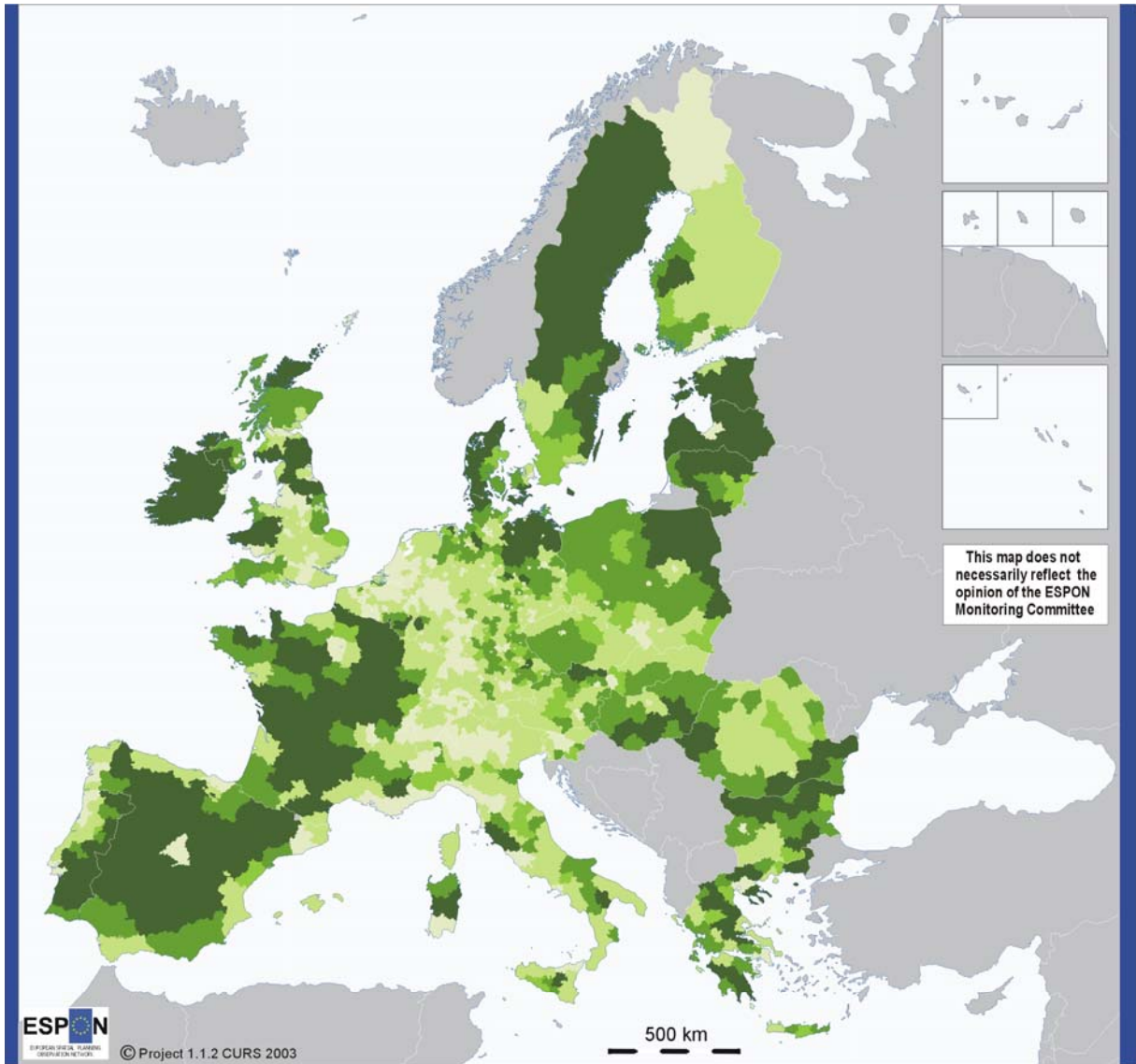
Agricultural land use (km²) per 1000 inhabitants
in NUTS3 regions

9,3 - 157	(214 NUTS3 regions)
6,1 - 9,2	(213)
5,2 - 6,0	(75)
2,0 - 5,1	(395)
0 - 1,9	(394)

The average share of agricultural land per 1000 inhabitants in EU 23+3
is 5,6 km²/1000 inhabitants (no data on Cyprus, Malta and Norway).

Map 3.17. Agricultural land use per capita
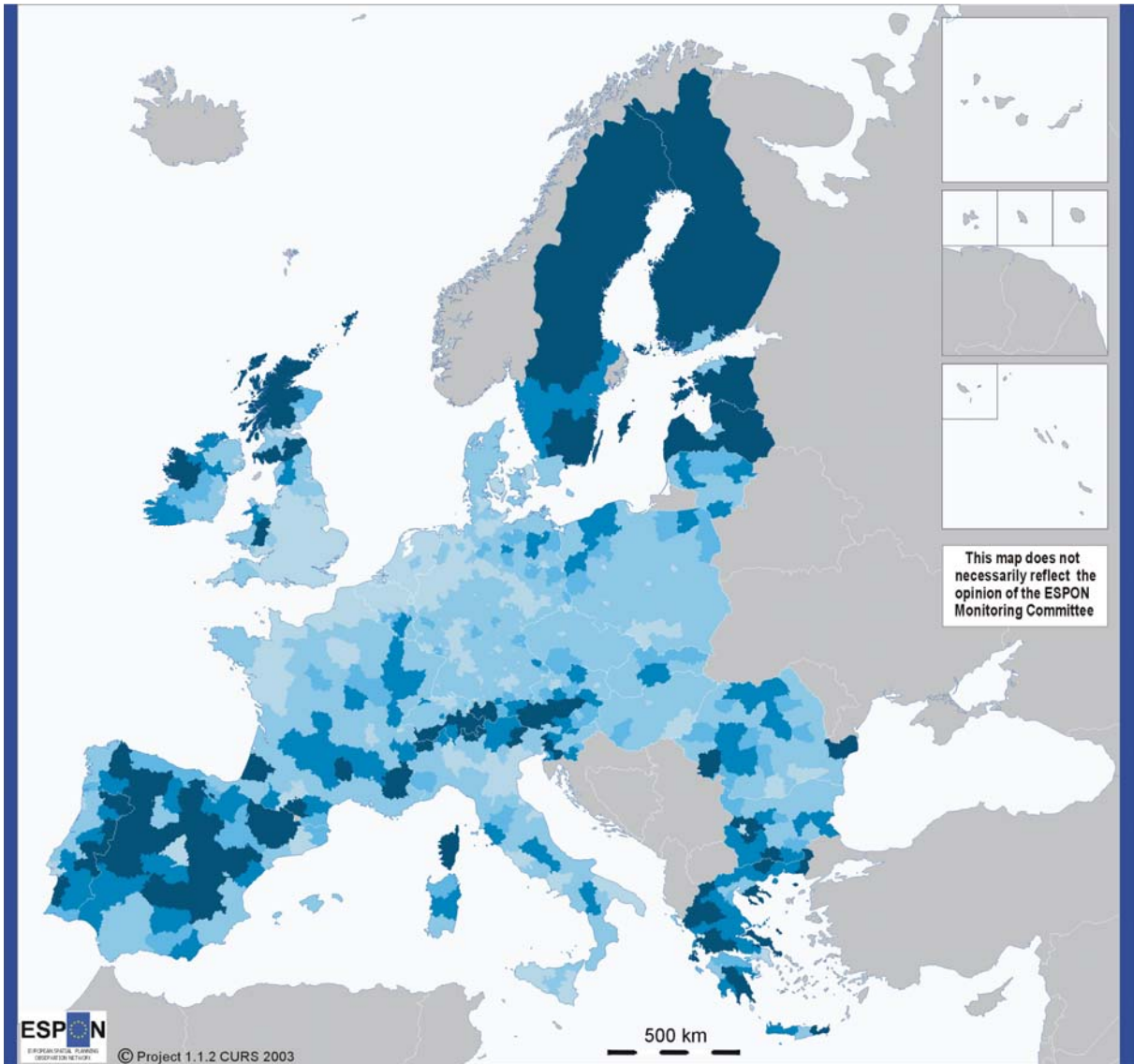
Residual land (km²) per 1000 inhabitants
in NUTS3 regions

■	15	- 473 ,58	(121 NUTS3 regions)
■	7 ,4	- 14,9	(122)
■	5 ,67	- 7 ,39	(75)
■	1 ,19	- 5 ,66	(487)
□	0	- 1 ,18	(487)

The average amount of residual land per 1000 inhabitants in EU 23+3 is 6,53 km²/1000 inhabitants
(no CLC data on Cyprus, Malta and Norway).

Map 3.18. Residual land use per capita
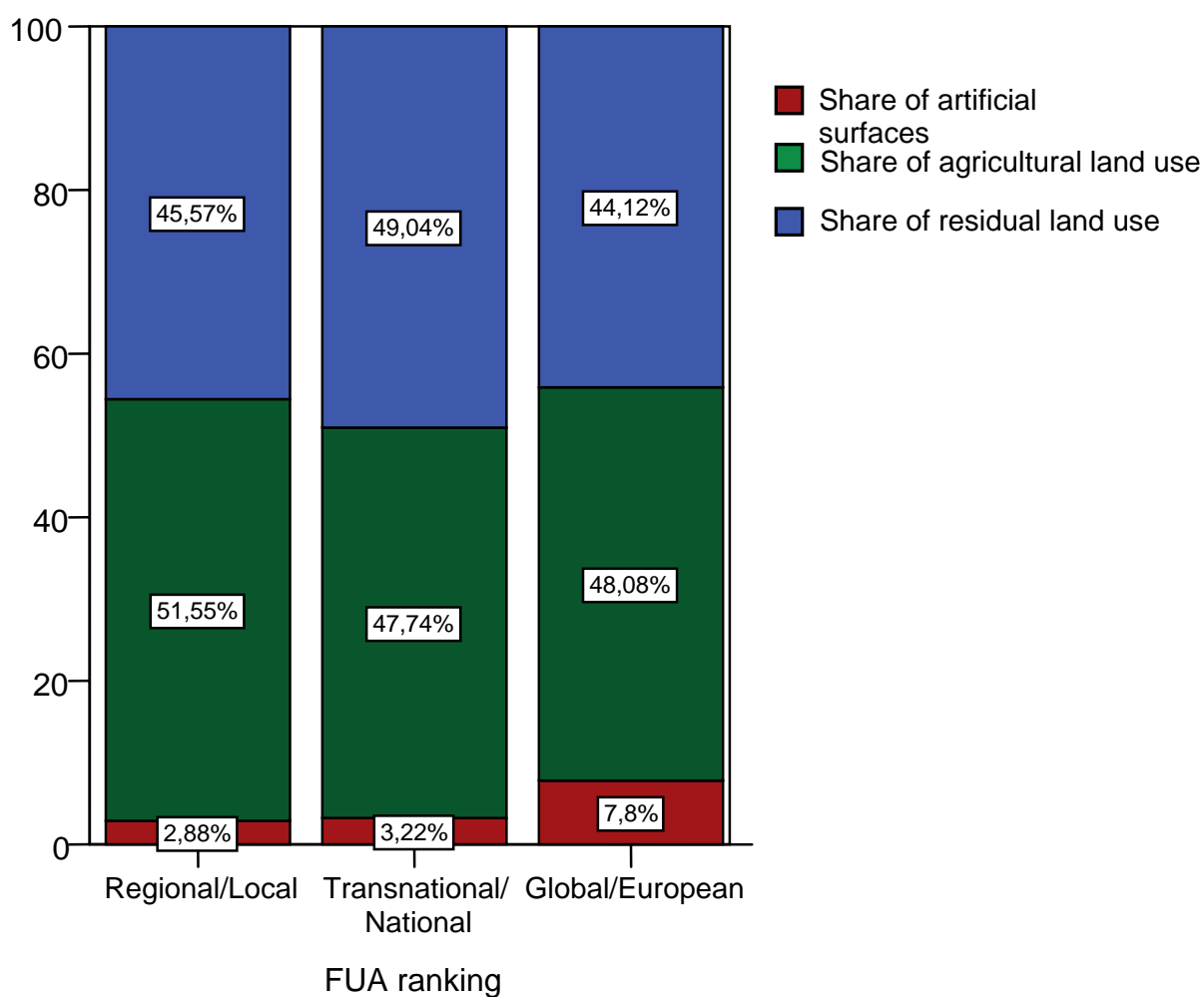
Graph 3.11. FUA ranking in relation to the shares of different land cover types in EU 23+3 (FUA typology by ESPON Action 1.1.1).
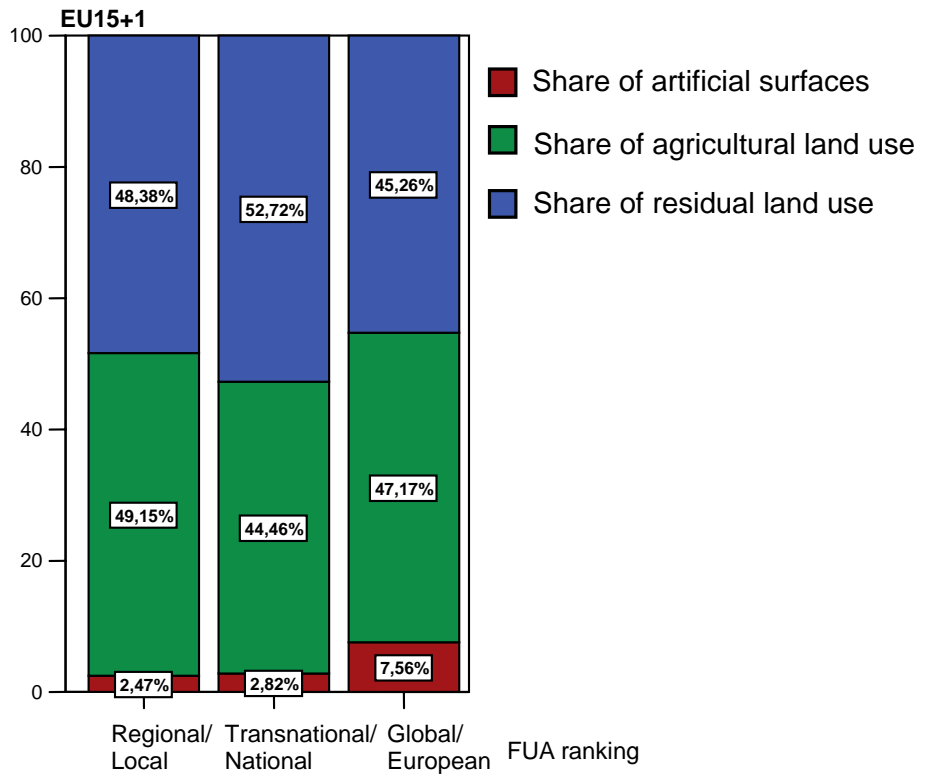
EU15+1

**New member countries and accession countries
(no data on Cyprus and Malta)**

**Graph 3.12. FUA ranking in relation to the shares of different land cover types in
EU 15+1 and in EU 10+2 (FUA typology by ESPON Action 1.1.1).**

Share of artificial surfaces

Share of artificial surface

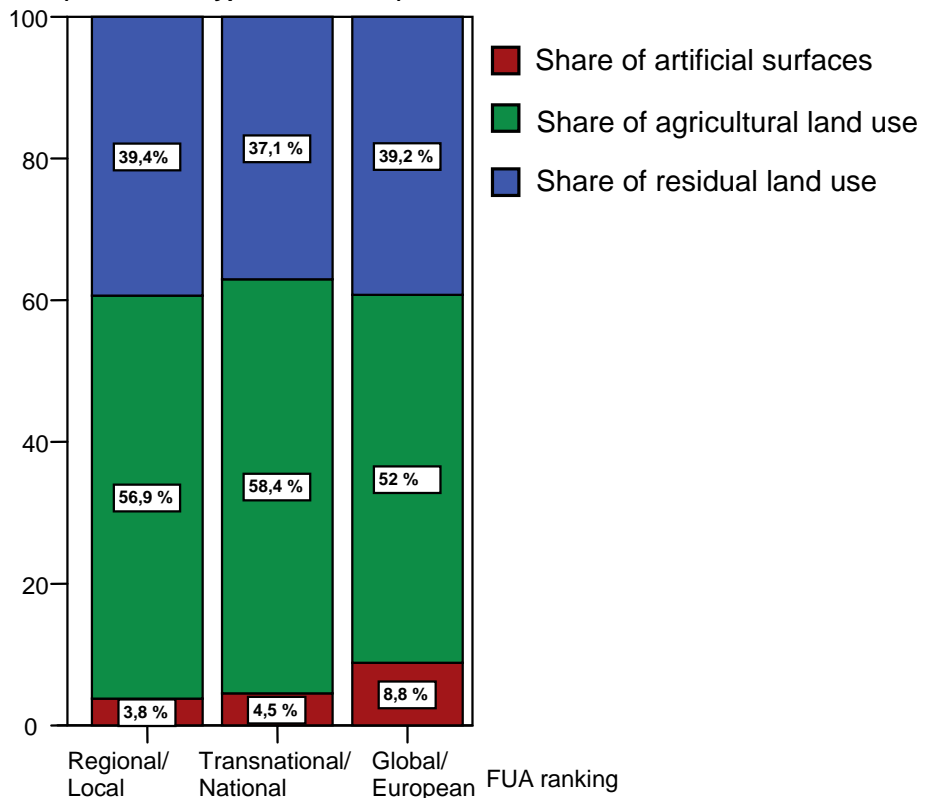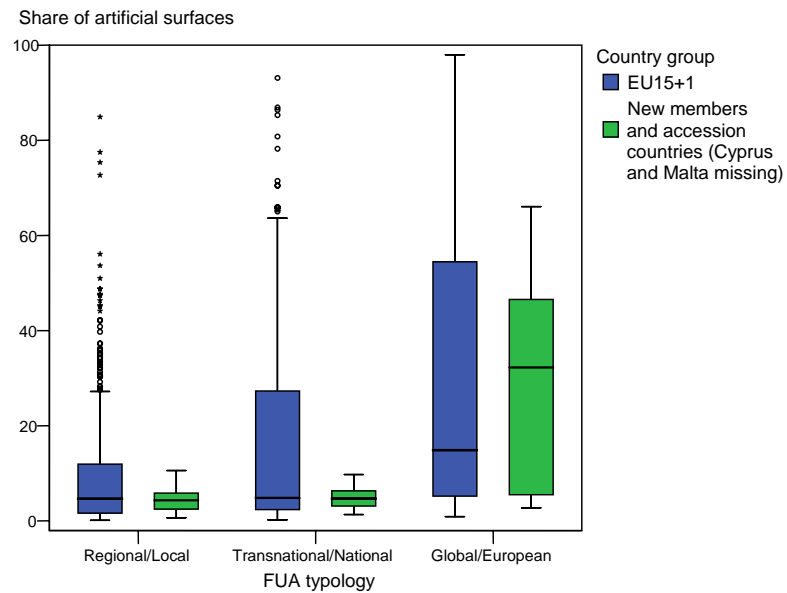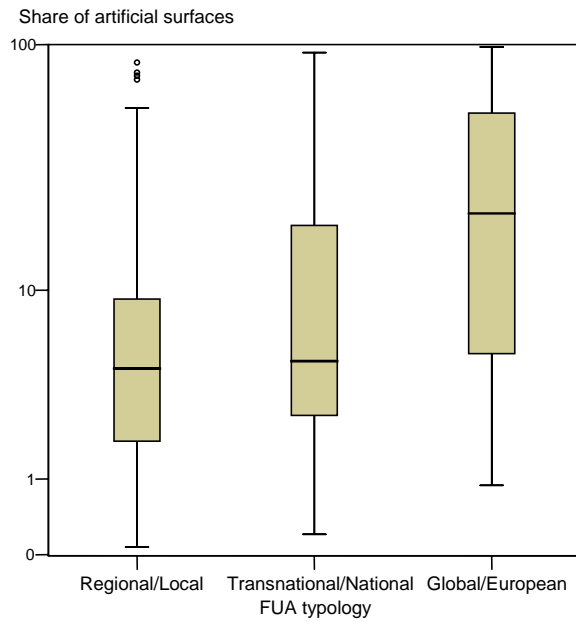| FUA typology	Country group	N	Median	Minimum	Maximum	Range
Regional/ Local	EU15+1	455	4,6	0,08	84,9	84,8
	New members and accession countries	110	4,3	0,64	10,5	9,9
	Total	565	4,4	0,08	84,9	84,8
Transnational/ National	EU15+1	199	4,8	0,21	93,1	92,9
	New members and accession countries	44	4,7	1,3	9,7	8,4
	Total	243	4,8	0,21	93,1	92,9
Global/ European	EU15+1	56	14,8	0,89	97,9	97,1
	New members and accession countries	18	32,2	2,7	66,1	63,3
	Total	74	21	0,89	97,9	97,1
Total	EU15+1	1 105	5	0,04	97,9	97,9
	New members and accession countries	188	4,4	0,64	66,1	65,4
	Total	1 293	4,9	0,04	97,9	97,9

Graph 3.13. FUA ranking in relation to the share of artificial surfaces (FUA typology by ESPON Action 1.1.1).

Cases weighted by Artificial surface

Cases weighted by Artificial surface
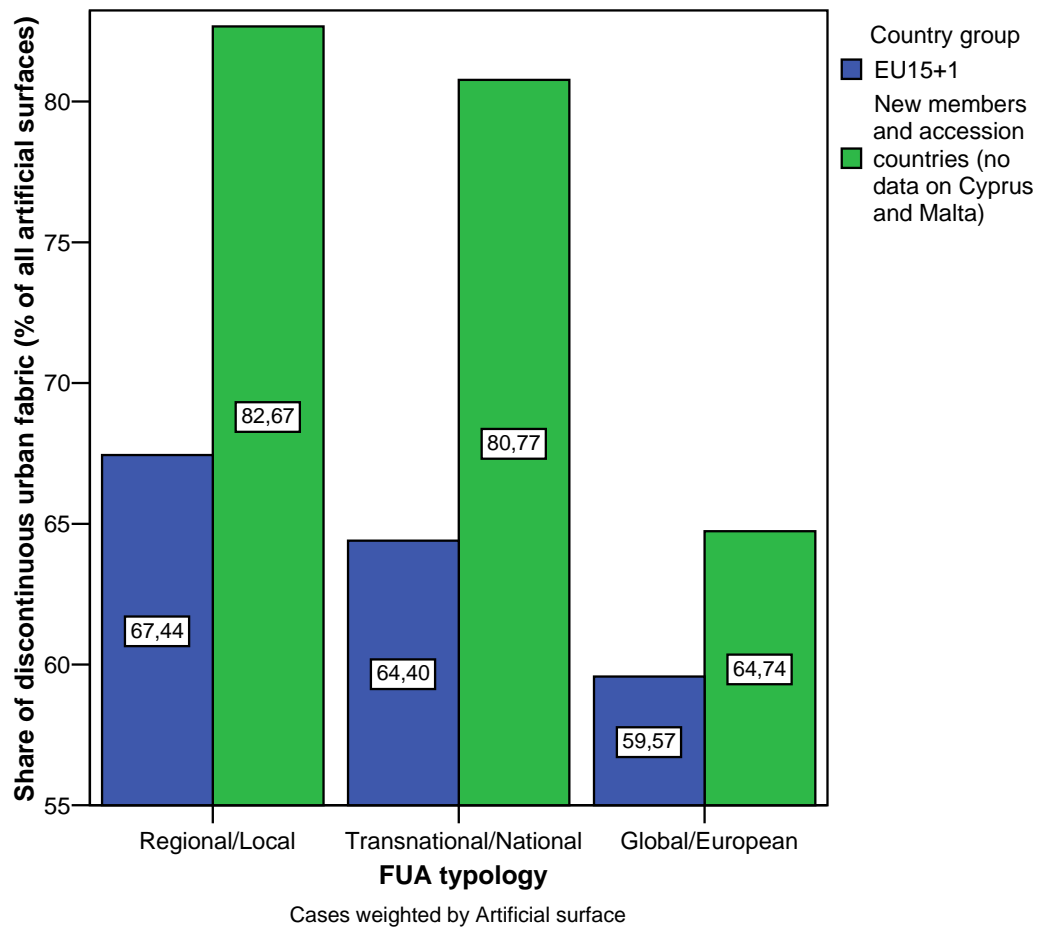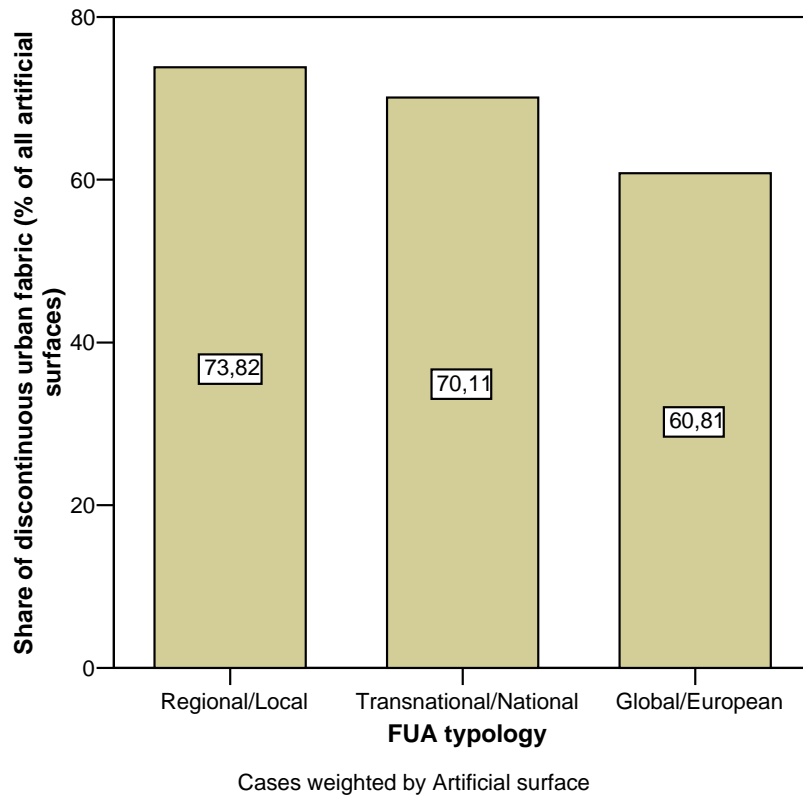
Graph 3.14. FUA ranking in relation to share of discontinuous urban fabric.

Share of artificial surface
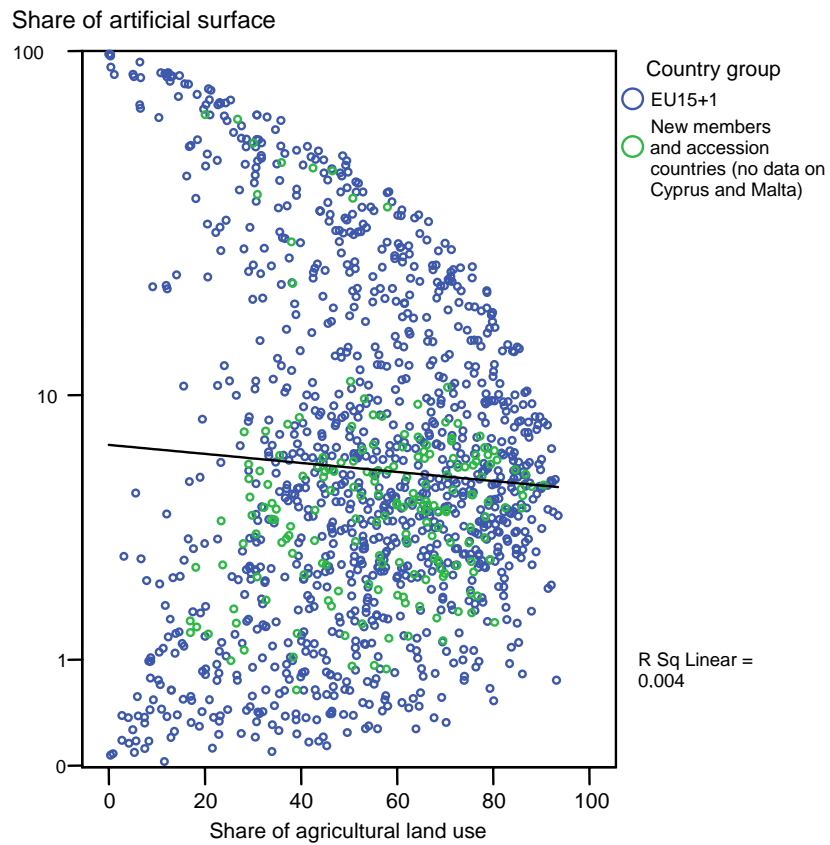
Graph 3.15. Share of agricultural land use in relation to share of artificial surfaces

Share of rural population
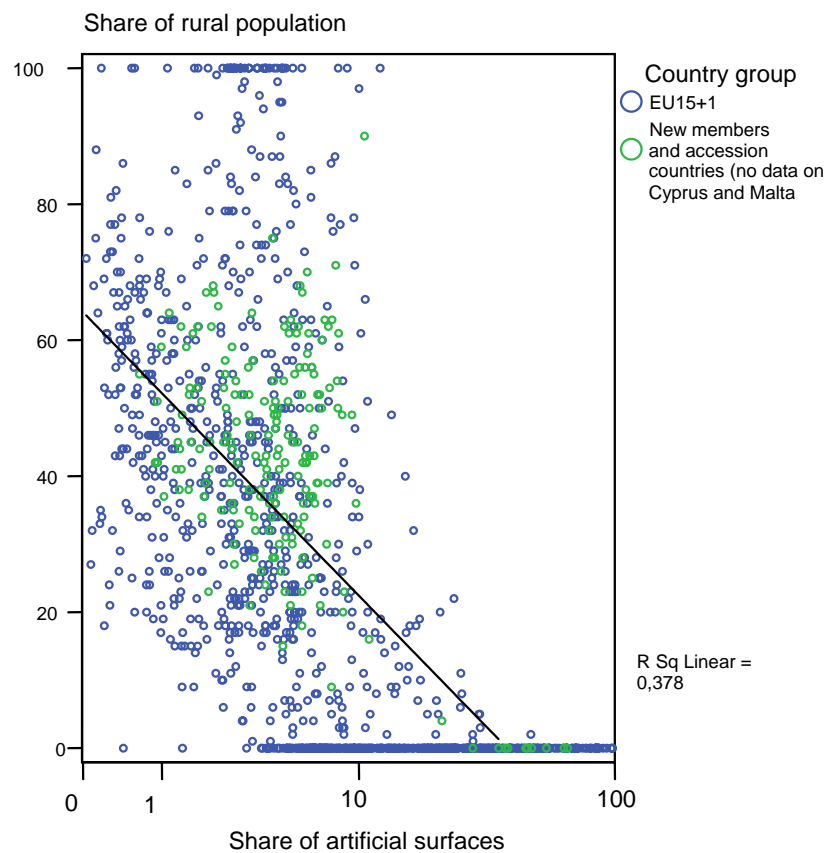
Graph 3.16. Share of artificial surfaces in relation to the share of rural population (national classification).
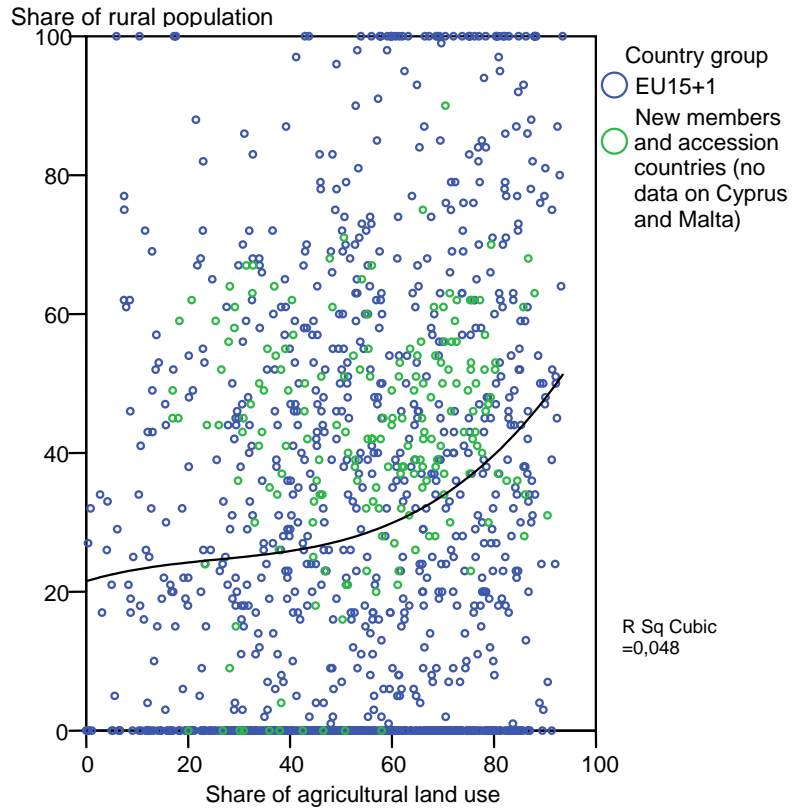
Graph 3.17. Share of agricultural land use in relation to the share of rural population (national classification).
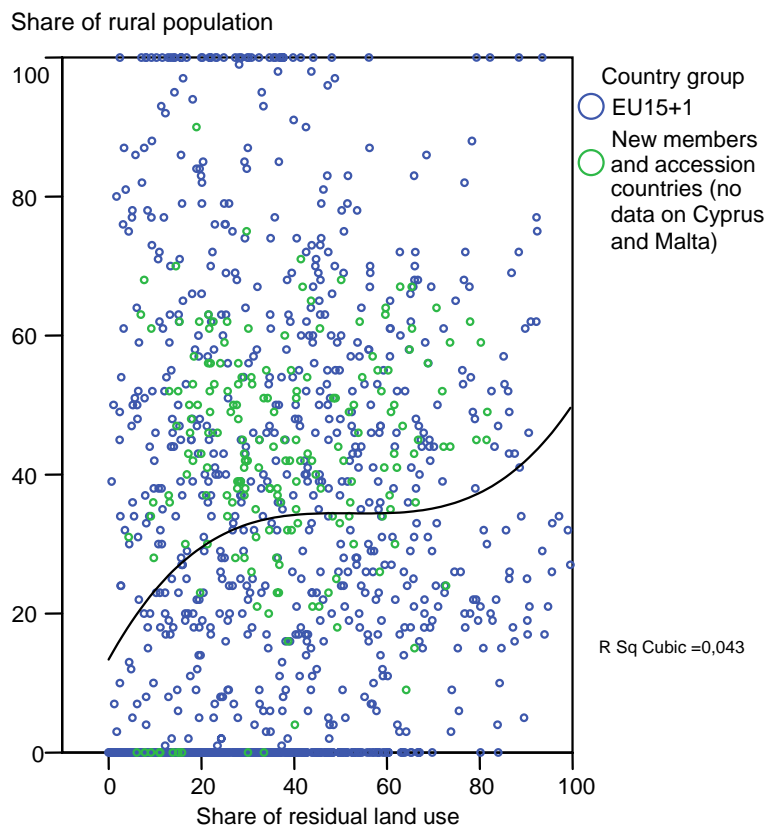
Graph 3.18. Share of residual land use in relation to the share of rural population (national classification).

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500 km

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Origin of data: EU15 and CC's: Eurostat
Norways and Switzerland: National
Statistical Offices

Source: ESPON Data Base
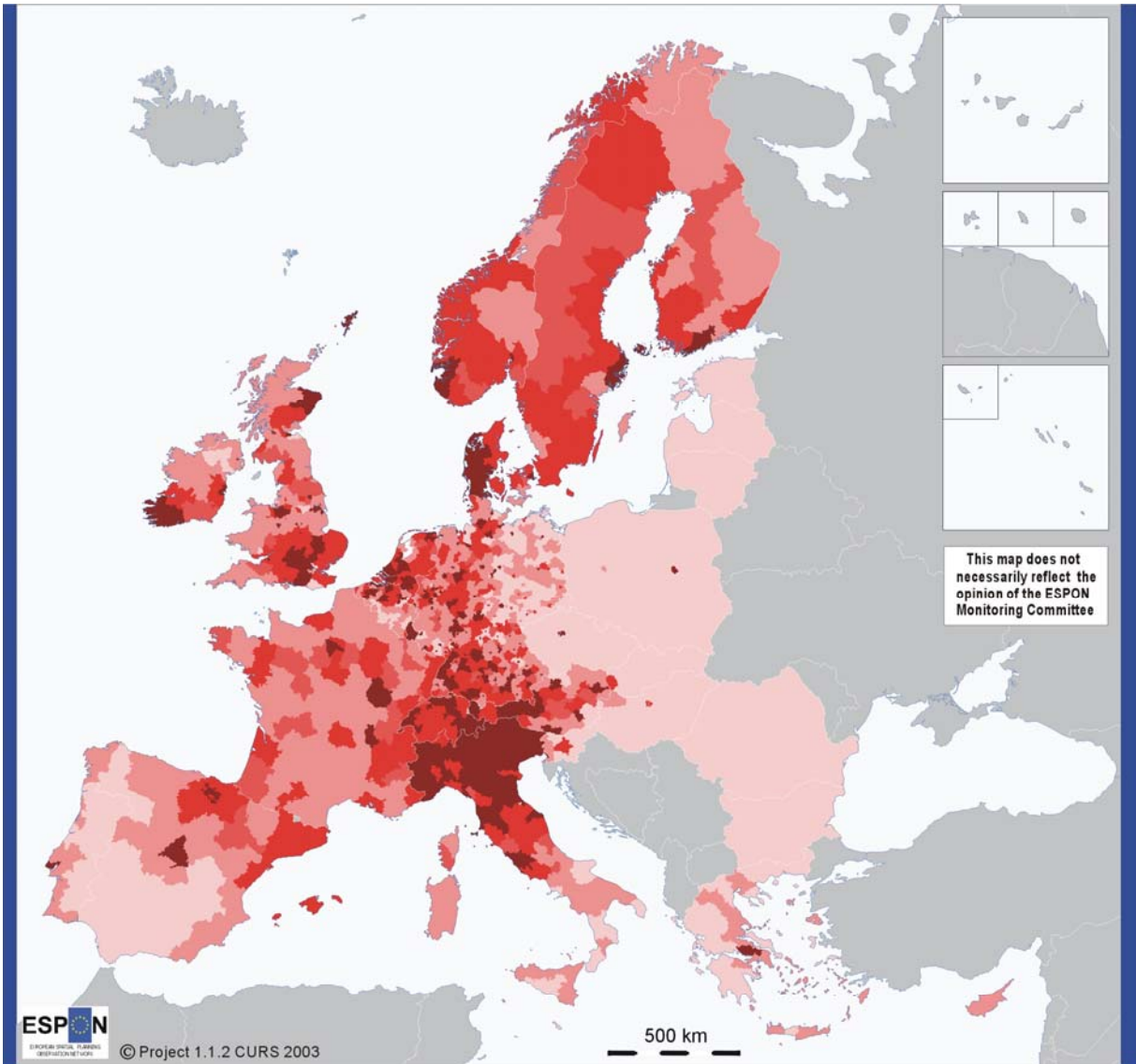
**GDP_{PPS} per capita
in NUTS3 regions in 1999**

22 871	- 94 324	(263 NUTS3 regions)
19 008	- 22 870	(263)
18 207	- 19 007	(75)
13 750	- 18 206	(360)
19	- 13 749	(360)

The average GDP_{PPS} per capita in EU 25+4 is 18 607 euros/capita.

Map 3.19. GDP_{PPS} per capita.
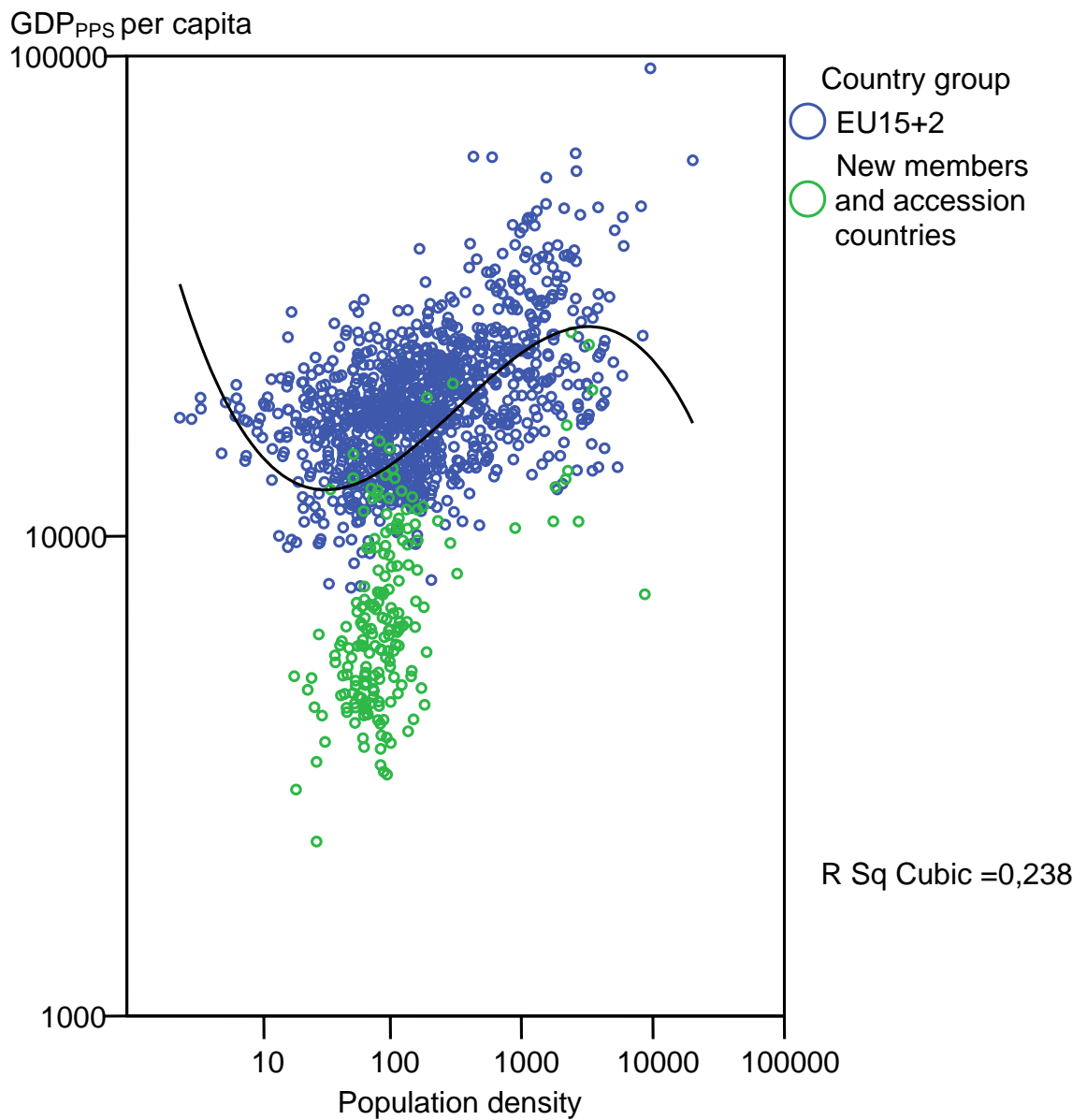
Graph 3.19. Population density in relation to GDP$_{PPS}$ per capita in 1999.
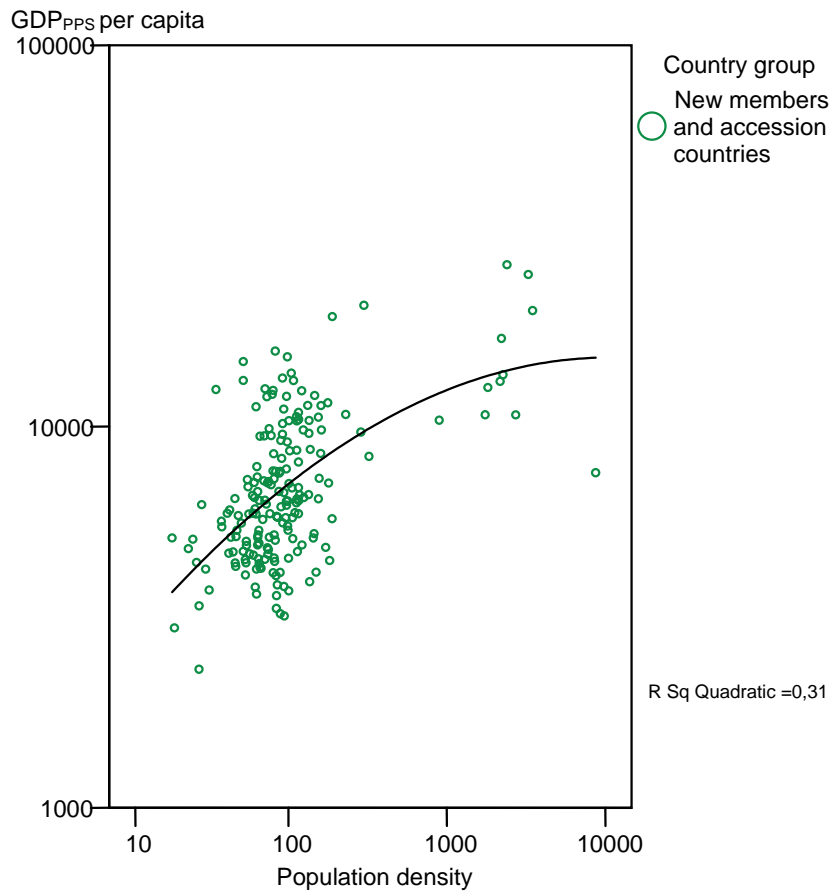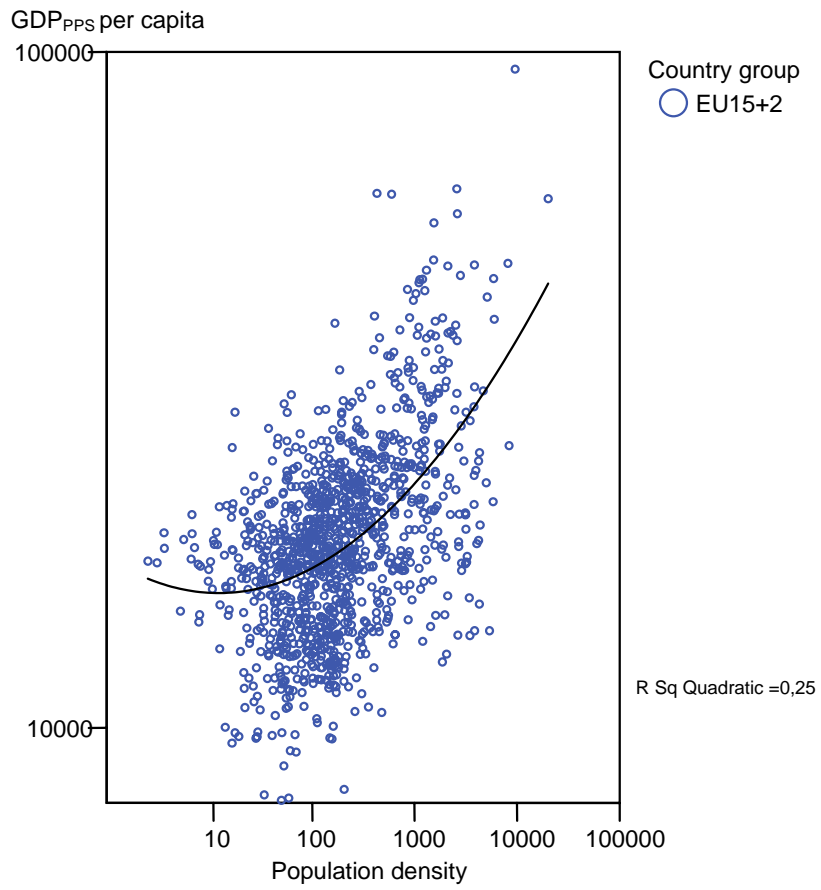
Graph 3.20. Population density in relation to GDP_PPS per capita in EU 15+2 and in EU 10+2 in 1999.

GDP$_{PPS}$ per capita

GDP$_{PPS}$ per capita

GDP$_{PPS}$ per capita
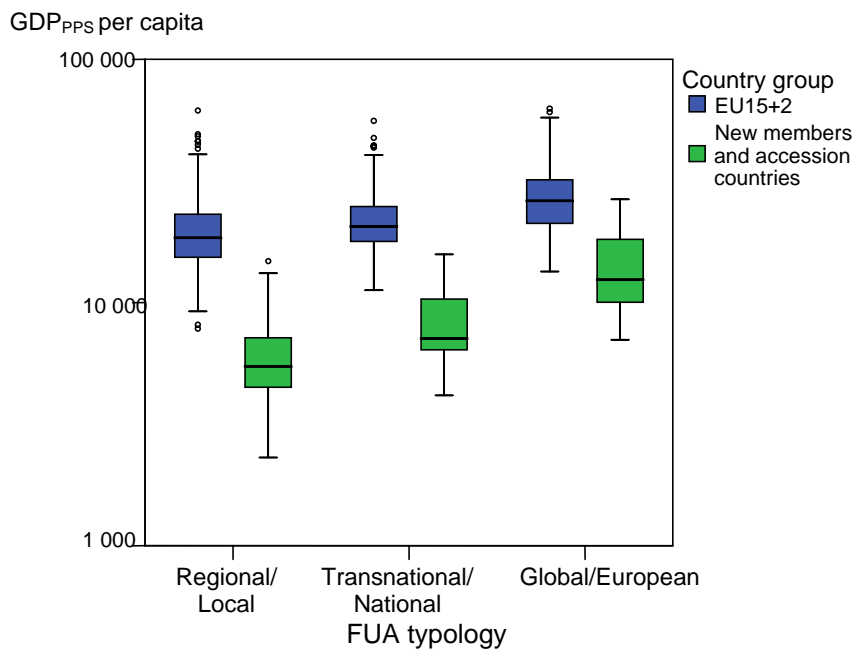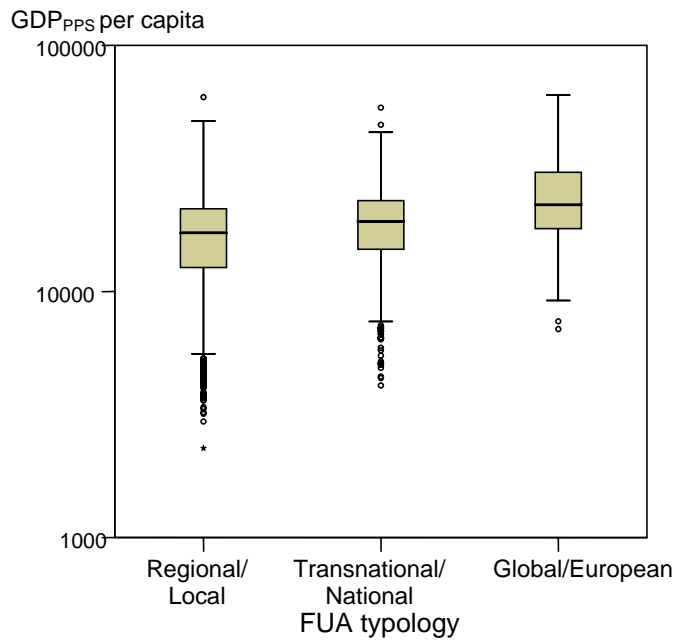
FUA typology	Country group	N	Median	Minimum	Maximum	Range
Regional/ Local	EU15+2	469	18 480	7 809	61 590	53 781
	New members and accession countries	110	5 465	2 310	14 810	12 500
	Total	579	17 324	2 310	61 590	59 280
Transnational/ National	EU15+2	204	20 569	11 232	55 855	44 623
	New members and accession countries	45	7 109	4 152	15 772	11 620
	Total	249	19 294	4 152	55 855	51 703
Global/ European	EU15+2	58	26 197	13 426	62 743	49 317
	New members and accession countries	19	12 415	7 040	26 573	19 533
	Total	77	22 498	7 040	62 743	55 704
Total	EU15+2	1 130	18 556	7 809	94 323	86 514
	New members and accession countries	191	6 403	2 310	26 573	24 263
	Total	1 321	17 582	2 310	94 323	92 013

Graph 3.21. FUA ranking in relation to GDP$_{PPS}$ per capita.
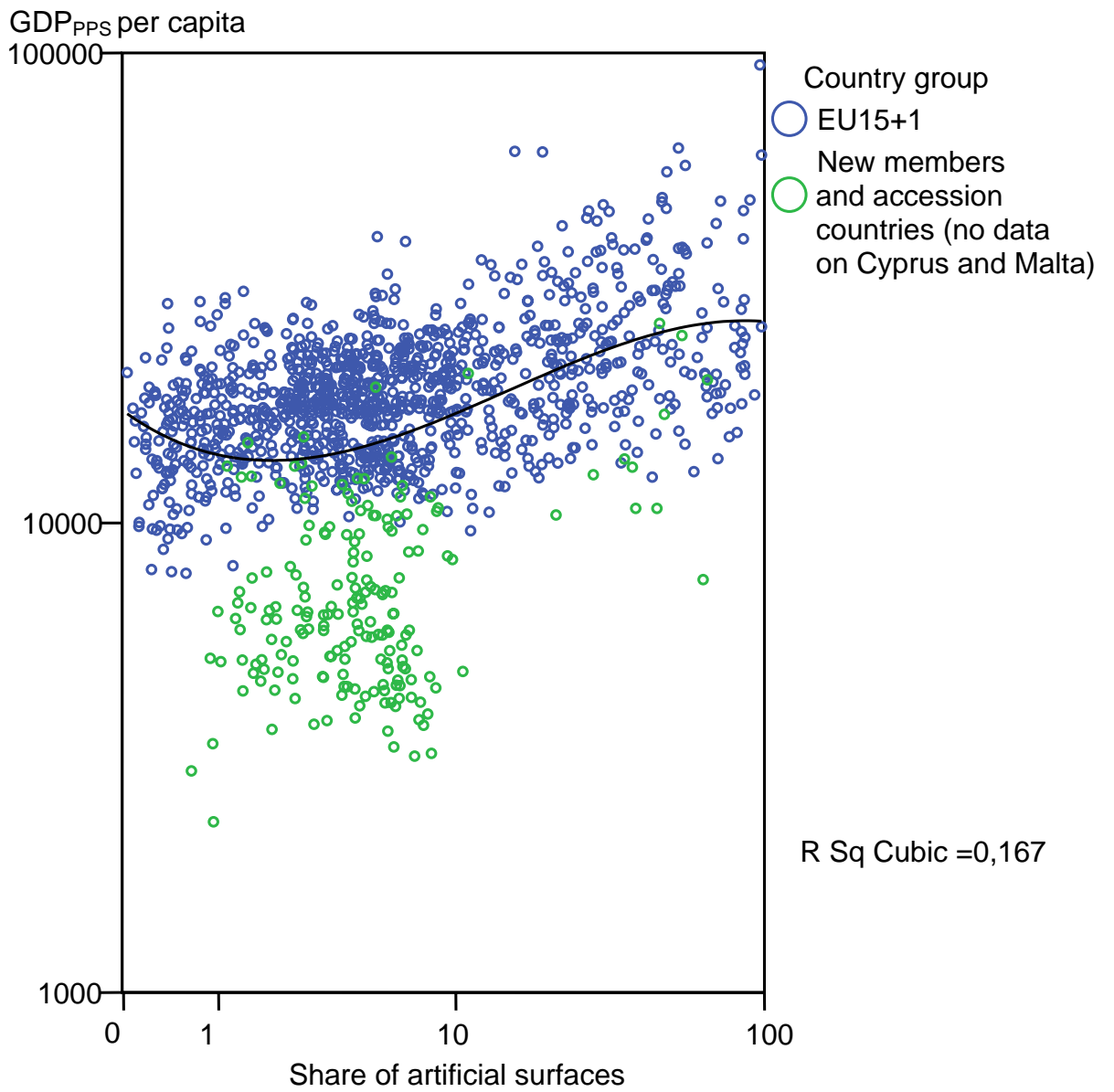
Graph 3.22. Share of artificial surfaces in relation to GDP$_{PPS}$ per capita.
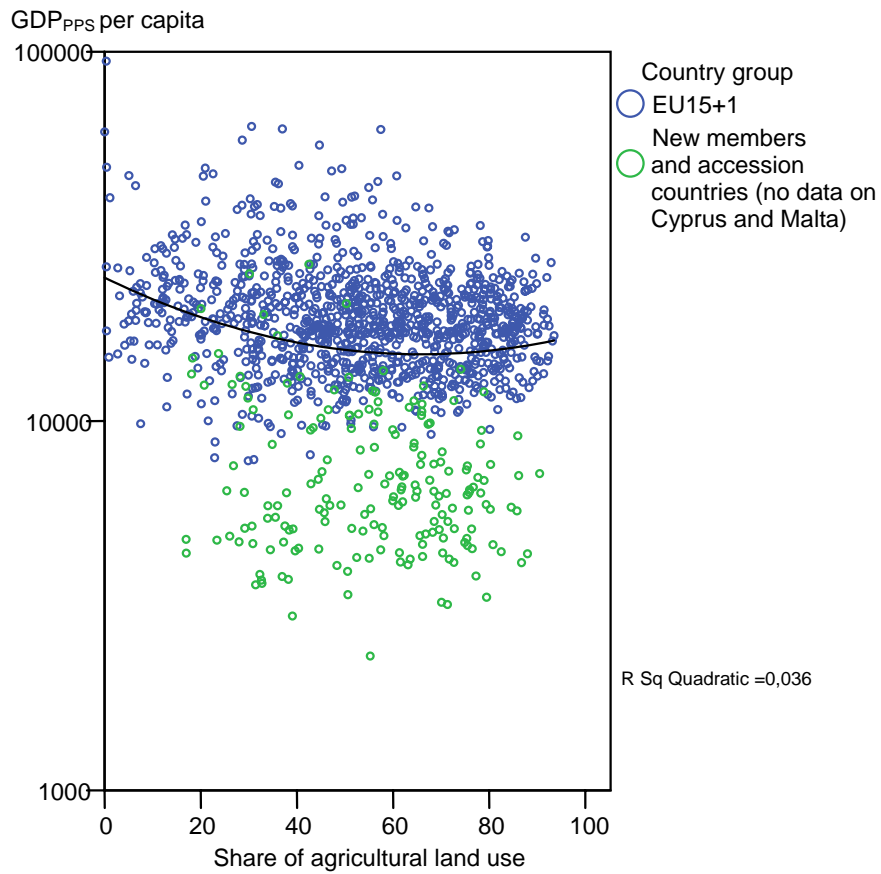
Graph 3.23. Share of agricultural land use in relation to GDP$_{PPS}$ per capita.
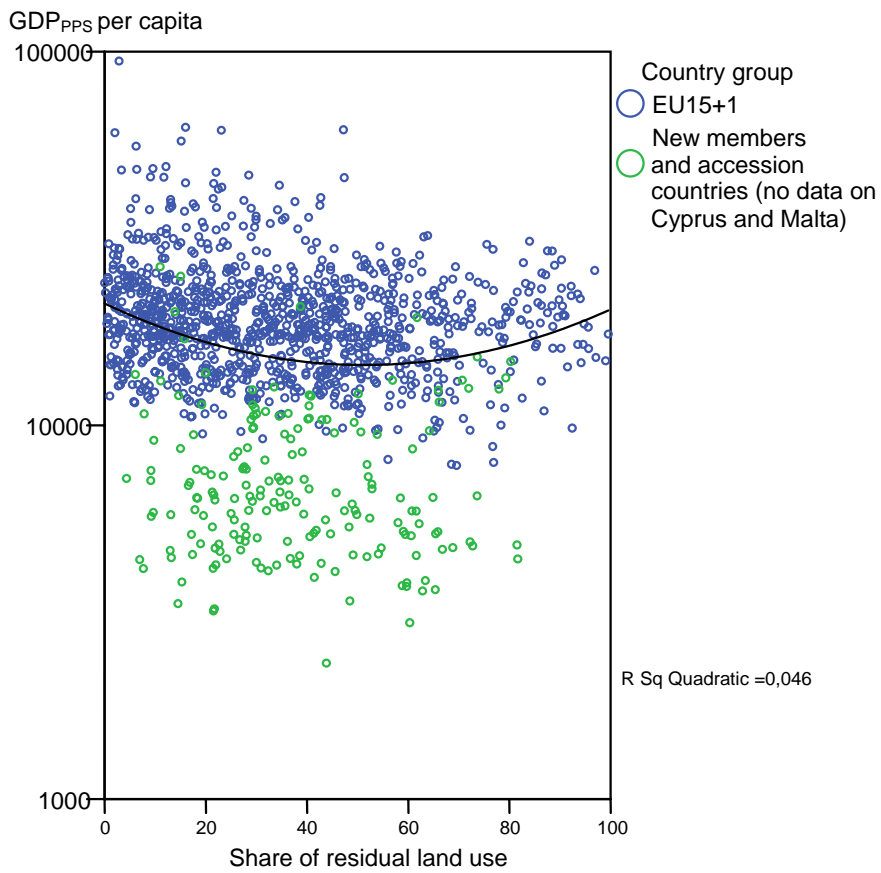
Graph 3.24. Share of residual land use in relation to GDP$_{PPS}$ per capita.
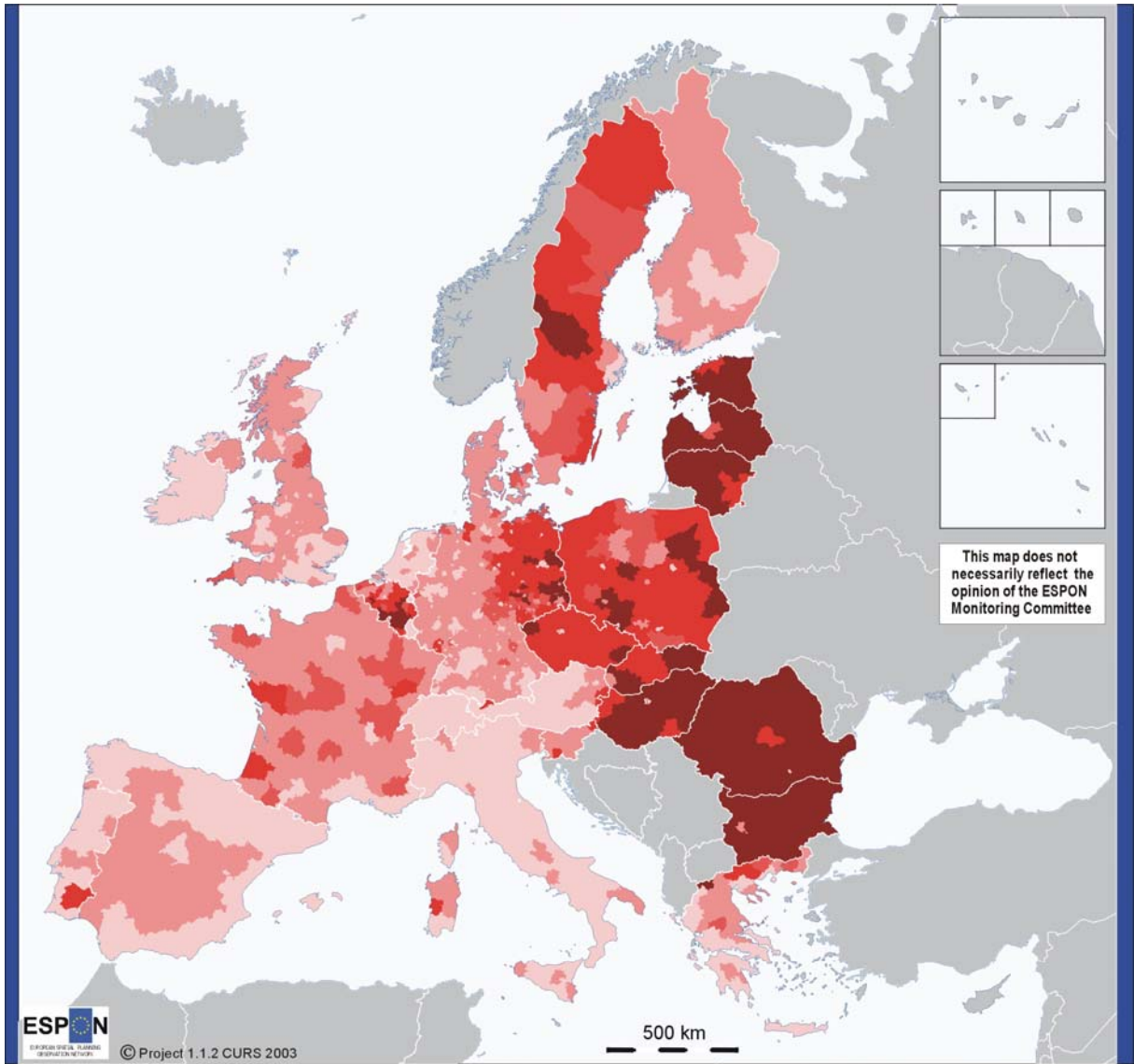
Artificial surfaces per 100 million euros of GDP$_{PPS}$
in NUTS3 regions in 1999

■ 5,4 - 28,7	(136 NUTS3 regions)
■ 3,2 - 5,3	(136)
■ 2,5 - 3,1	(75)
■ 1,3 - 2,4	(472)
□ 0 - 1,2	(472)

The average amount of artificial surfaces per 100 million PPS in EU23+3
is 2,8 km2 / 100 million euros (no land cover data on Cyprus, Malta and Norway).

Map 3.20. Artificial surfaces per GDP$_{PPS}$.
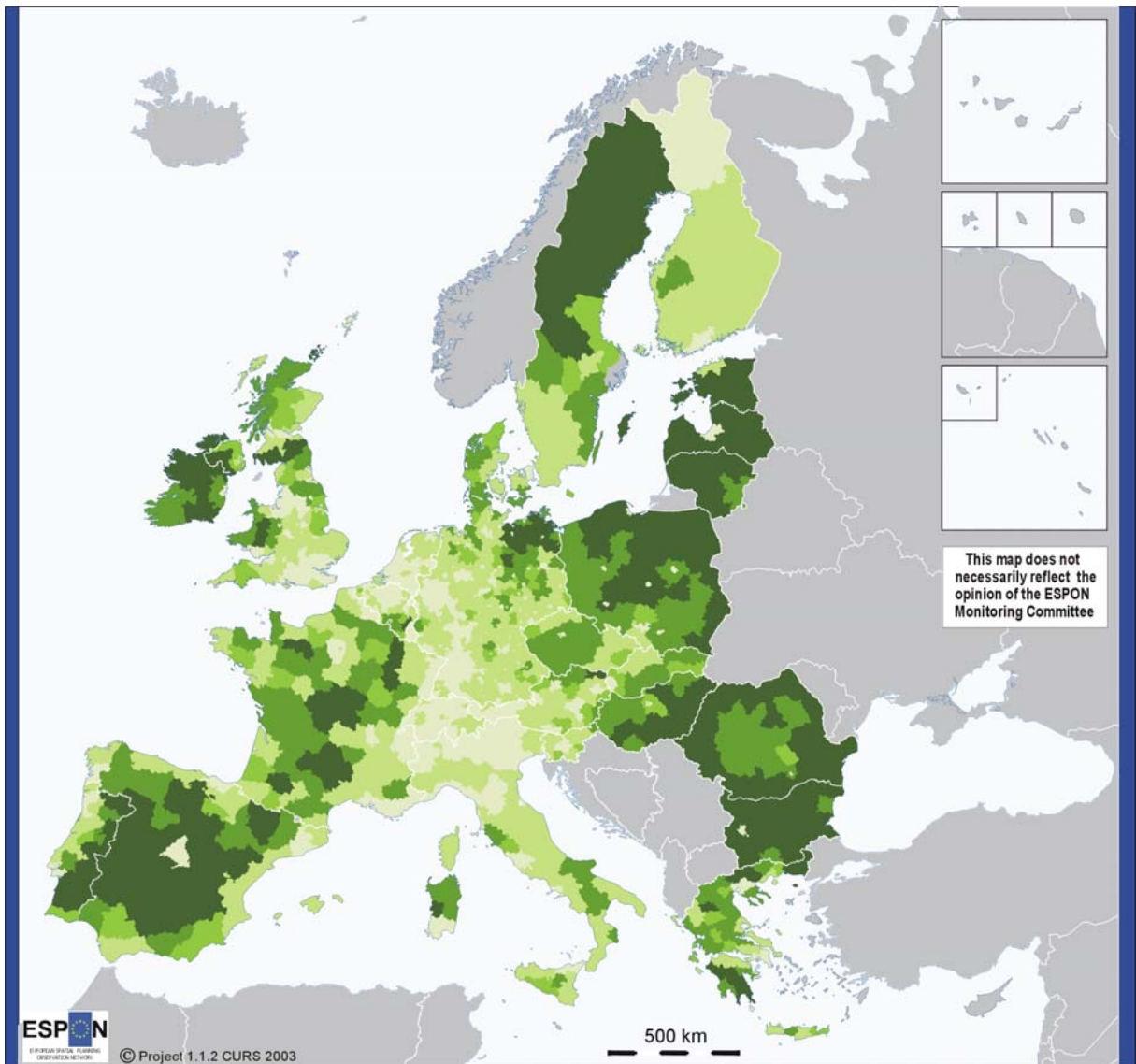
Agricultural land use per GDP$_{PPS}$ in 100 million
euros in NUTS3 regions in 1999

■	95	- 896 ,79	(176 NUTS3 regions)
■	50 ,13	- 94	(175)
■	43 ,18	- 50 ,12	(75)
■	12	- 43 ,17	(432)
■	0	- 11	(433)

The average amount of agricultural land per GDP$_{PPS}$ in EU23+3
is 46,65 km²/100 million euros (no data on Cyprus, Malta and Norway).

Map 3.21. Agricultural land use per GDP$_{PPS}$.

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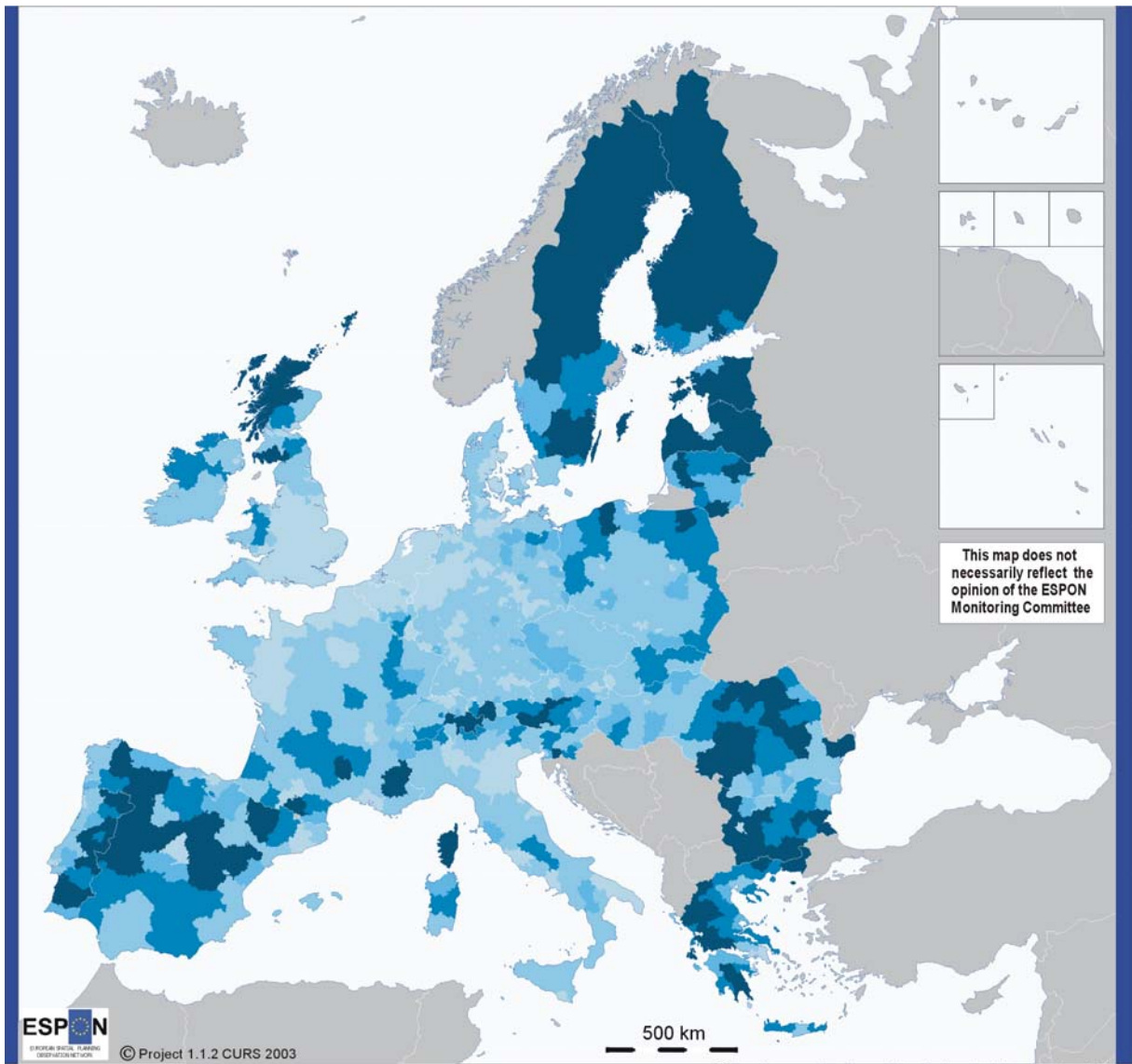
Residual land use per GDP$_{PPS}$ in NUTS3 regions in 1999

122 - 2 699 ,93	(131 NUTS3 regions)
58 ,16 - 121	(130)
41 ,75 - 58 ,15	(75)
6 ,55 - 41 ,74	(478)
0 - 6 ,54	(478)

Residual land use:
Origin of data: EEA, Corine Land Cover 90

GDP$_{PPS}$:
Origin of data: EU15 and CC's: Eurostat
Norway and Switzerland: National
Statistical Offices
Time reference:1999

Source: ESPON Data Base

The average amount of residual land per GDP$_{PPS}$ in EU 23+3
is 49,95 km^2/100 million euros (no data on Cyprys, Malta and Norway).

Map 3.22. Residual land use per GDP$_{PPS}$.

Population change (%) in 1995-1999

Country group

○ EU15+2

○ New members and accession countries

R Sq Cubic =0,071

Population density
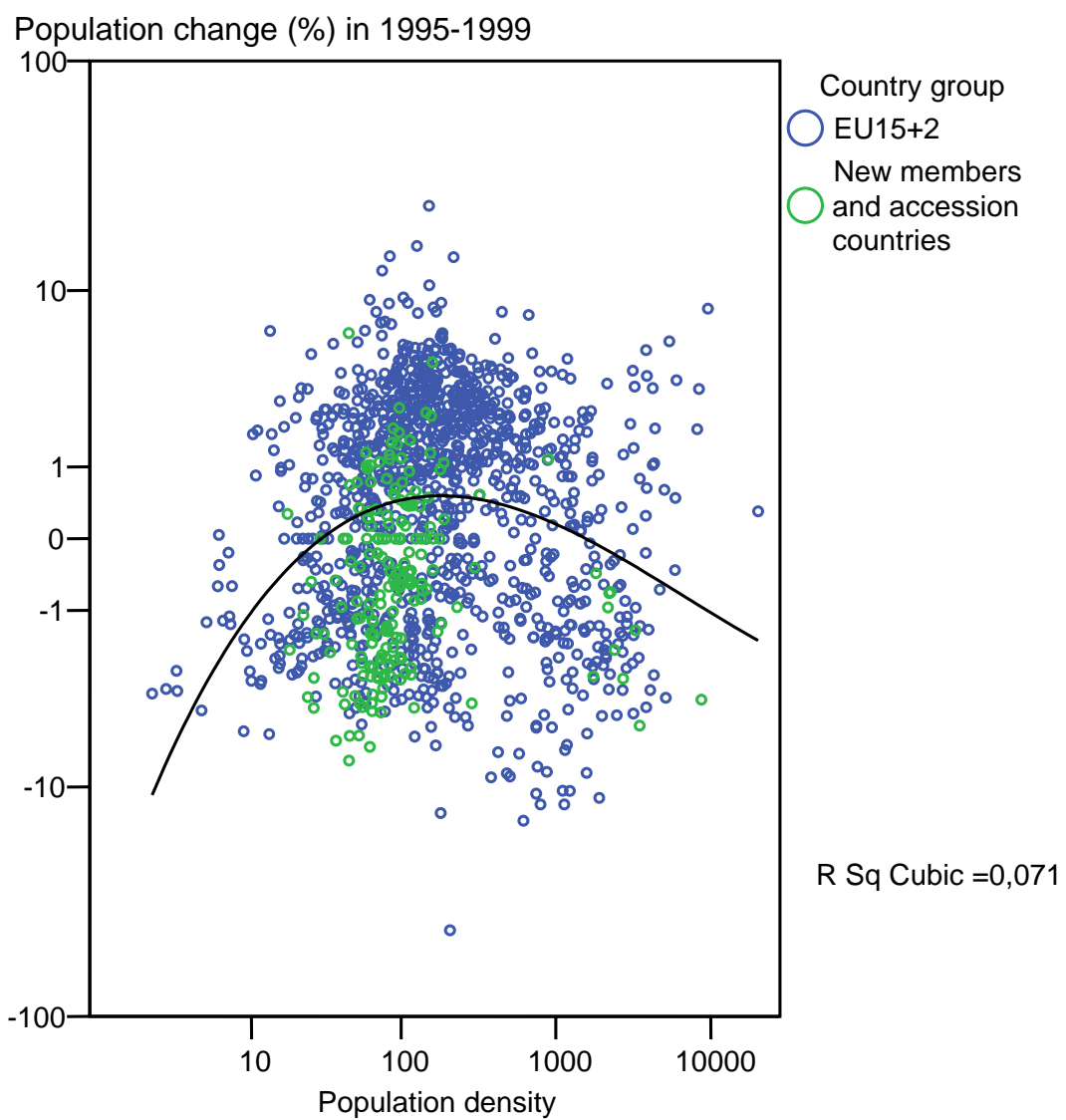
Graph 3.25. Population density in 1999 in relation to population change from 1995 to 1999.
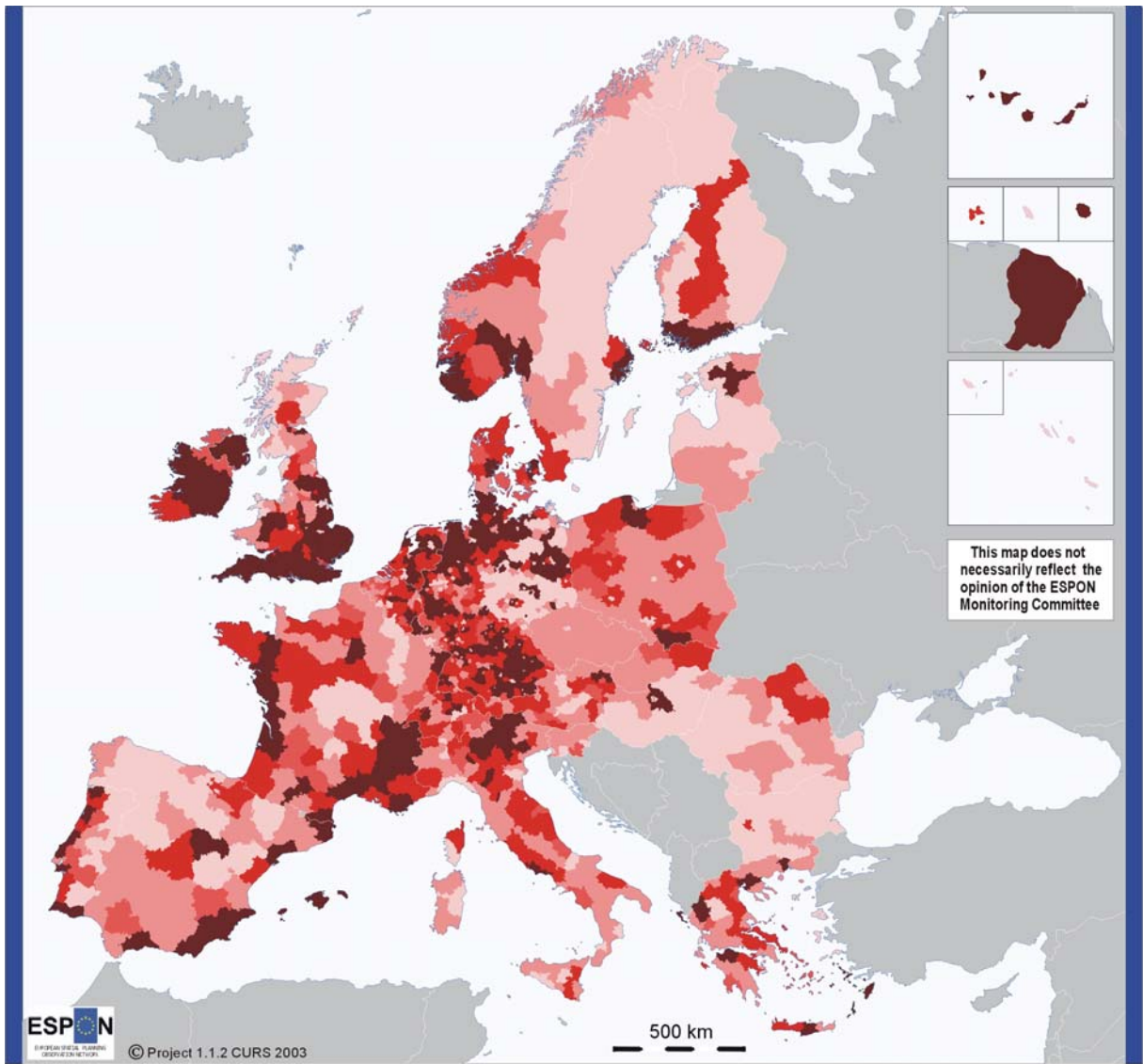
Population change (%) in NUTS3 regionsfrom 1995 to 1999

■	2 ,32	- 23 ,91	(286 NUTS3 regions)
■	0 ,90	- 2 ,31	(287)
■	0 ,55	- 0 ,89	(75)
■	-0 ,94	- 0 ,54	(339)
■	-42 ,92	- -0 ,93	(339)

The average population change in EU23+4 from 1995 to 1999 is 0,72% (no data on Cyprus and Malta).

Map 3.23. Population change from 1995 to 1999.

Population change (%) in 1995-1999

FUA typology

Population change (%) in 1995-1999

Country group
■ EU15+2
■ New members
  and accession
  countries
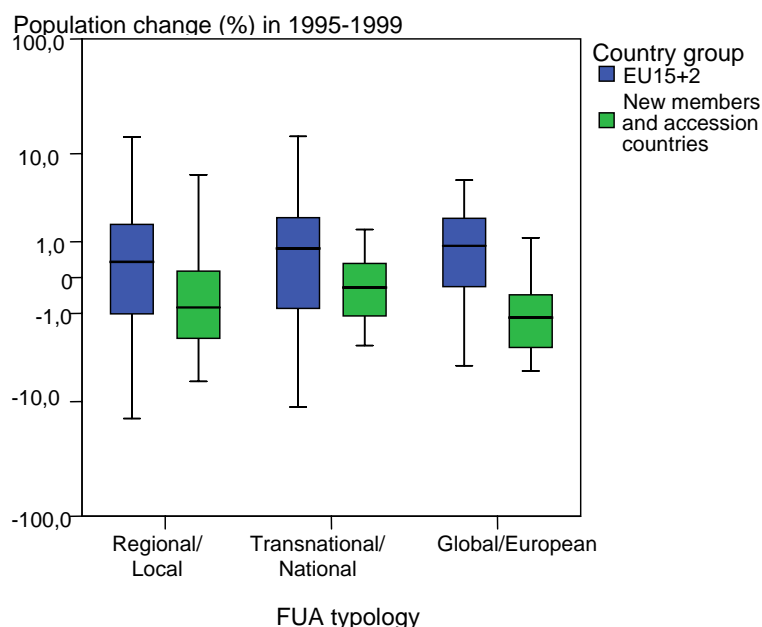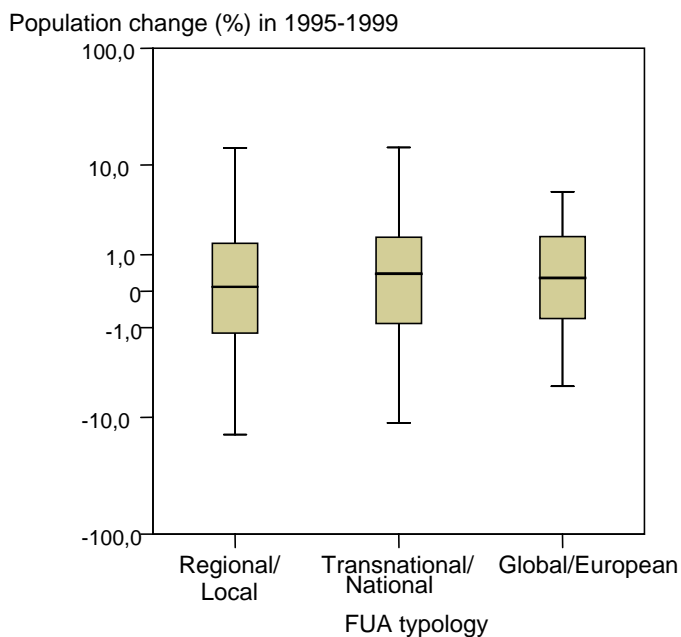
FUA typology

Population change (%) in 1995-1999

FUA typology	Country group	N	Median	Minimum	Maximum	Range
Regional/ Local	EU15+2	469	0,35	-14,3	14,2	28,4
	New members and accession countries	110	-0,78	-6,5	6,3	12,8
	Total	579	0,09	-14,3	14,2	28,4
Transnational/ National	EU15+2	204	0,76	-11,2	14,3	25,6
	New members and accession countries	44	-0,21	-2,7	1,5	4,3
	Total	248	0,39	-11,2	14,3	25,6
Global/ European	EU15+2	58	0,85	-4,5	5,6	10,1
	New members and accession countries	18	-1,18	-5,1	1,2	6,3
	Total	76	0,29	-5,1	5,6	10,7
Total	EU15+2	1 130	0,80	-42,9	23,9	66,8
	New members and accession countries	188	-0,56	-7,5	6,3	13,8
	Total	1 318	0,47	-42,9	23,9	66,8

Graph 3.26. FUA ranking in relation to population change from 1995 to 1999.
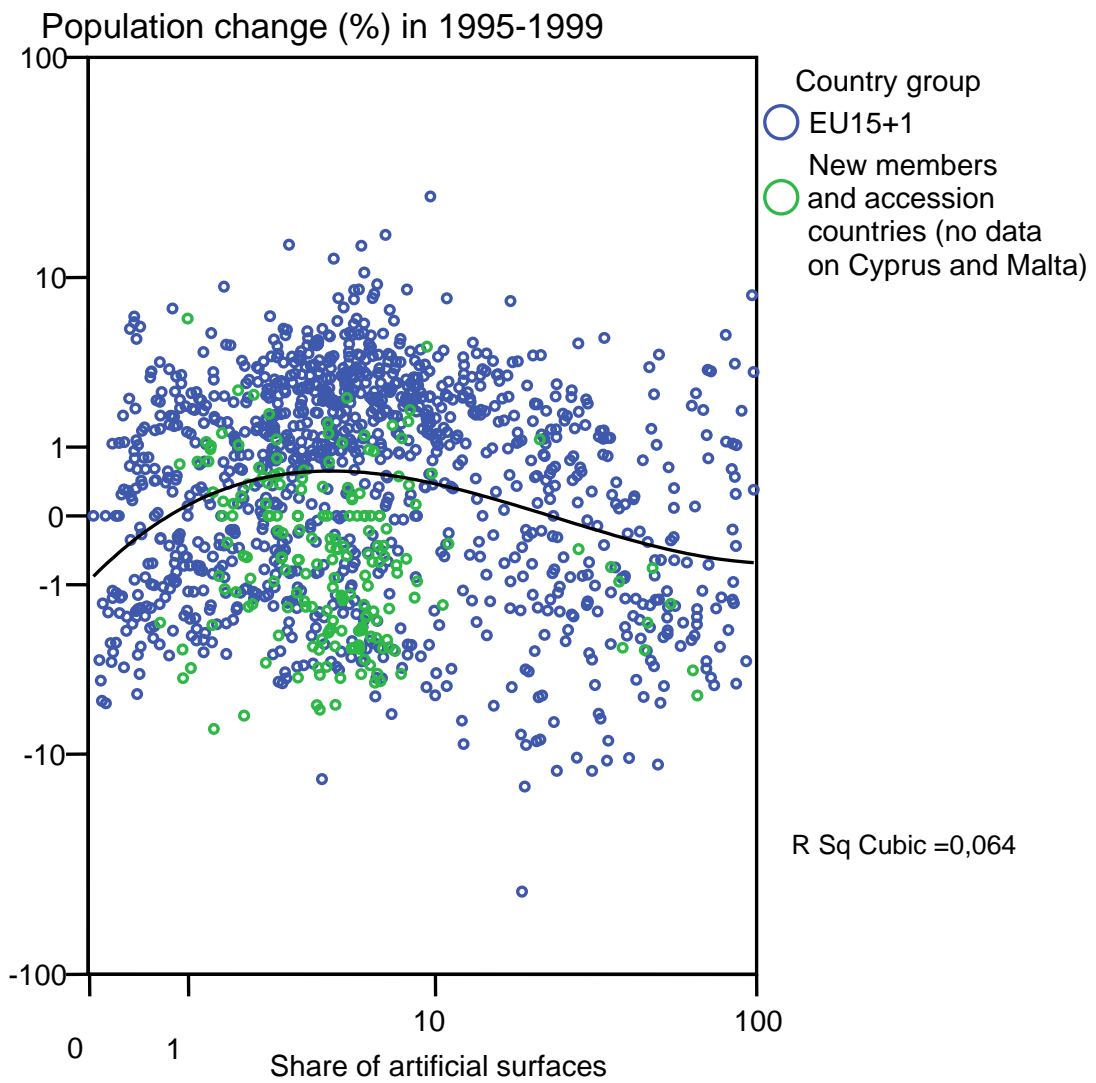
Graph 3.27. Share of artificial surfaces in relation to population change from 1995 to 1999.
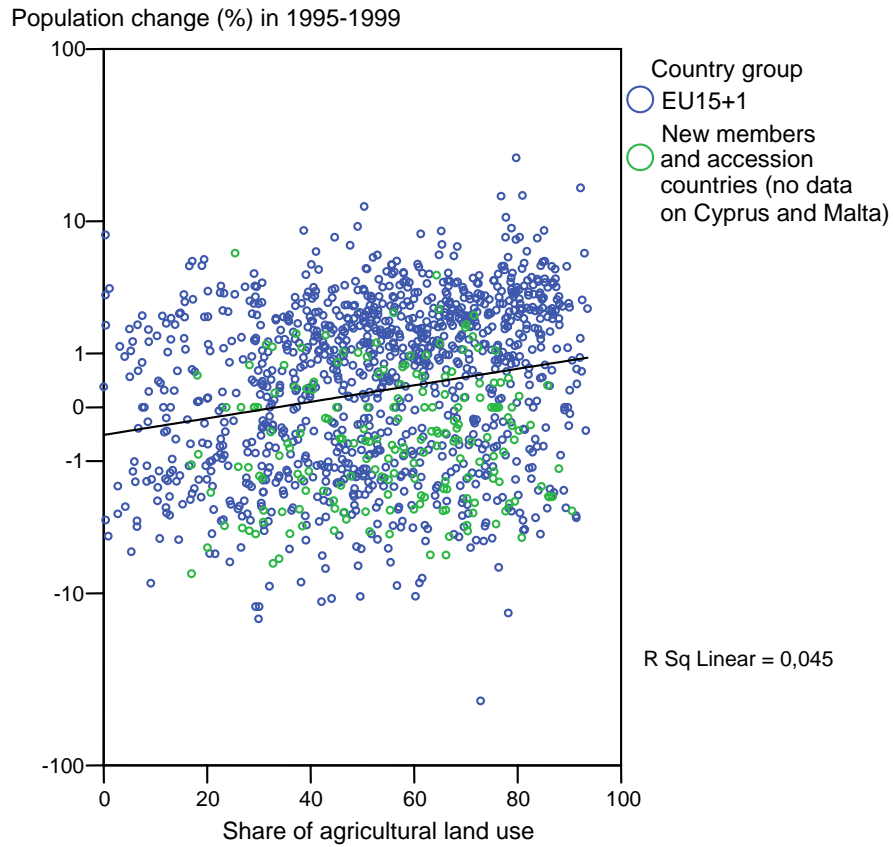
Graph 3.28. Share of agricultural land use in relation to population change from 1995 to 1999.
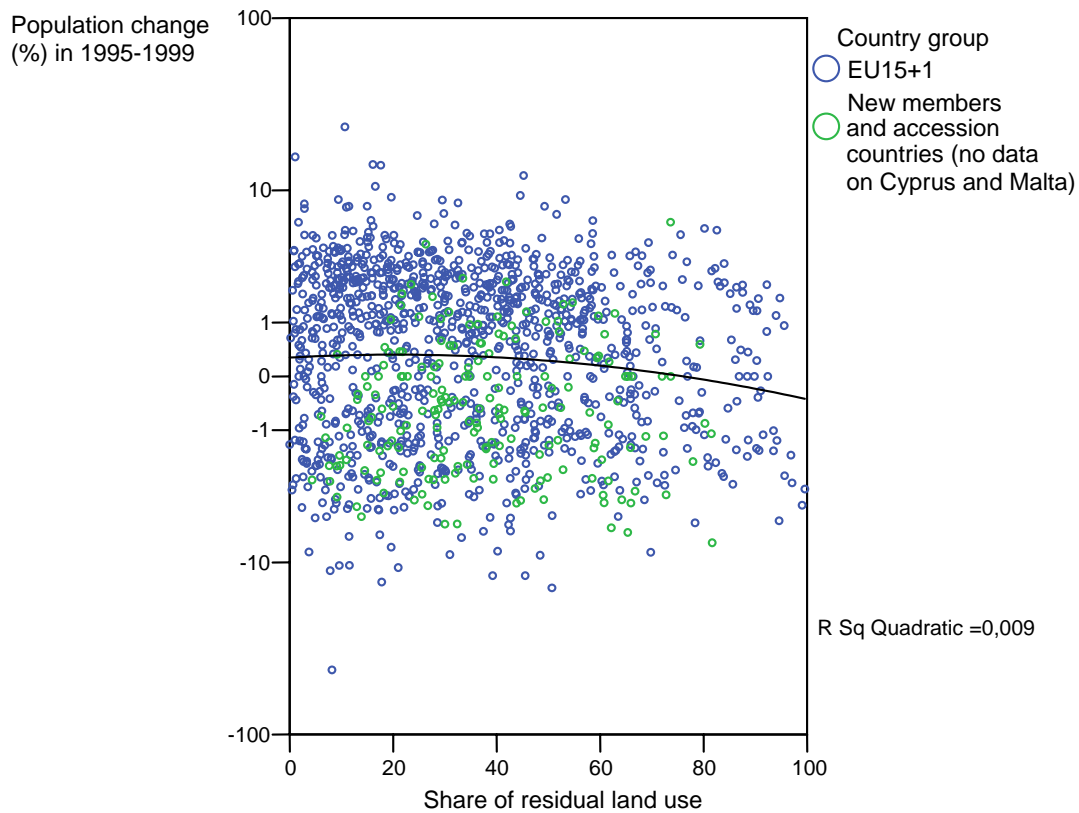
Graph 3.29. Share of residual land use in relation to population change from 1995 to 1999.

Population change (%) in 1995-1999

Country group

○ EU15+2

○ New members and accession countries

R Sq Cubic =0,068
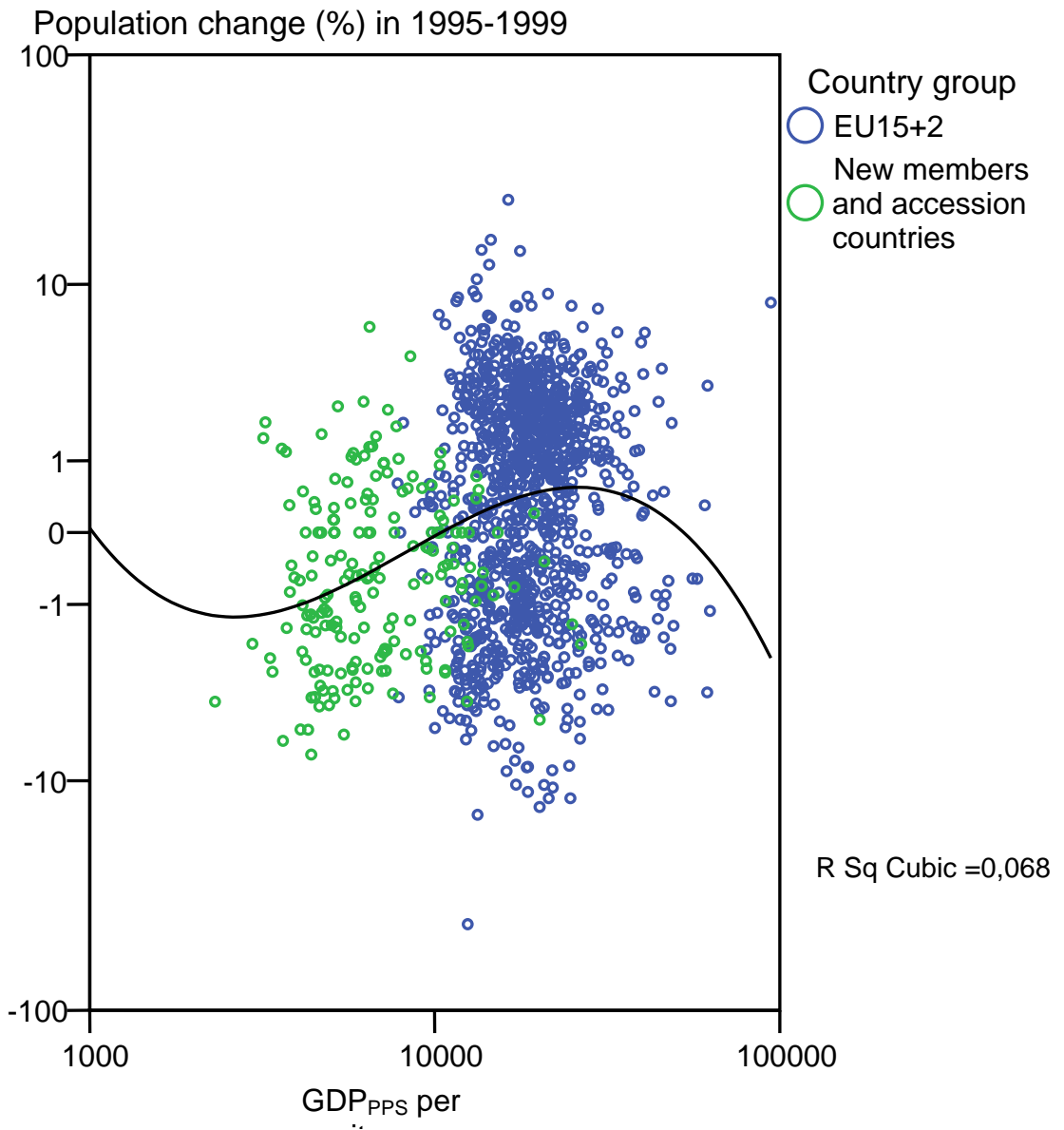
GDP_{PPS} per

Graph 3.30. GDP_{PPS} per capita in relation to population change from 1995 to 1999.

Population density

Population density

Population density
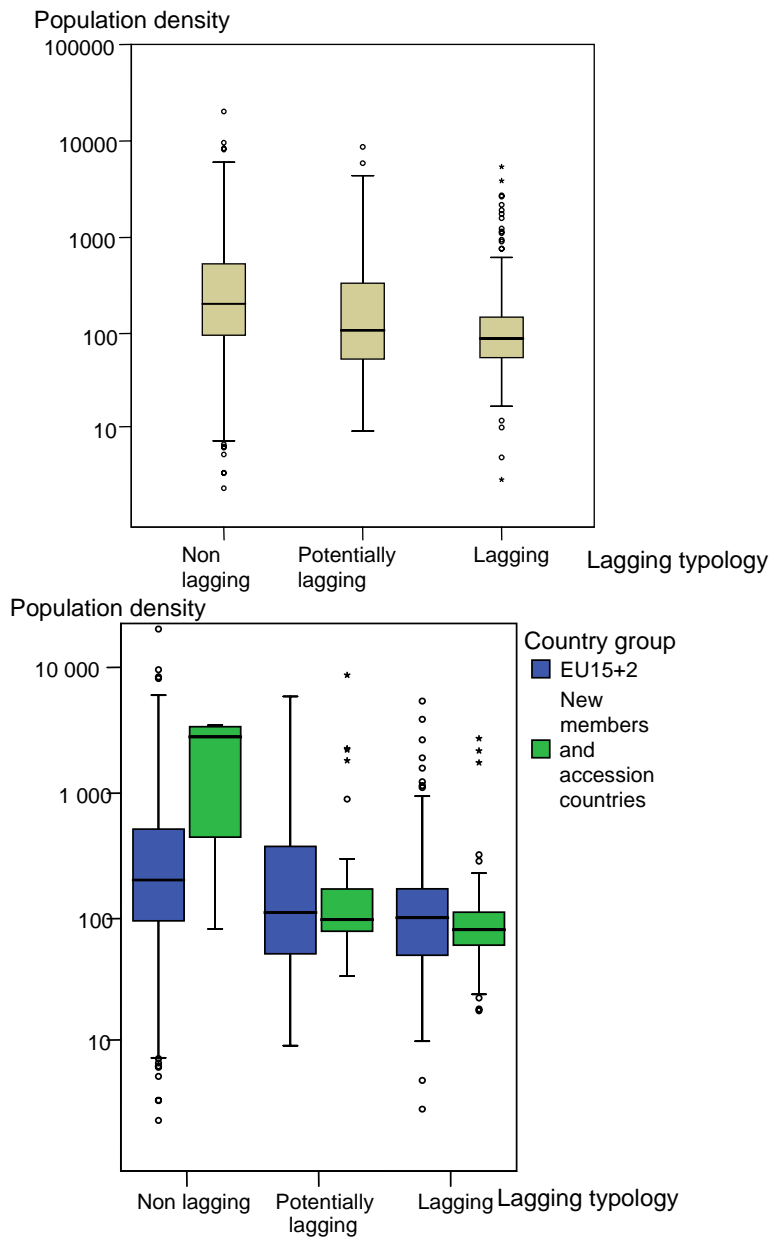
Lagging typology	Country group	N	Median	Minimum	Maximum	Range
Non lagging	EU15+2	725	203	2	20 161	20 160
	New members and accession countries	4	2834	82	3 476	3 394
	Total	729	204	2	20 161	20 160
Potentially lagging	EU15+2	224	112	9	5 864	5 855
	New members and accession countries	29	98	34	8 677	8 642
	Total	253	107	9	8 677	8 668
Lagging	EU15+2	181	101	2	5 392	5 390
	New members and accession countries	156	81	18	2 722	2 704
	Total	337	88	2	5 392	5 390
Total	EU15+2	1 130	157	2	20 161	20 160
	New members and accession countries	189	84	18	8 677	8 659
	Total	1 319	137	2	20 161	20 160

Graph 3.31. Lagging typology (from ESPON Action 2.1.1) in relation to population density.

Population change (%) in 1995-1999

Population change (%) in 1995-1999
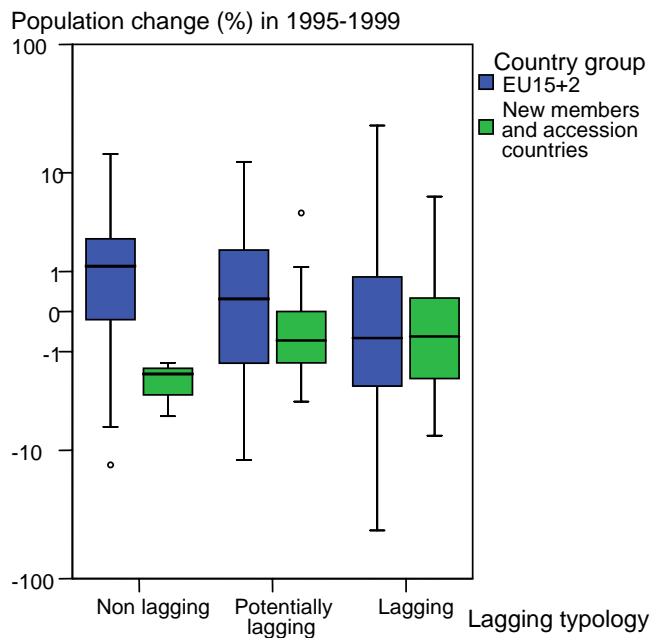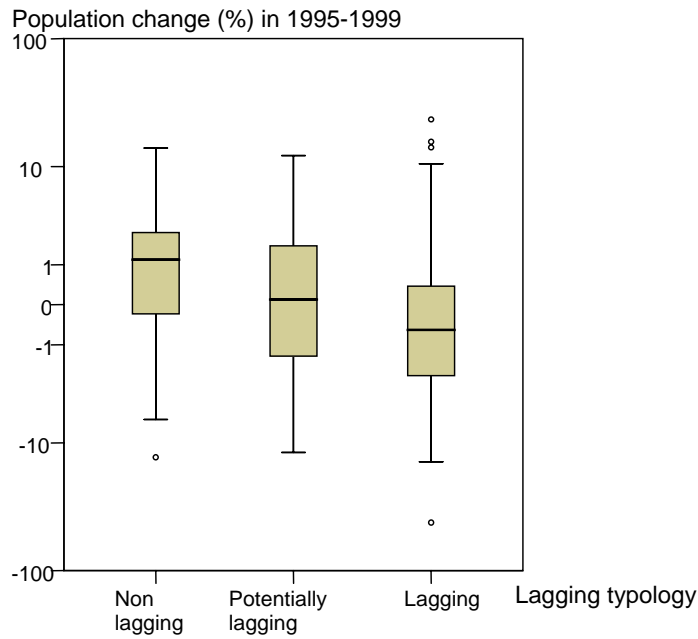
Population change (%) in 1995-1999

Lagging typology	Country group	N	Median	Minimum	Maximum	Range
Non lagging	EU15+2	726	1,19	-13,2	14,2	27,3
	New members and accession countries	3	-1,93	-5,1	-1,4	3,7
	Total	729	1,18	-13,2	14,2	27,3
Potentially lagging	EU15+2	225	0,24	-12,0	12,3	24,3
	New members and accession countries	29	-0,64	-3,7	4,5	8,2
	Total	254	0,09	-12,0	12,3	24,3
Lagging	EU15+2	187	-0,58	-42,9	23,9	66,8
	New members and accession countries	156	-0,53	-7,5	6,3	13,8
	Total	343	-0,55	-42,9	23,9	66,8
Total	EU15+2	1 138	0,80	-42,9	23,9	66,8
	New members and accession countries	188	-0,55	-7,5	6,3	13,8
	Total	1 326	0,47	-42,9	23,9	66,8

Graph 3.32 Lagging typology (from ESPON Action 2.1.1.) in relation to population change from 1995 to 1999.
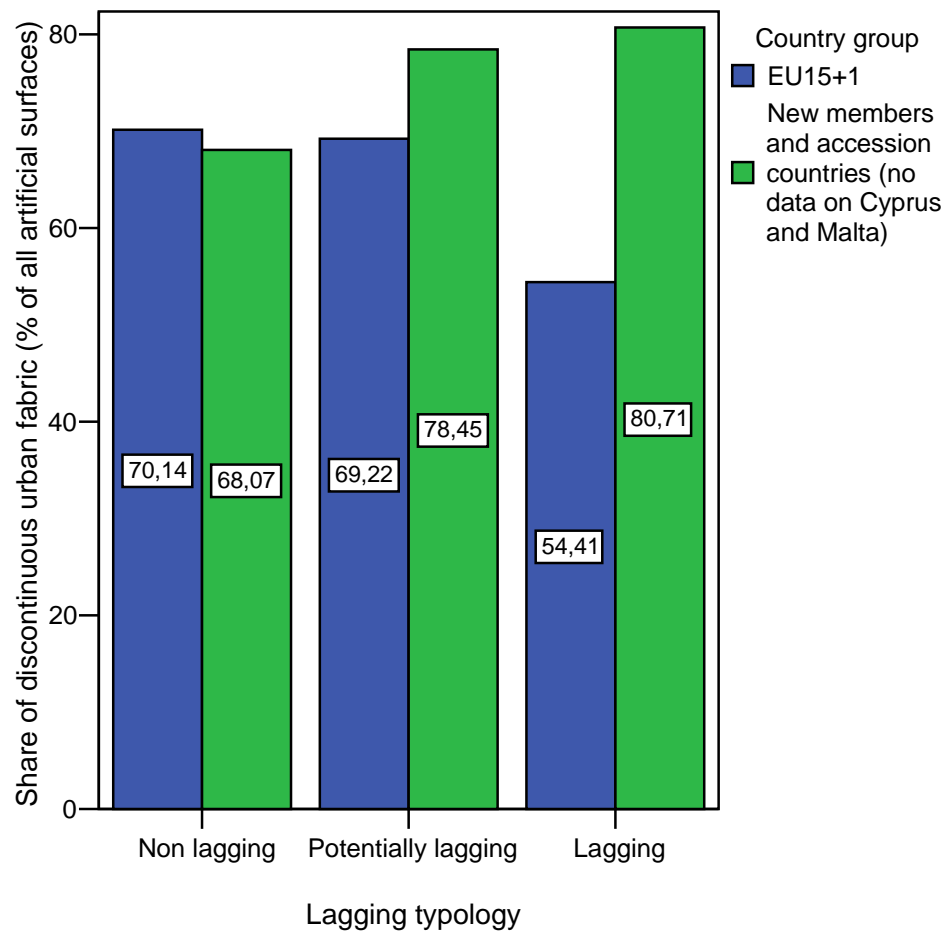
Graph 3.33. Lagging typology (from ESPON Action 2.1.1.) in relation to share of discontinuous urban fabric.

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee

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Urban-rural typology, based on population density, FUA ranking and land cover

- ■ High urban influence, high human intervention
- ■ High urban influence, medium human intervention
- ■ High urban influence, low human intervention
- ■ Low urban influence, high human intervention
- ■ Low urban influence, medium human intervention
- ■ Low urban influence, low human intervention

Ranking of Functional Urban Areas (FUAs):
Origin of data: EUROSTAT, National Statistical Offices, National experts
Source: Nordregio, ESPON Data Base

Population density:
Origin of data: EU15 and CC's: Eurostat
Norway and Switzerland:
National Statistical Offices
Time reference:1999

Land cover types:
Origin of data: EEA, Corine Land Cover 90

Source: ESPON Data Base

The criteria for urban influence:
- Population density above the average (107 inhabitants/km^2 in EU25+4)
- And/or at least a European level functional urban area (based on typology made by ESPON Action 1.1.1)

Degree of human intervention is estimated through the average shares of land covers (in EU23+3, no data on Cyprus, Malta and Norway):
High human intervention: at least the share of artificial surfaces above average (3,48%)
Medium human intervention: at least the share of agricultural land above average (50,36%)
Low human intervention: only the share of residual land use above average (46,16%)

Map 3.24. Urban–rural typology.

Urban-rural typology	Number of NUTS3 regions	Total area in km²	Total area as % from EU 25+4	Total population in 1999	Total population as % of EU 25+4 total	Population change from 1995 to 1999 (%)	Index of population change (100 = EU25+4 average)	Accessibility to transportation terminals (minutes)	Index of accessibility, reversed (100 = EU25+4 average)
EU 25+3									
1	691	906 881	19	299 173 237	60	0,84	118	33,00	134
2	52	204 887	4	25 990 947	5	1,06	149	56,64	78
3	34	127 231	3	17 743 721	4	1,01	142	47,91	92
4	131	523 154	11	42 177 800	9	-0,18	-26	64,93	68
5	184	1 049 959	22	57 913 200	12	0,64	91	61,28	72
6	201	1 440 310	31	42 021 486	8	0,08	11	64,40	68
Total	**1 293**	**4 252 420**	**91**	**485 020 391**	**98**	**0,68**	**96**	**43,69**	**101**
Areas not in typology	36	442 103	9	9 925 329	2	2,81	390	81,07	184
EU15+1									
1	643	711 652	15	257 320 237	52	1,10	153	29,65	149
2	42	115 629	2	15 951 947	3	1,54	214	49,27	90
3	33	124 847	3	17 486 721	4	1,02	141	47,92	92
4	57	141 717	3	12 170 800	2	2,21	307	46,18	96
5	156	815 493	17	42 758 200	9	0,78	109	56,61	78
6	174	1 266 578	27	34 710 486	7	0,28	39	62,43	71
Total	**1105**	**3 175 916**	**68**	**380 398 391**	**77**	**1,04**	**145**	**37,87**	**116**
EU 10+2									
1	48	195 229	4	41 853 000	8	-0,78	-109	53,58	82
2	10	89 258	2	10 039 000	2	0,30	41	68,35	65
3	1	2 384	0	257 000	0	0,39	54	47,26	93
4	74	381 436	8	30 007 000	6	-1,15	-160	72,54	61
5	28	234 465	5	15 155 000	3	0,24	34	74,43	59
6	27	173 732	4	7 311 000	1	-0,88	-122	73,75	60
Total	**188**	**1 076 504**	**23**	**104 622 000**	**21**	**-0,64**	**-89**	**64,85**	**68**
EU 25+4	**1 329**	**4 694 523**	**100**	**494 945 720**	**100**	**0,72**	**100**	**44,10**	**100**

| Urban-rural typology	Total GDPpps in 1999	GDPpps as % of EU25+4 total	GDPpps per capita in 1999	Index of GDPpps per capita (100 = EU 25+4 avg)	Change of GDPpps per capita from 1995 to 1999	Percentage change of GDPpps per capita	Index of the percentage change of GDPpps (100 = EU25+4 average)	Employment in agriculture, forestry and fishing (% of the total work force)	Population density	Index of population density (100 = EU 25+4 average)
EU 25+3										
1	6 453 790	70	21 572	116	3 721	21	100	N/A	330	308
2	358 441	4	13 791	74	2 668	26	125	N/A	127	119
3	312 803	3	17 629	95	3 034	22	106	N/A	139	130
4	404 005	4	9 579	52	1 254	13	60	N/A	81	75
5	818 486	9	14 133	76	2 520	24	112	N/A	55	52
6	661 896	7	15 751	85	2 622	20	97	N/A	29	27
Total	**9 009 422**	**98**	**18 575**	**100**	**3 186**	**21**	**100**	**N/A**	**114**	**106**
Areas not in typology	182 581	2	18 396	99	4 608	27	129	N/A	16	15
EU15+1										
1	6 007 777	65	23 347	126	3 953	20	97	2,49	361	338
2	286 082	3	17 934	97	3 264	23	109	11,22	138	129
3	309 410	3	17 694	95	3 041	22	106	10,90	140	131
4	217 990	2	17 911	96	2 585	17	82	6,96	86	80
5	719 711	8	16 832	91	2 908	21	102	10,99	52	49
6	613 761	7	17 682	95	2 934	21	98	10,25	27	25
Total	**8 154 731**	**89**	**21 437**	**115**	**3 628**	**21**	**98**	**4,70**	**119**	**112**
EU 10+2										
1	446 013	5	9 674	52	1 604	25	117	N/A	214	200
2	72 359	1	6 512	35	1 650	33	157	N/A	112	105
3	3 393	0,04	13 204	71	2 587	24	116	N/A	108	101
4	186 015	2	5 768	31	502	11	53	N/A	79	74
5	98 776	1	6 260	34	1 624	34	164	N/A	65	60
6	48 135	1	5 902	32	1 114	21	102	N/A	43	41
Total	**854 691**	**9**	**6 904**	**37**	**1 321**	**22**	**102**	**N/A**	**97**	**91**
EU 25+4	**9 192 003**	**100**	**18 572**	**100**	**3 204**	**21**	**100**	**4,70**	**107**	**100**

Table 3.6. Urban–rural typology in relation to core indicators.

Population change (%) in 1995-1999
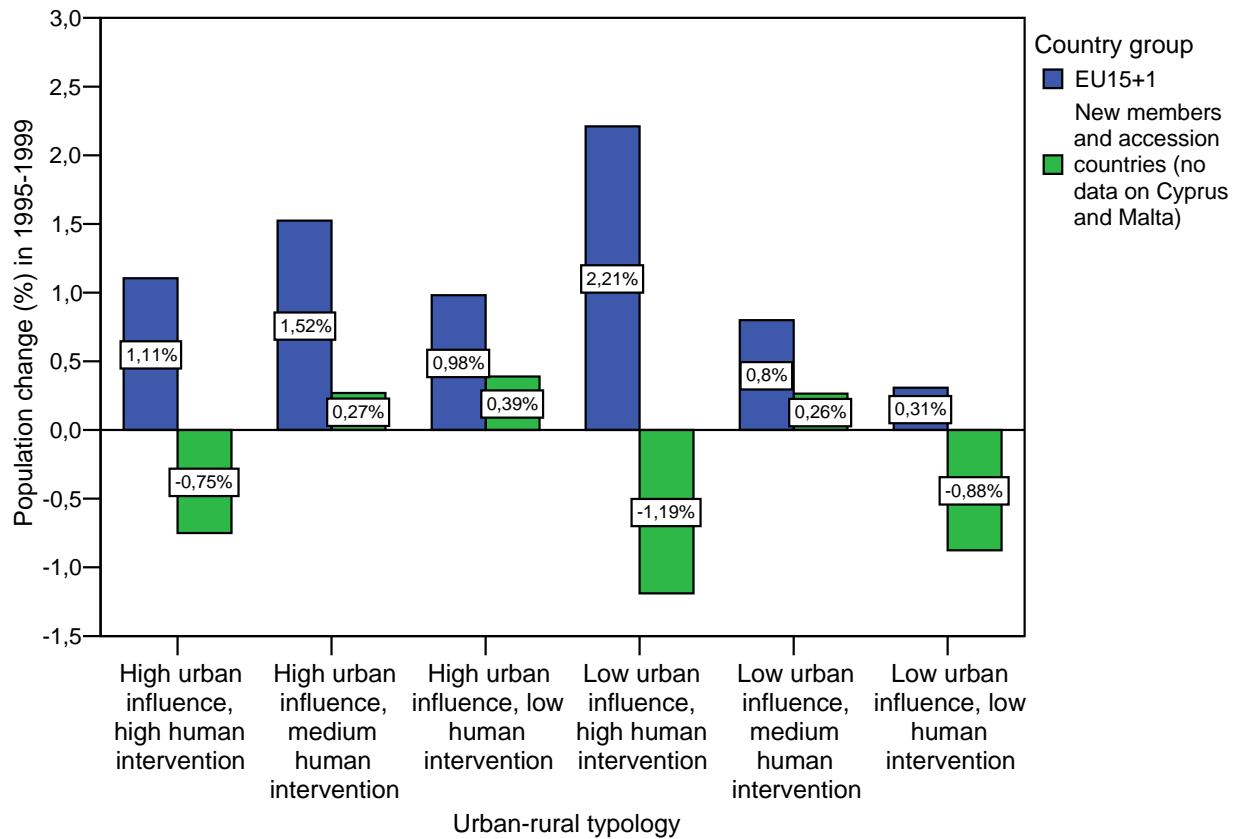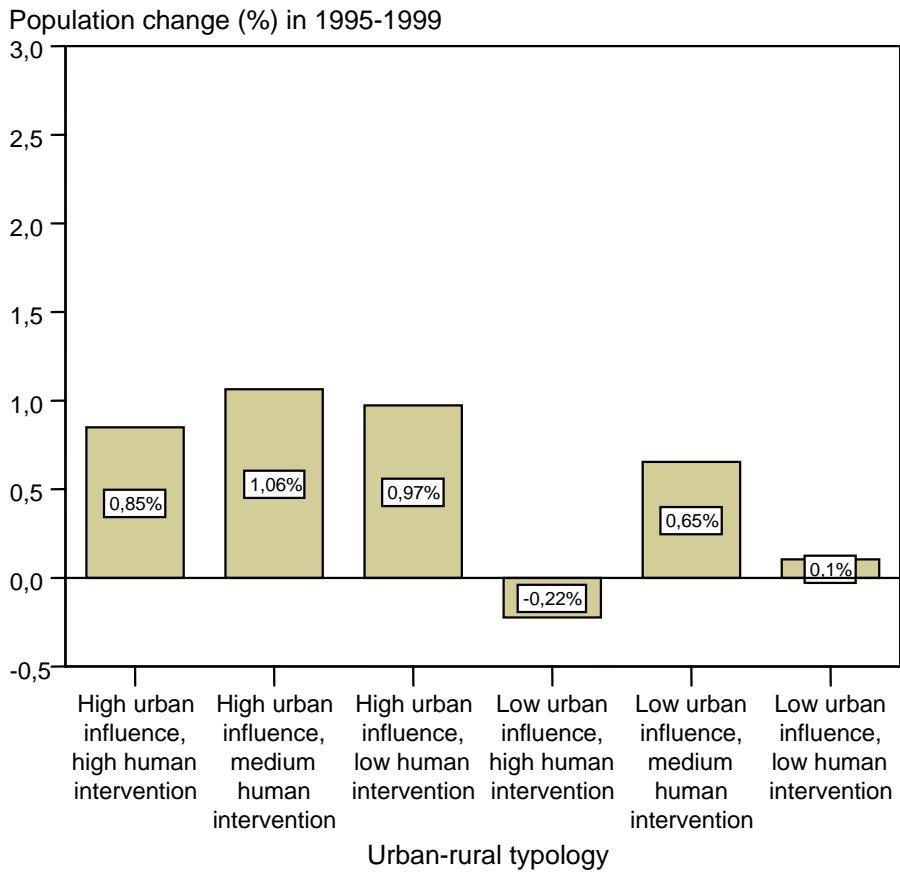
Graph 3.34. Population change from 1995 to 1999 in relation to urban–rural typology.
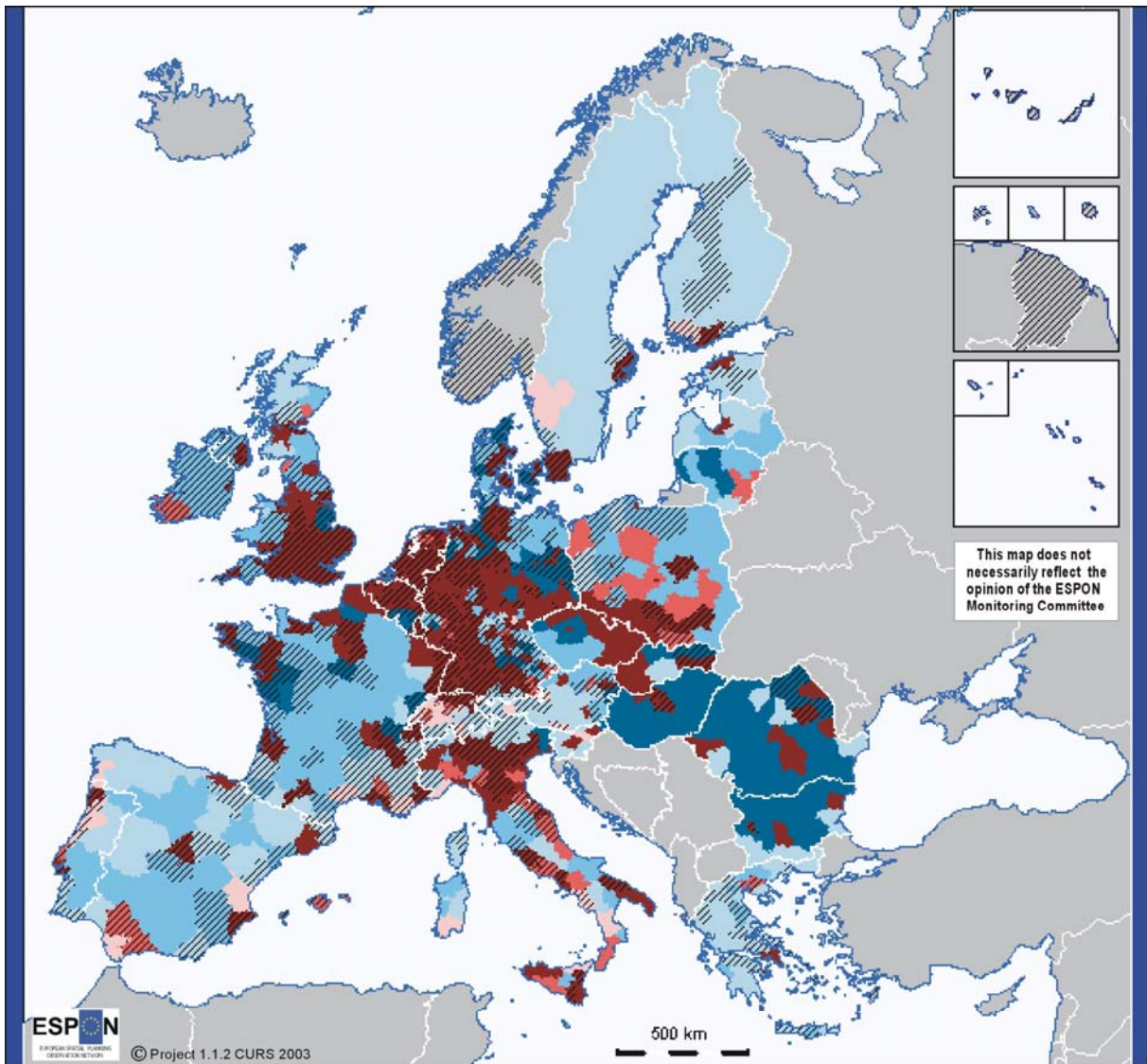
Urban-rural typology, based on population
density, FUA ranking and land cover

■ High urban influence, high human intervention
■ High urban influence, medium human intervention
■ High urban influence, low human intervention
■ Low urban influence, high human intervention
■ Low urban influence, medium human intervention
■ Low urban influence, low human intervention

Population change (%) from 1995 to 1999
(EU23+4 average is 0,72%, no data on Cyprus and Malta)

▨ 0,73 - 100 %   (612 NUTS3 regions)
☐ -42 ,91 -   0 ,72 (714)

The criteria for urban influence:
- Population density above the average (107 inhabitants/km^2 in EU25+4)
- And/or at least a european level functional urban area (based on ranking made by ESPON
Action 1.1.1)

Degree of human intervention is estimated through the average shares of land use
(in EU23+3, no data on Cyprus, Malta and Norway):
High human intervention: at least the share of artificial surfaces above average (3,48%)
Medium human intervention: at least the share of agricultural land above average (50,36%)
Low human intervention: only the share of residual land use above average (46,16%)

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Ranking of Functional Urban Areas (FUAs):
Origin of data: EUROSTAT, National Statistical
Offices, National experts
Source: Nordregio, ESPON Data Base

Population density and population change:
Origin of data: EU15 and CC's: Eurostat
Norway and Switzerland:
National Statistical Offices
Time reference:1999

Land cover types:
Origin of data: EEA, Corine Land Cover 90

Source: ESPON Data Base

Map 3.25. Population change from 1995 to 1999 in relation to urban–rural typology.

Graph 3.35. GDP_{PPS} per capita in relation to urban–rural typology.

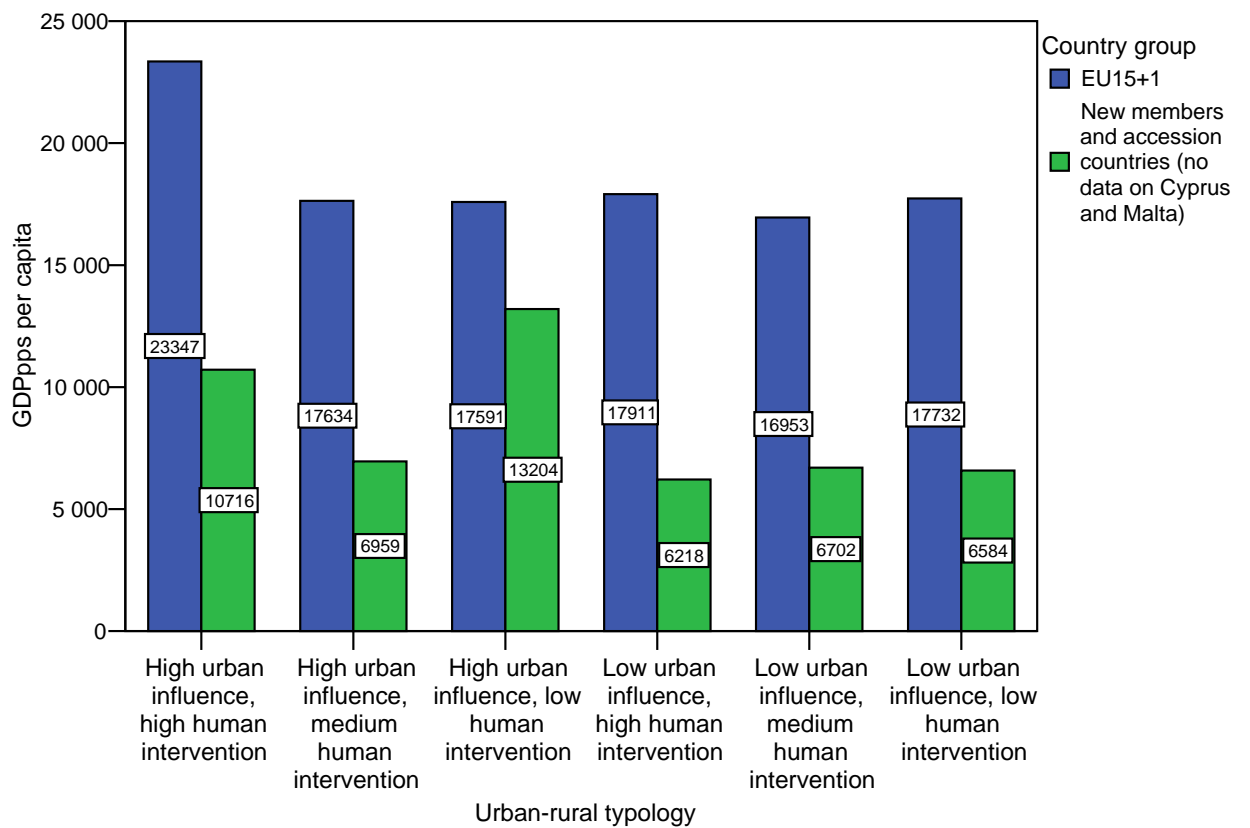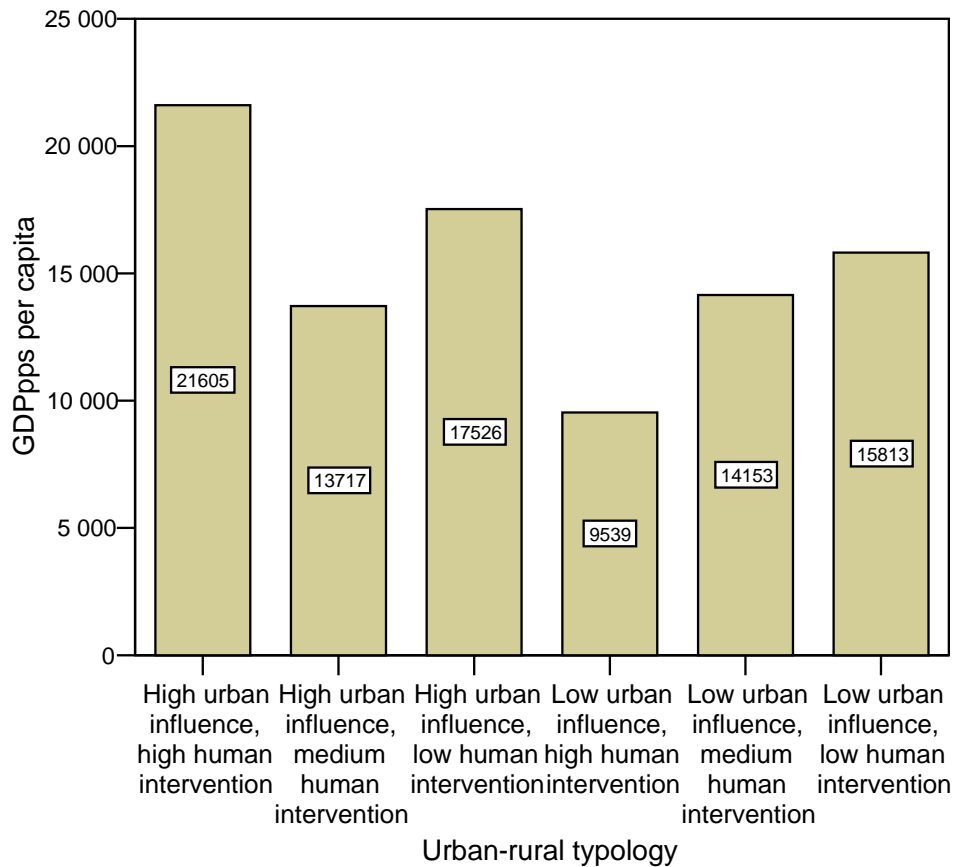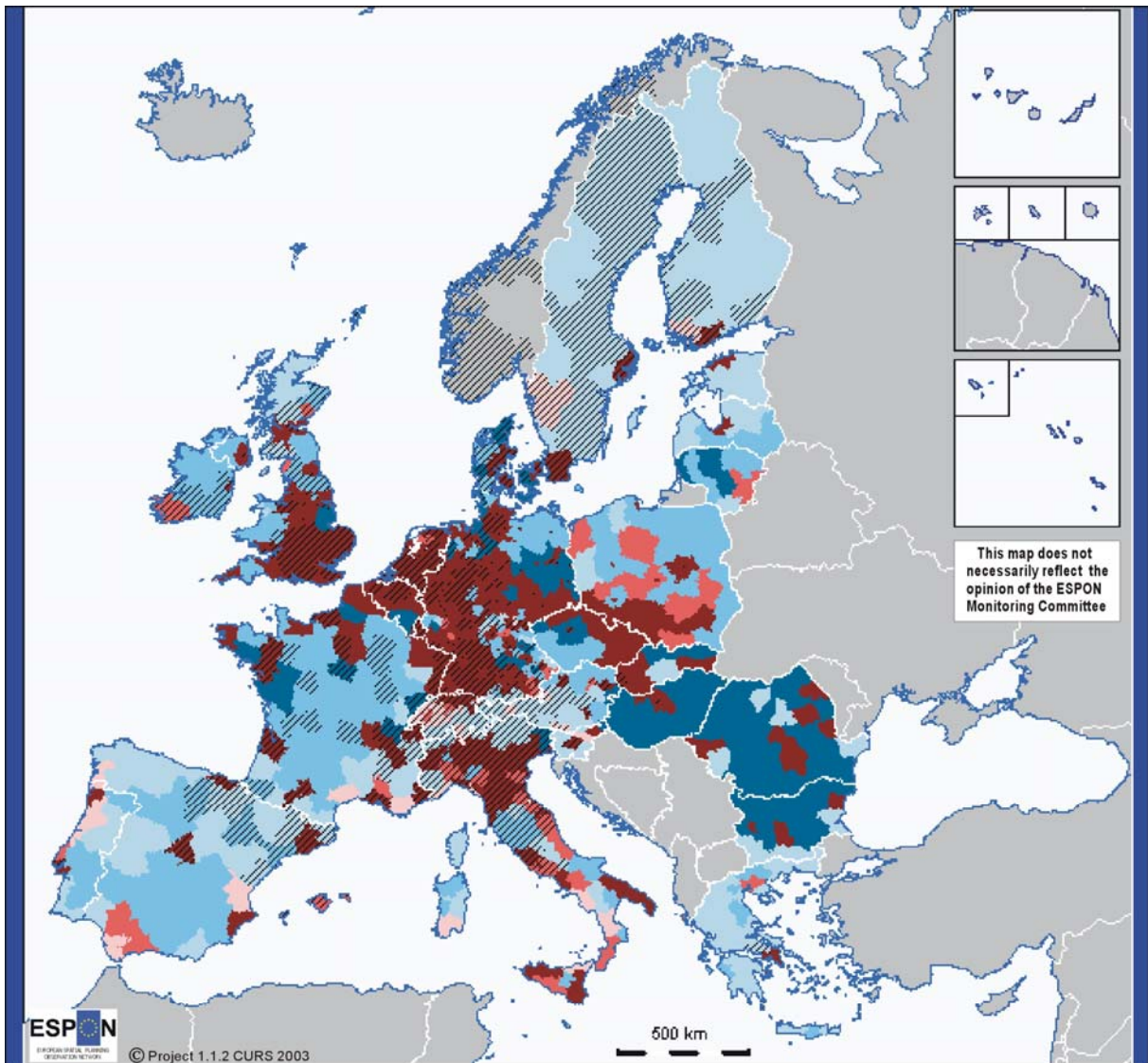© EuroGeographics Association for the administrative boundaries

Ranking of Functional Urban Areas (FUAs):
Origin of data: EUROSTAT, National Statistical
Offices, National experts
Source: Nordregio, ESPON Data Base

Population density and GDP$_{PPS}$ per capita::
Origin of data: EU15 and CC's: Eurostat
Norway and Switzerland:
National Statistical Offices
Time reference:1999

Land cover types:
Origin of data: EEA, Corine Land Cover 90

Source: ESPON Data Base

Urban-rural typology, based on land use, population density and FUA -ranking

- ■ High urban influence, high human intervention
- ■ High urban influence, medium human intervention
- ■ High urban influence, low human intervention
- ■ Low urban influence, high human intervention
- ■ Low urban influence, medium human intervention
- ■ Low urban influence, low human intervention

GDP$_{PPS}$ per capita (EU25+4 average is 18 607 euros/capita)

⟋	18 608	-	94 324	(601 NUTS3 regions)
□	2 310	-	18 607	(709)

The criteria for urban influence:
- Population density above the average (107 inhabitants/km^2 in EU25+4)
- And/or at least a european level functional urban area (based on ranking made by ESPON Action 1.1.1)

Degree of human intervention is estimated through the average shares of land use (in EU23+3, no data on Cyprus, Malta and Norway):
High human intervention: at least the share of artificial surfaces above average (3,48%)
Medium human intervention: at least the share of agricultural land above average (50,36%)
Low human intervention: only the share of residual land use above average (46,16%)

Map 3.26. GDP$_{PPS}$ per capita in relation to urban–rural typology.
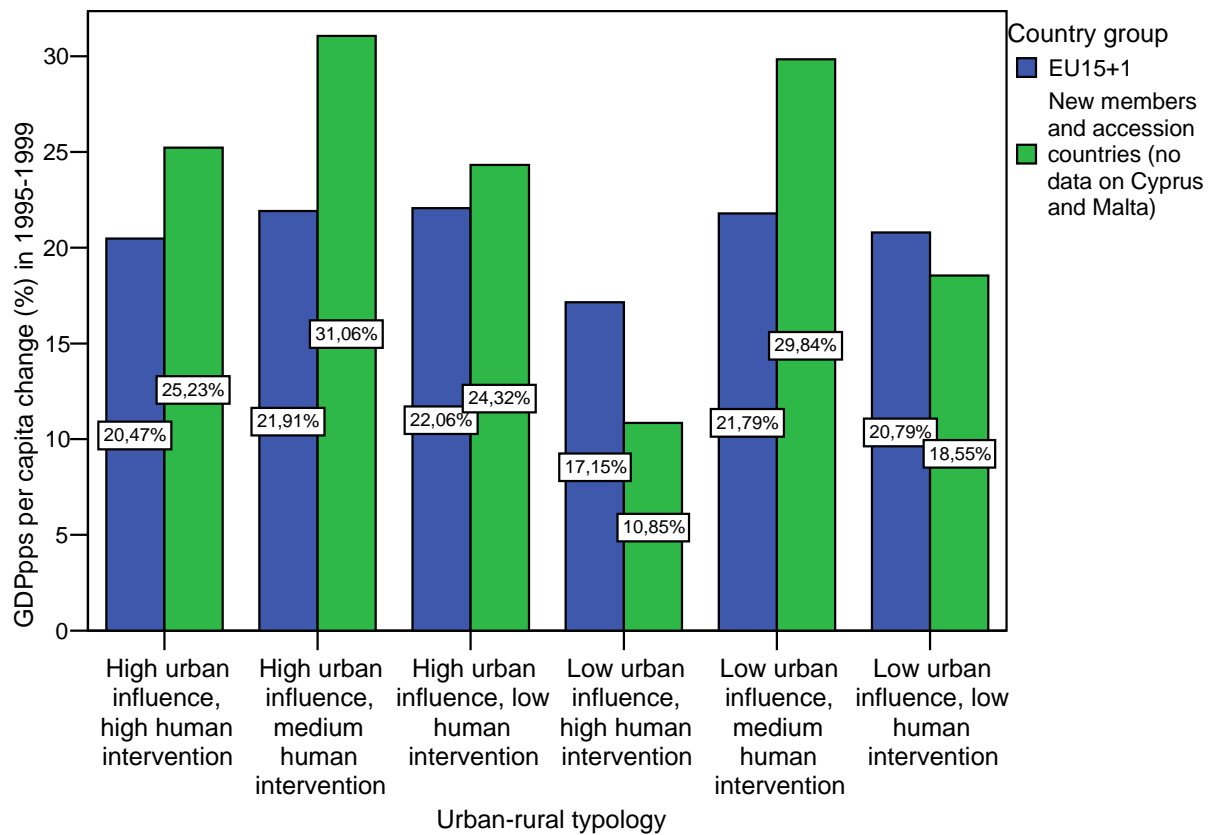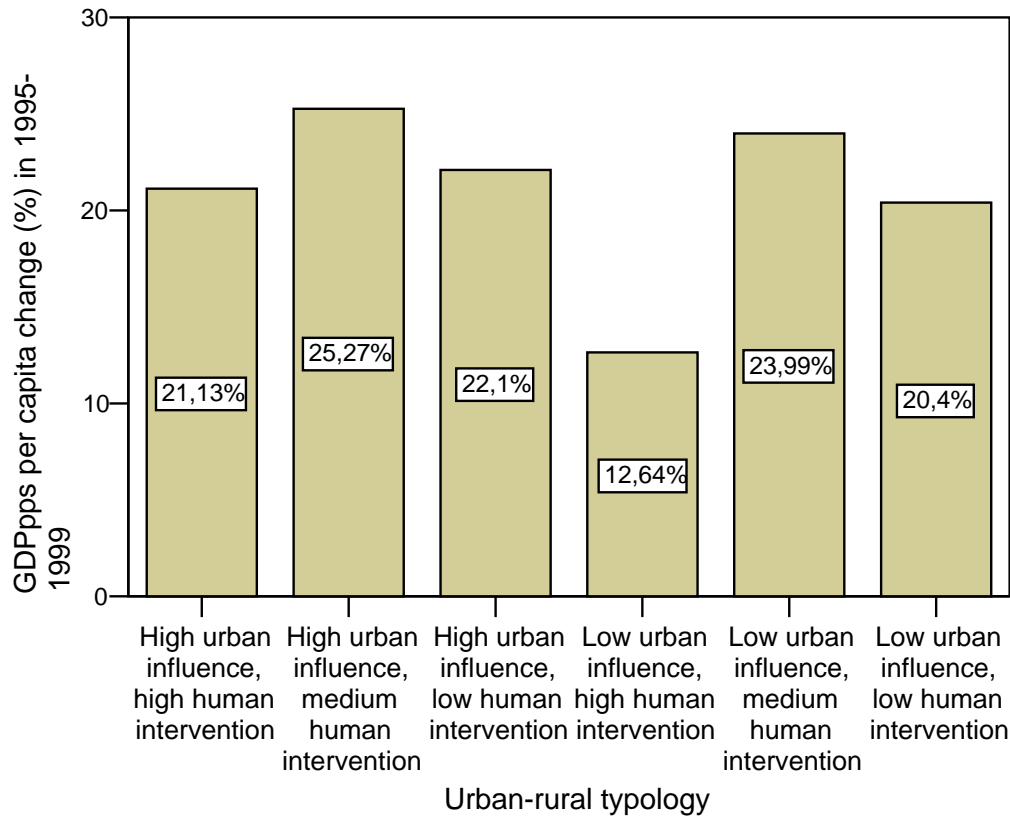
Graph 3.36. Change of GDP$_{PPS}$ from 1995 to 1999 in relation to urban–rural typology.
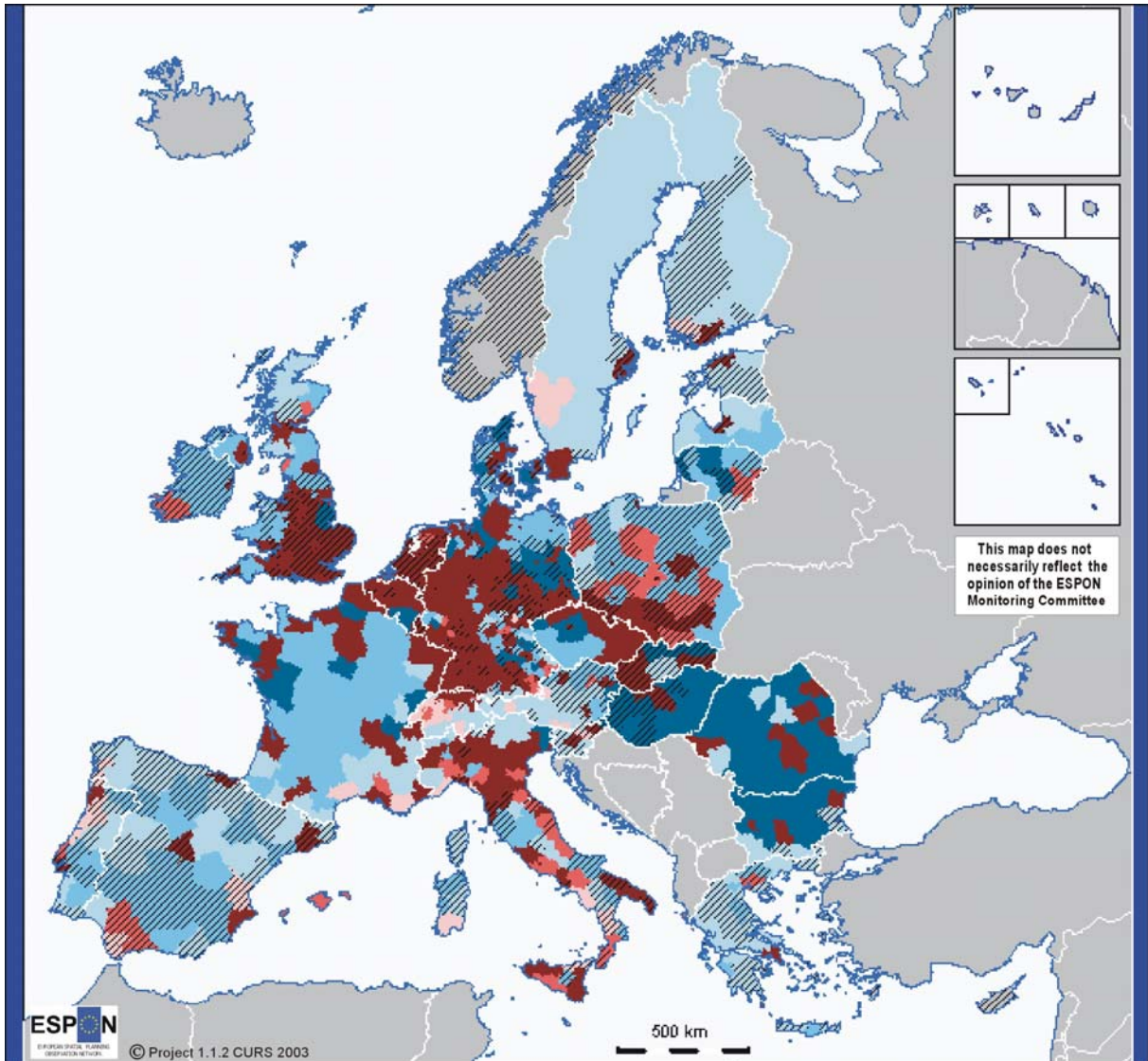
Urban-rural typology, based on population
density, FUA -ranking and land cover

■ High urban influence, high human intervention
■ High urban influence, medium human intervention
■ High urban influence, low human intervention
■ Low urban influence, high human intervention
■ Low urban influence, medium human intervention
□ Low urban influence, low human intervention

Change of GDP$_{PPS}$/capita (%) from 1995 to1999 (EU25+4 average is 21%)

▨ 22 - 76 %   (479 NUTS3 regions)
□ -23 - 21   (842)

The criteria for urban influence:
- Population density above the average (107 inhabitants/km^2 in EU25+4)
- And/or at least a european level functional urban area (based on ranking made by ESPON
Action 1.1.1)

Degree of human intervention is estimated through the average shares of land use
(in EU23+3, no data on Cyprus, Malta and Norway):
High human intervention: at least the share of artificial surfaces above average (3,48%)
Medium human intervention: at least the share of agricultural land above average (50,36%)
Low human intervention: only the share of residual land use above average (46,16%)

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Ranking of Functional Urban Areas (FUAs):
Origin of data: EUROSTAT, National Statistical
Offices, National experts
Source: Nordregio, ESPON Data Base

Population density and change of GDP$_{PPS}$ per capita:
Origin of data: EU15 and CC's: Eurostat
Norway and Switzerland:
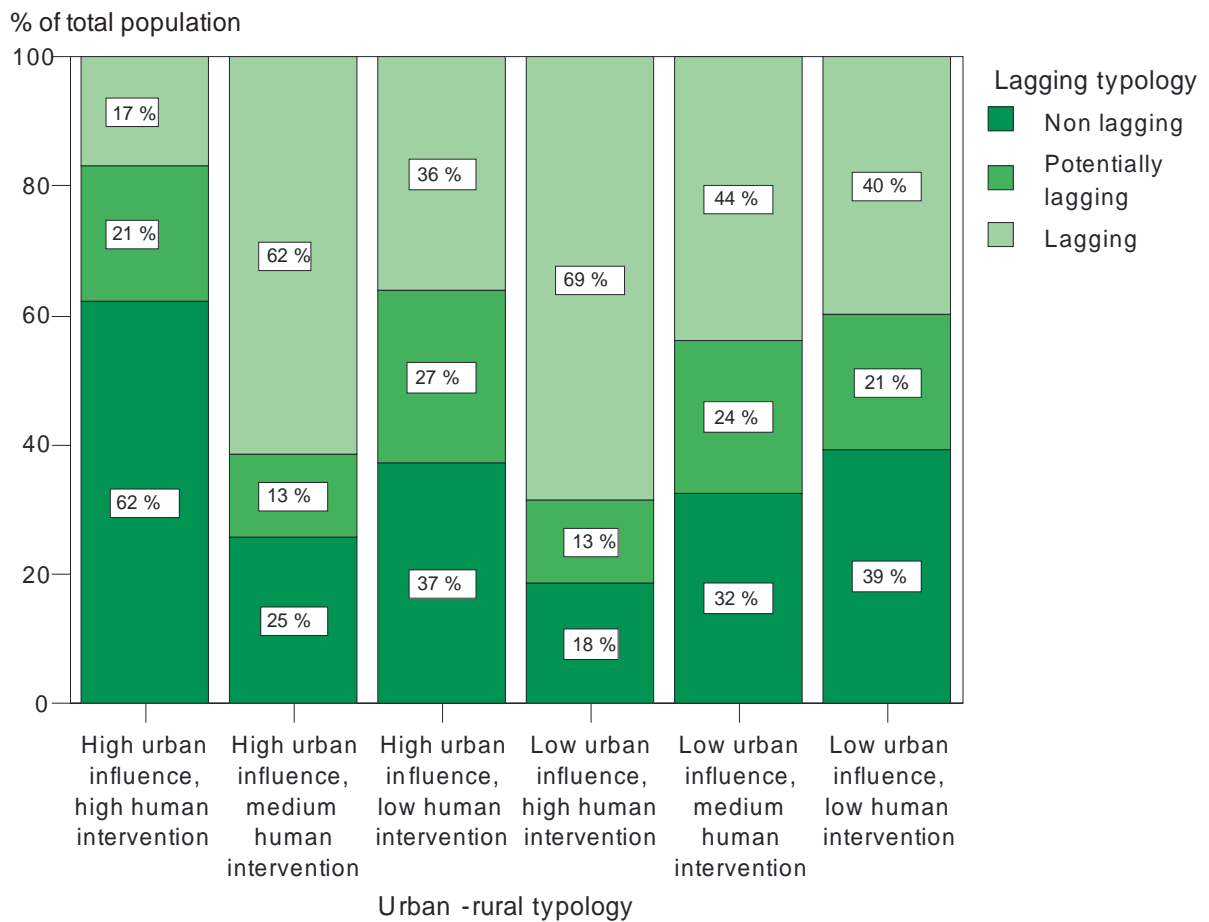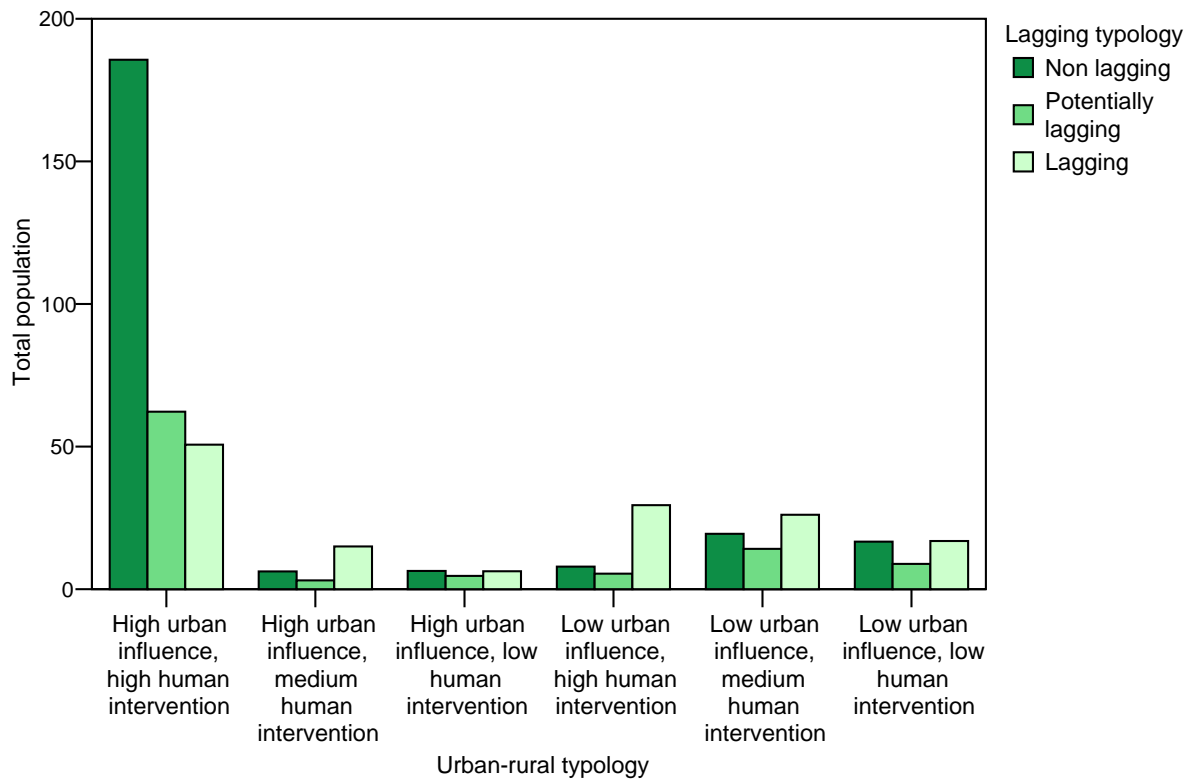National Statistical Offices
Time reference:1999

Land cover types:
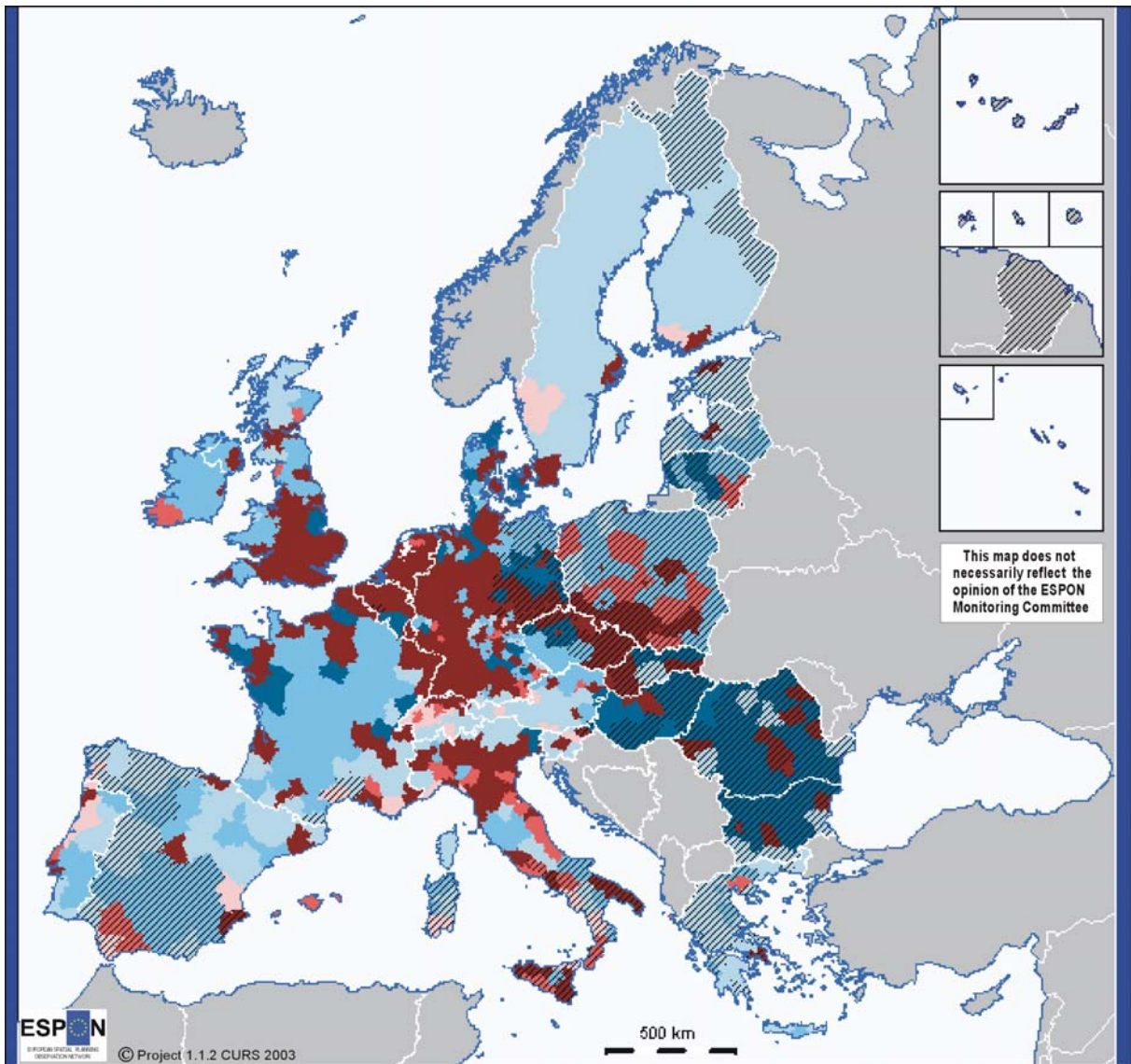Origin of data: EEA, Corine Land Cover 90

Source: ESPON Data Base

Map 3.27. Change of GDP$_{PPS}$ from 1995 to 1999 in relation to urban–rural typology.

			Lagging typology			
			Non lagging	Potentially lagging	Lagging	Total
Urban-rural typology	High urban influence, high human intervention	% of population within Urban-rural typology	62%	21%	17%	100%
		% of population within Lagging typology	75%	63%	34%	60%
	High urban influence, medium human intervention	% of population within Urban-rural typology	25%	13%	62%	100%
		% of population within Lagging typology	2%	3%	10%	5%
	High urban influence, low human intervention	% of population within Urban-rural typology	37%	27%	36%	100%
		% of population within Lagging typology	3%	5%	4%	3%
	Low urban influence, high human intervention	% of population within Urban-rural typology	18%	13%	69%	100%
		% of population within Lagging typology	3%	6%	20%	9%
	Low urban influence, medium human intervention	% of population within Urban-rural typology	32%	24%	44%	100%
		% of population within Lagging typology	8%	14%	18%	12%
	Low urban influence, low human intervention	% of population within Urban-rural typology	39%	21%	40%	100%
		% of population within Lagging typology	7%	9%	11%	9%
	Areas not in urban–rural typology	% of population within Urban-rural typology	55%	11%	34%	100%
		% of population within Lagging typology	2%	1%	3%	2%
Total		% of population within Urban-rural typology	50%	20%	30%	100%
		% of population within Lagging typology	100%	100%	100%	100%

Table 3.7. Lagging typology (from ESPON Action 2.1.1.) in relation to urban–rural typology.

Graph 3.37. Lagging typology (from ESPON Action 2.1.1.) in relation to urban–rural typology.

This map does not
necessarily reflect the
opinion of the ESPON
Monitoring Committee

500 km

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**Urban-rural typology, based on land use,
population density and FUA -ranking**

- High urban influence, high human intervention
- High urban influence, medium human intervention
- High urban influence, low human intervention
- Low urban influence, high human intervention
- Low urban influence, medium human intervention
- Low urban influence, low human intervention

Typology of lagging regions by project 2.1.1
Based on GDP per capita and unempolyment rate

Lagging regions	(343 NUTS3 regions)	
Potentially lagging or non lagging regions	(256 and 730 NUTS3 regions)	

The criteria for urban influence:
- Population density above the average (107 inhabitants/km^2 in EU25+4)
- And/or at least a european level functional urban area (based on ranking made by ESPON Action 1.1.1)

Degree of human intervention is estimated through the average shares of land use
 (in EU23+3, no data on Cyprus, Malta and Norway):
High human intervention: at least the share of artificial surfaces above average (3,48%)
Medium human intervention: at least the share of agricultural land above average (50,36%)
Low human intervention: only the share of residual land use above average (46,16%)

Ranking of Functional Urban Areas (FUAs):
Origin of data: EUROSTAT, National Statistical
Offices, National experts
Source: Nordregio, ESPON Data Base

Population density, GDP per capita and
unemployment rate:
Origin of data: EU15 and CC's: Eurostat
Norway and Switzerland:
National Statistical Offices
Time reference:1999

Land cover types:
Origin of data: EEA, Corine Land Cover 90

Source: ESPON Data Base

**Map 3.28. Lagging typology (from ESPON Action 2.1.1.) in relation to urban–
rural typology.**

Graph 3.38. Accessibility to transportation terminals in relation to urban–rural typology.
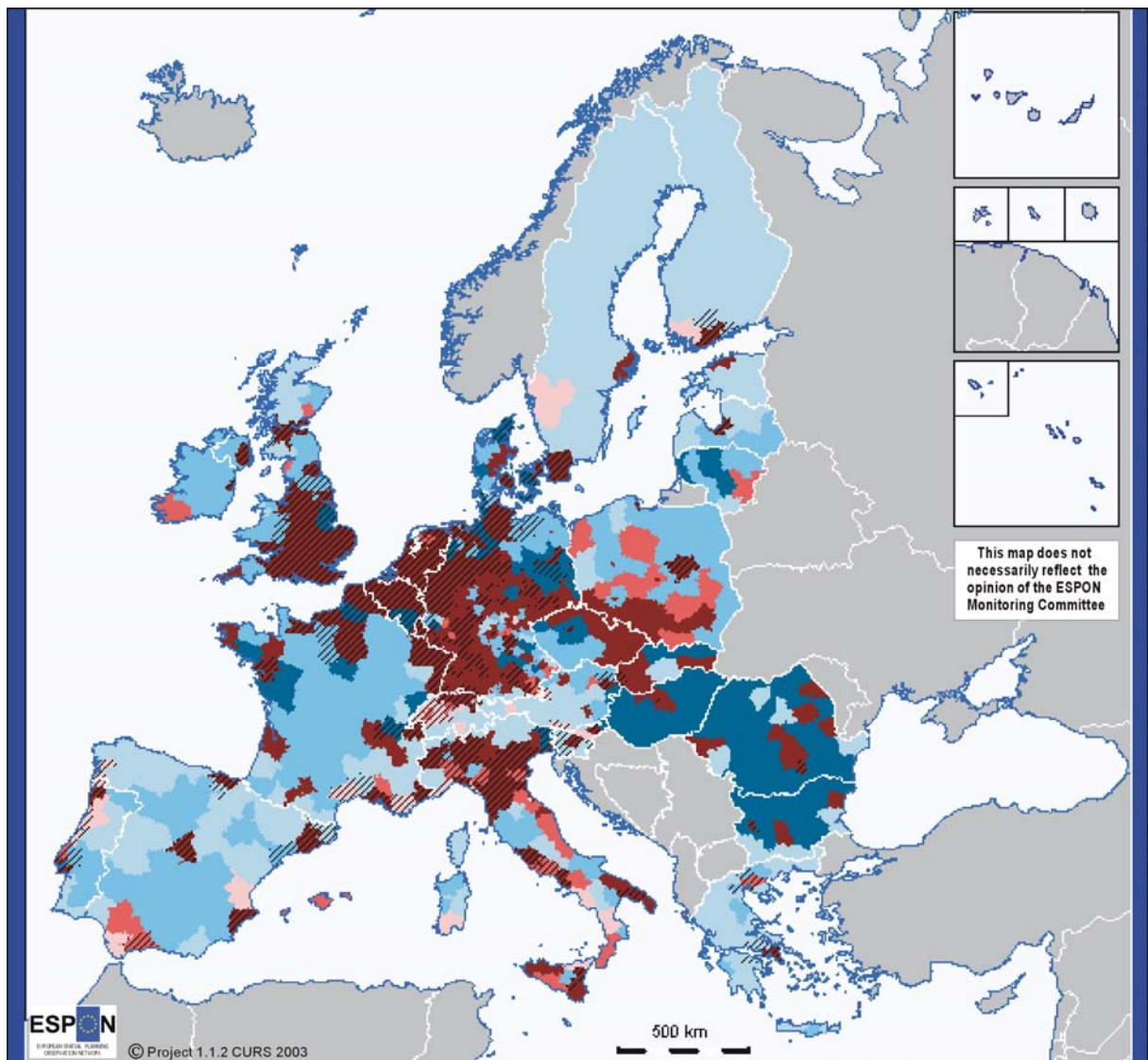
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Urban-rural typology, based on population density, FUA ranking and land cover

- High urban influence, high human intervention
- High urban influence, medium human intervention
- High urban influence, low human intervention
- Low urban influence, high human intervention
- Low urban influence, medium human intervention
- Low urban influence, low human intervention

Accessibility to transportation terminals (EU25+4 average is 44 minutes)

7 - 43   (601 NUTS3 regions)
44 - 150 (709)

The criteria for urban influence:
- Population density above the average (107 inhabitants/km² in EU25+4)
- And/or at least a european level functional urban area (based on ranking made by ESPON Action 1.1.1)

Degree of human intervention is estimated through the average shares of land use (in EU23+3, no data on Cyprus, Malta and Norway):
High human intervention: at least the share of artificial surfaces above average (3,48%)
Medium human intervention: at least the share of agricultural land above average (50,36%)
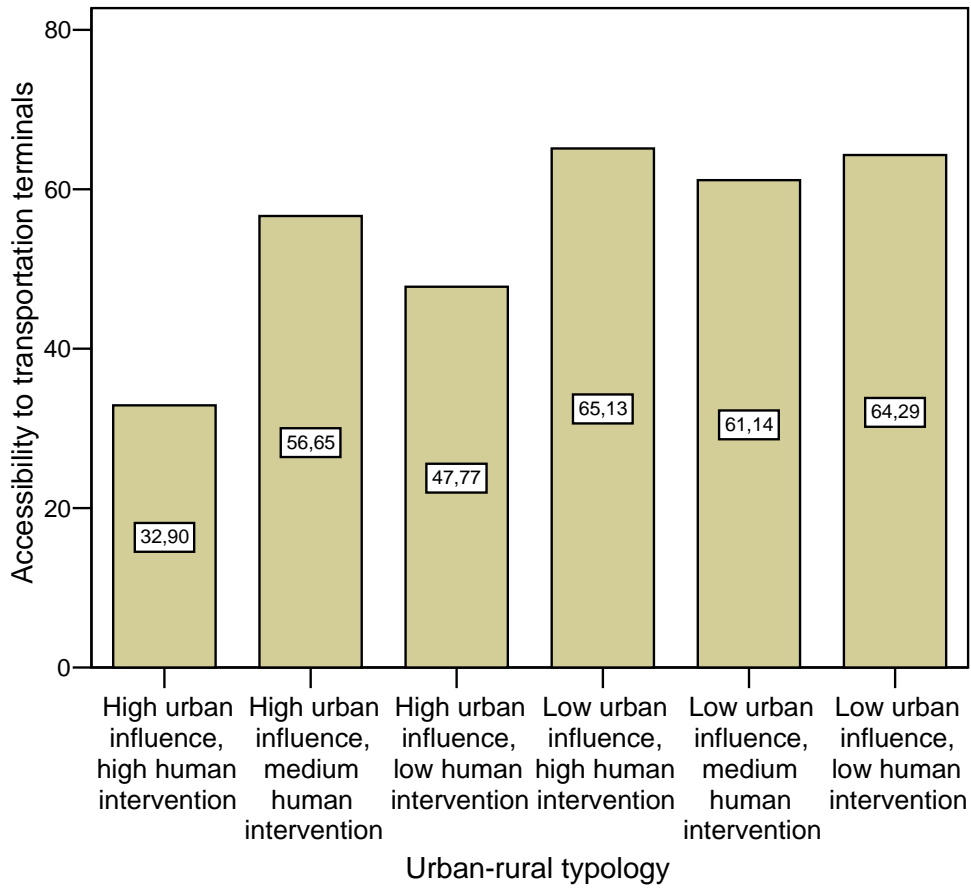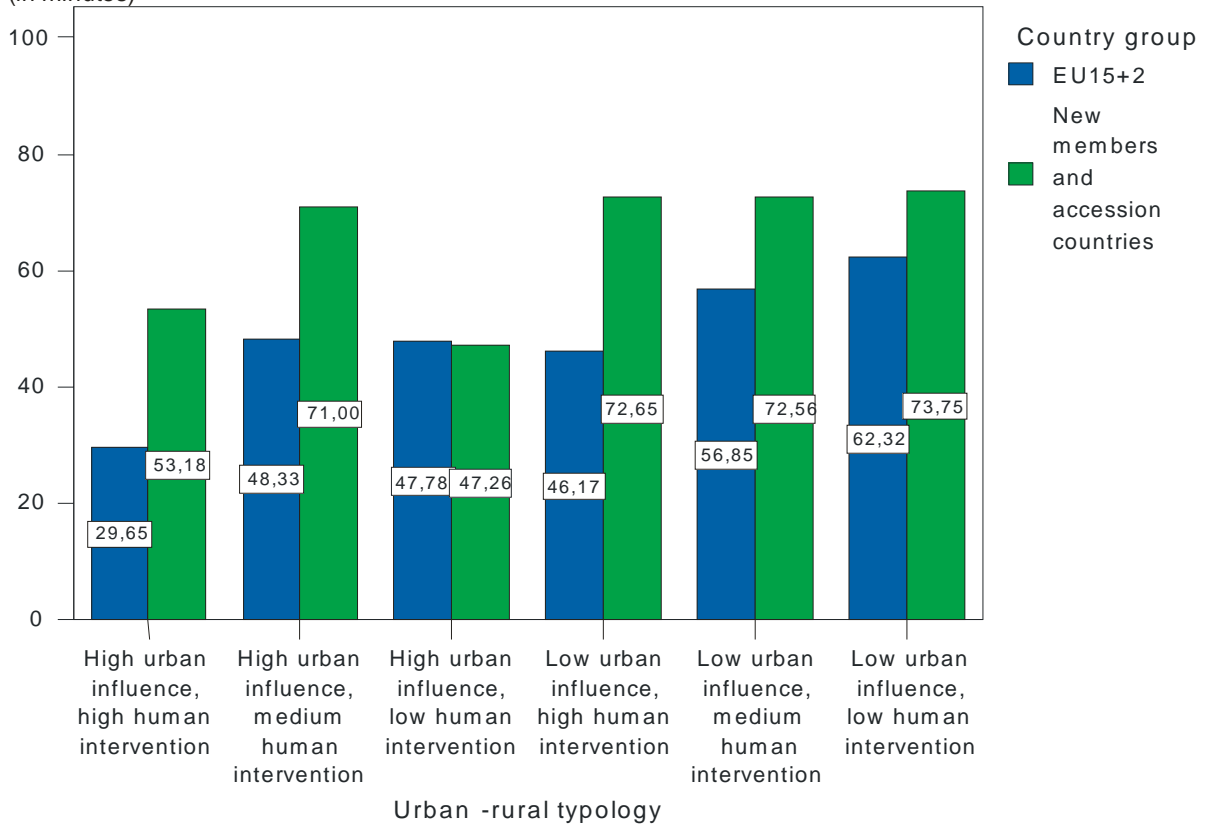Low human intervention: only the share of residual land use above average (46,16%)

Ranking of Functional Urban Areas (FUAs):
Origin of data: EUROSTAT, National Statistical Offices, National experts
Source: Nordregio, ESPON Data Base

Population density:
Origin of data: EU15 and CC's: Eurostat
Norway and Switzerland: National Statistical Offices
Time reference:1999

Land cover types:
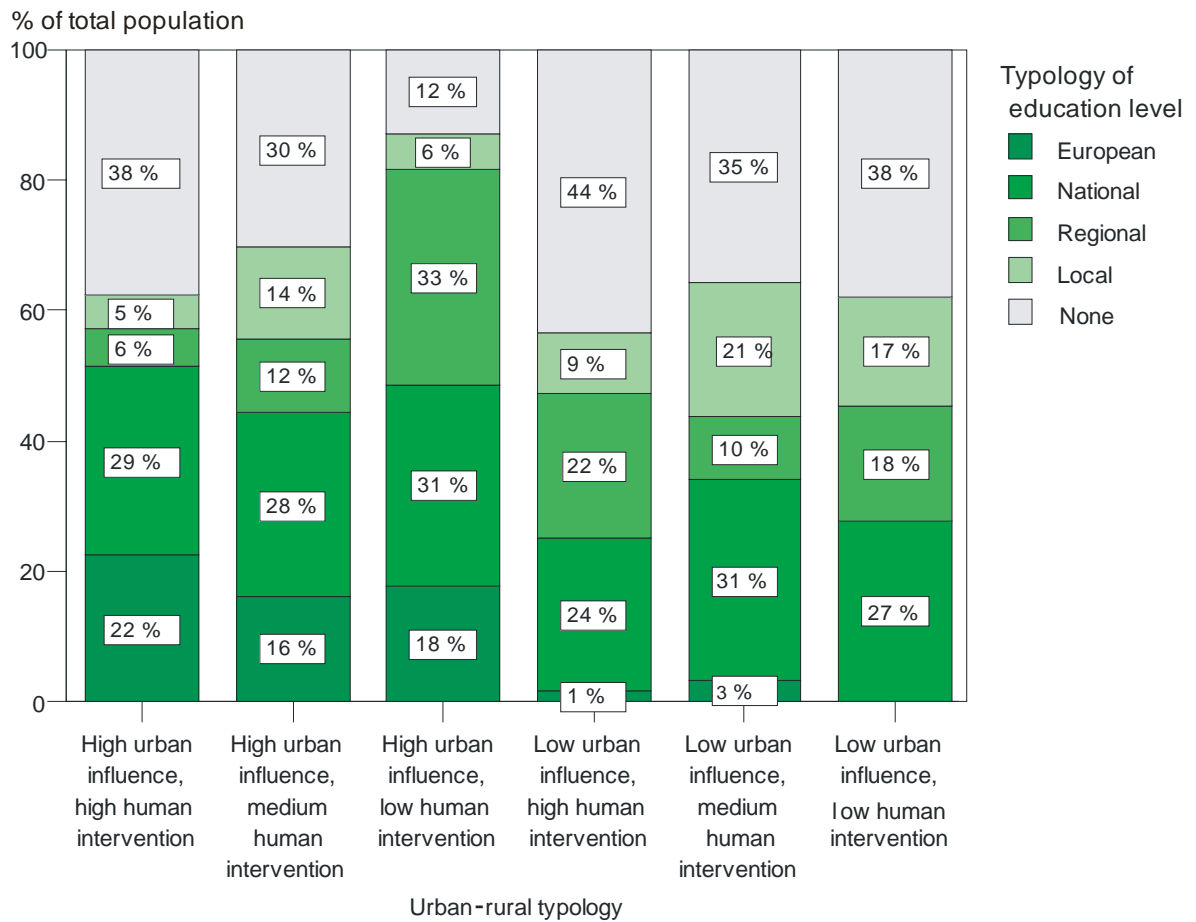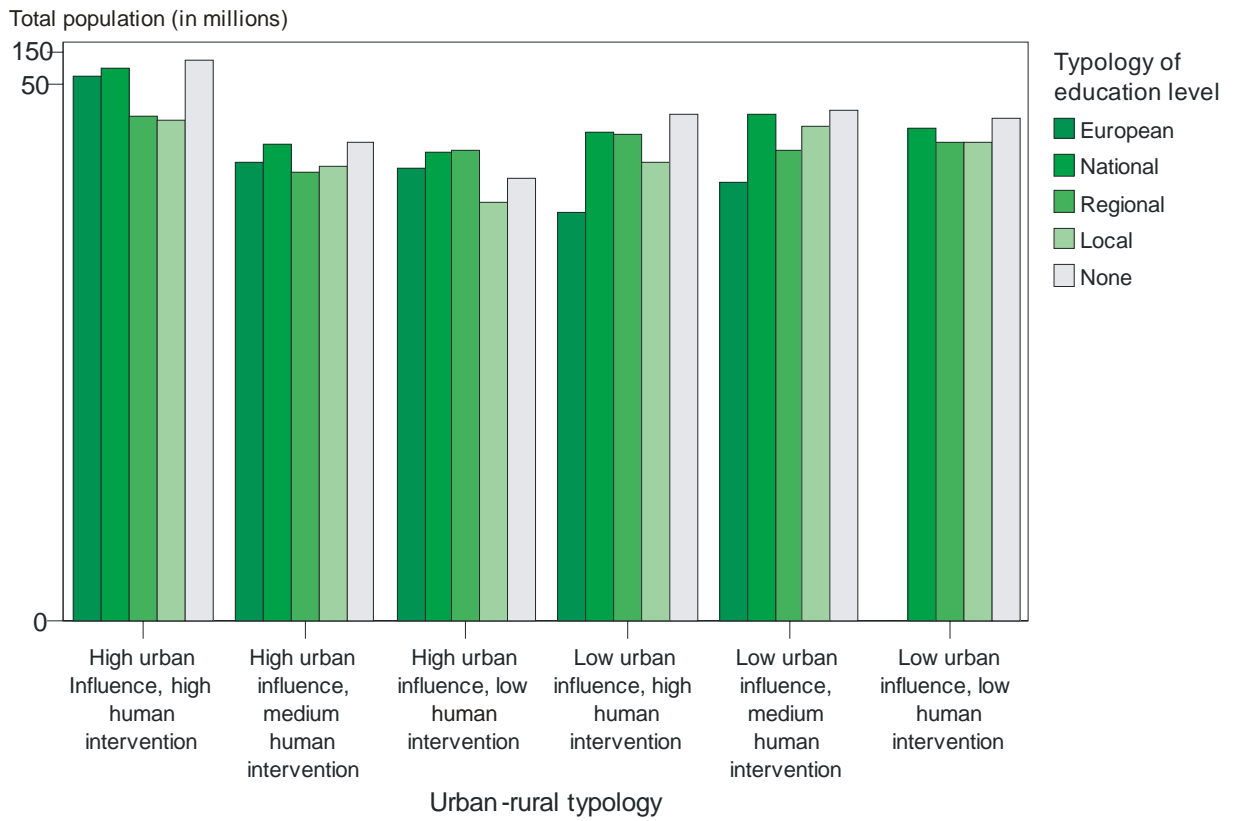Origin of data: EEA, Corine Land Cover 90

Accessibility:
Origin of data: ASSEMBLING graph, European Comission
Time reference: 2001

Source: ESPON Data Base

Map 3.29. Accessibility to transportation terminals in relation to urban–rural typology.

|			Typology of education level					
			None	Local	Regional	National	European	Total
Urban-rural typology	High urban influence, high human intervention	% of population within Urban-rural typology	38%	5%	6%	29%	22%	100%
		% of population within Typology of education level	62%	33%	36%	61%	87%	60%
	High urban influence, medium human intervention	% of population within Urban-rural typology	30%	14%	12%	28%	16%	100%
		% of population within Typology of education level	4%	7%	6%	5%	5%	5%
	High urban influence, low human intervention	% of population within Urban-rural typology	12%	6%	33%	31%	18%	100%
		% of population within Typology of education level	1%	2%	11%	4%	4%	4%
	Low urban influence, high human intervention	% of population within Urban-rural typology	44%	9%	22%	24%	1%	100%
		% of population within Typology of education level	10%	8%	19%	7%	1%	9%
	Low urban influence, medium human intervention	% of population within Urban-rural typology	35%	21%	10%	31%	3%	100%
		% of population within Typology of education level	12%	27%	12%	13%	3%	12%
	Low urban influence, low human intervention	% of population within Urban-rural typology	38%	17%	18%	27%	0%	100%
		% of population within Typology of education level	9%	15%	15%	8%	0%	8%
	Areas not in urban–rural typology	% of population within Urban-rural typology	30%	37%	4%	29%	0%	100%
		% of population within Typology of education level	2%	8%	1%	2%	0%	2%
Total		% of population within Urban-rural typology	37%	9%	10%	29%	15%	100%
		% of population within Typology of education level	100%	100%	100%	100%	100%	100%

Table 3.8. Level of education (from ESPON Action 1.1.1.) in relation to urban–rural typology.

Total population (in millions)

150

50

0

Typology of
education level
■ European
■ National
■ Regional
□ Local
□ None

High urban
Influence, high
human
intervention

High urban
influence,
medium
human
intervention

High urban
influence, low
human
intervention

Low urban
influence, high
human
intervention

Low urban
influence,
medium
human
intervention

Low urban
influence, low
human
intervention

Urban-rural typology

% of total population

100

80

60

40

20

0

Typology of
education level
■ European
■ National
■ Regional
□ Local
□ None

High urban
influence,
high human
intervention

High urban
influence,
medium
human
intervention

High urban
influence,
low human
intervention

Low urban
influence,
high human
intervention

Low urban
influence,
medium
human
intervention

Low urban
influence,
low human
intervention

Urban-rural typology

**Graph 3.39. Level of education (from ESPON Action 1.1.1.) in relation to urban–
rural typology.**

|			Typology of tourism level						
			None	Local	Regional	National	European	Global	Total
Urban-rural typology	High urban influence, high human intervention	% of population within Urban-rural typology	21%	22%	25%	20%	9%	3%	100%
		% of population within Typology of tourism level	70%	49%	57%	65%	73%	91%	60%
	High urban influence, medium human intervention	% of population within Urban-rural typology	11%	37%	30%	13%	6%	3%	100%
		% of population within Typology of tourism level	3%	7%	6%	3%	4%	9%	5%
	High urban influence, low human intervention	% of population within Urban-rural typology	14%	13%	3%	65%	5%	0%	100%
		% of population within Typology of tourism level	3%	2%	1%	13%	2%	0%	3%
	Low urban influence, high human intervention	% of population within Urban-rural typology	12%	52%	31%	3%	2%	0%	100%
		% of population within Typology of tourism level	5%	15%	10%	2%	2%	0%	9%
	Low urban influence, medium human intervention	% of population within Urban-rural typology	16%	38%	30%	14%	2%	0%	100%
		% of population within Typology of tourism level	10%	17%	13%	10%	3%	0%	12%
	Low urban influence, low human intervention	% of population within Urban-rural typology	13%	30%	36%	15%	6%	0%	100%
		% of population within Typology of tourism level	6%	9%	11%	7%	8%	0%	9%
	Areas not in urban–rural typology	% of population within Urban-rural typology	27%	11%	25%	8%	29%	0%	100%
		% of population within Typology of tourism level	3%	1%	2%	1%	8%	0%	2%
Total		% of population within Urban-rural typology	18%	28%	27%	18%	7%	2%	100%
		% of population within Typology of tourism level	100%	100%	100%	100%	100%	100%	100%

Table 3.9. Level of tourism (from ESPON Action 1.1.1.) in relation to urban–rural typology.
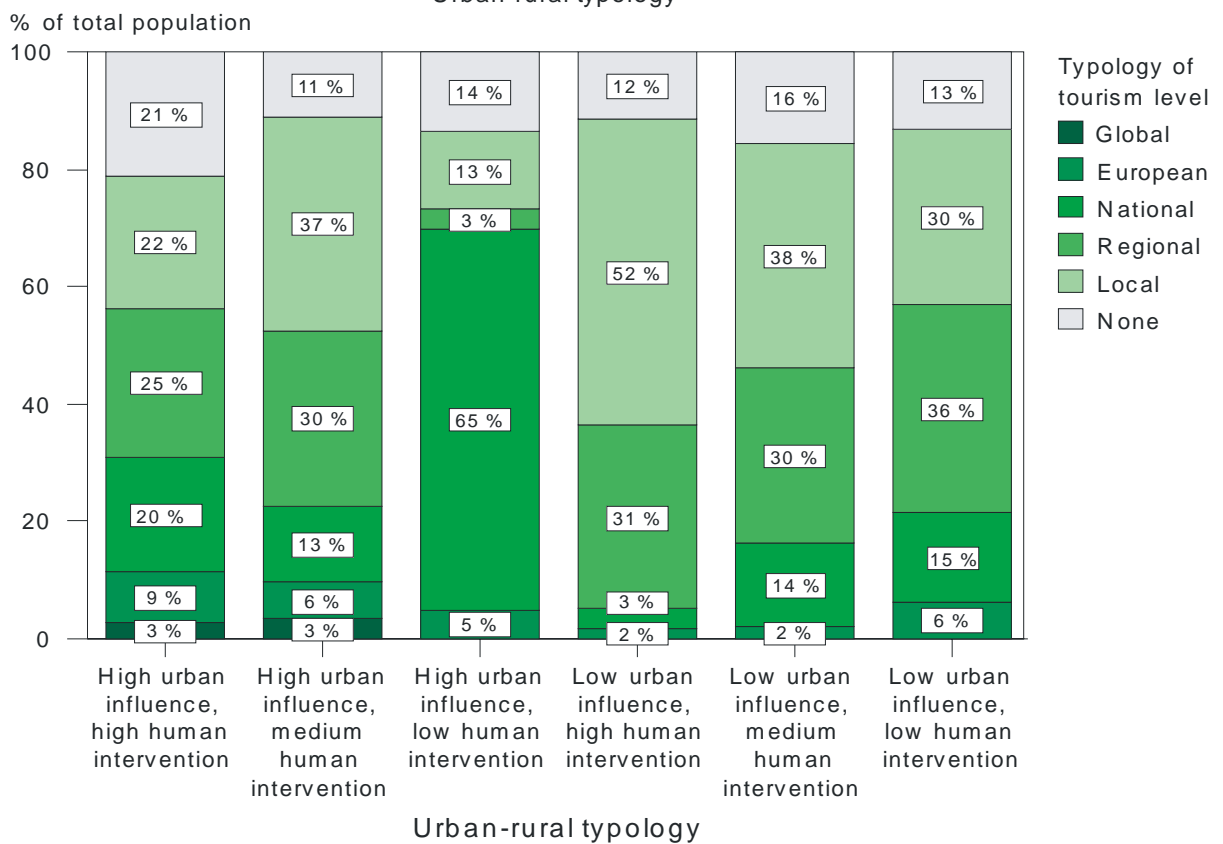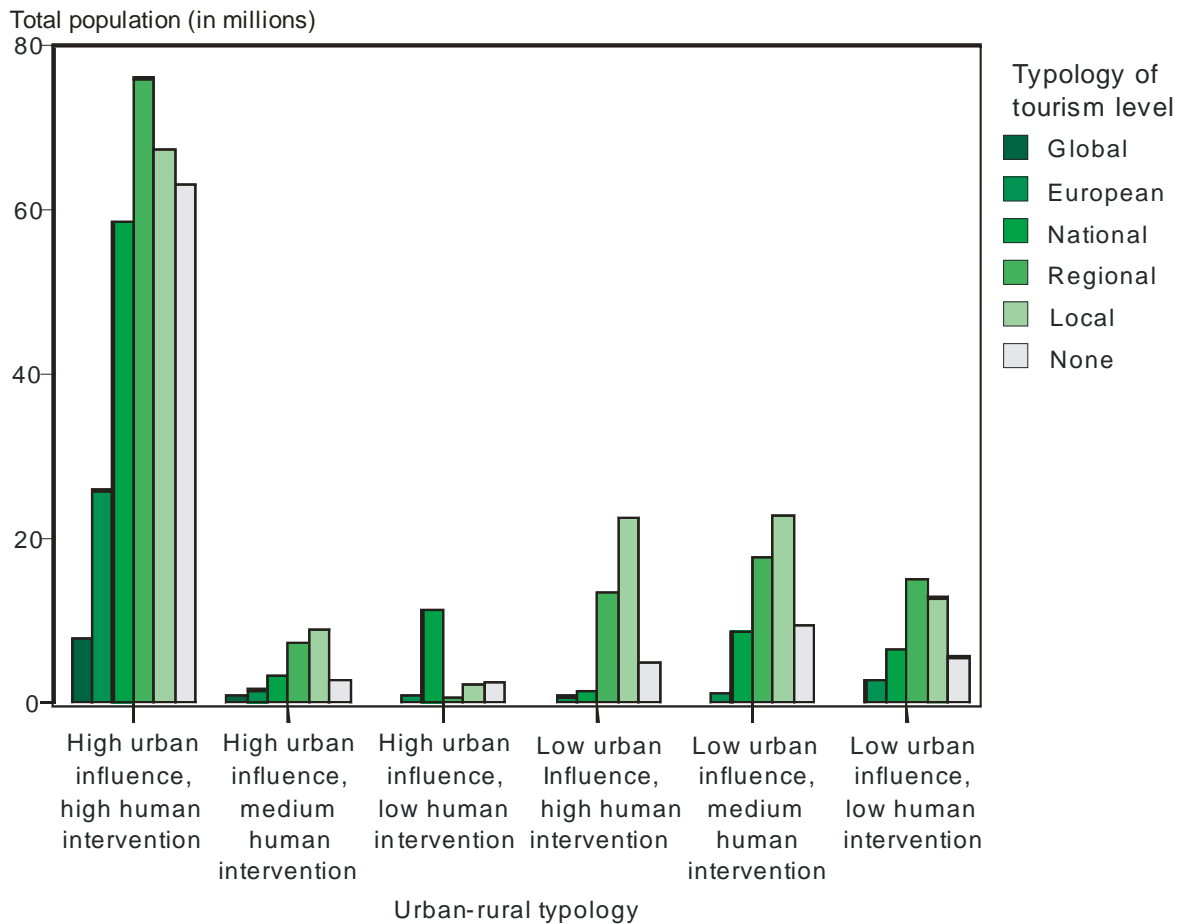
Graph 3.40. Level of tourism (from ESPON Action 1.1.1.) in relation to urban–rural typology.
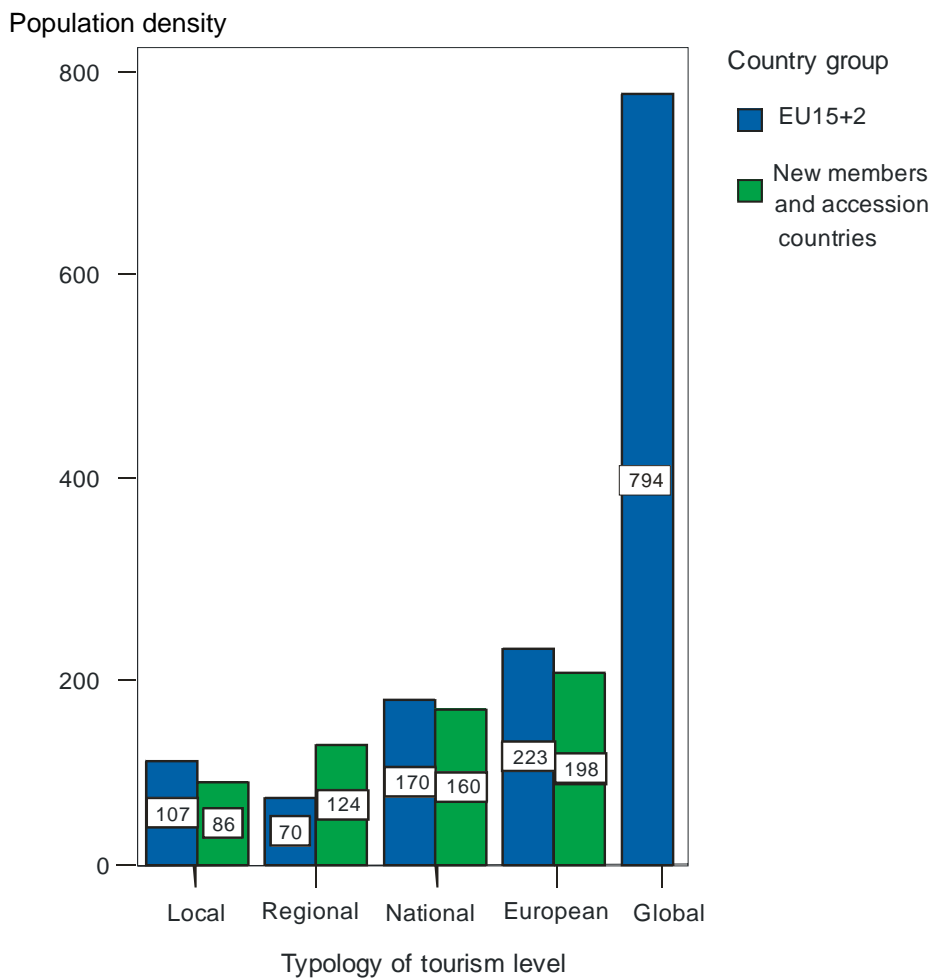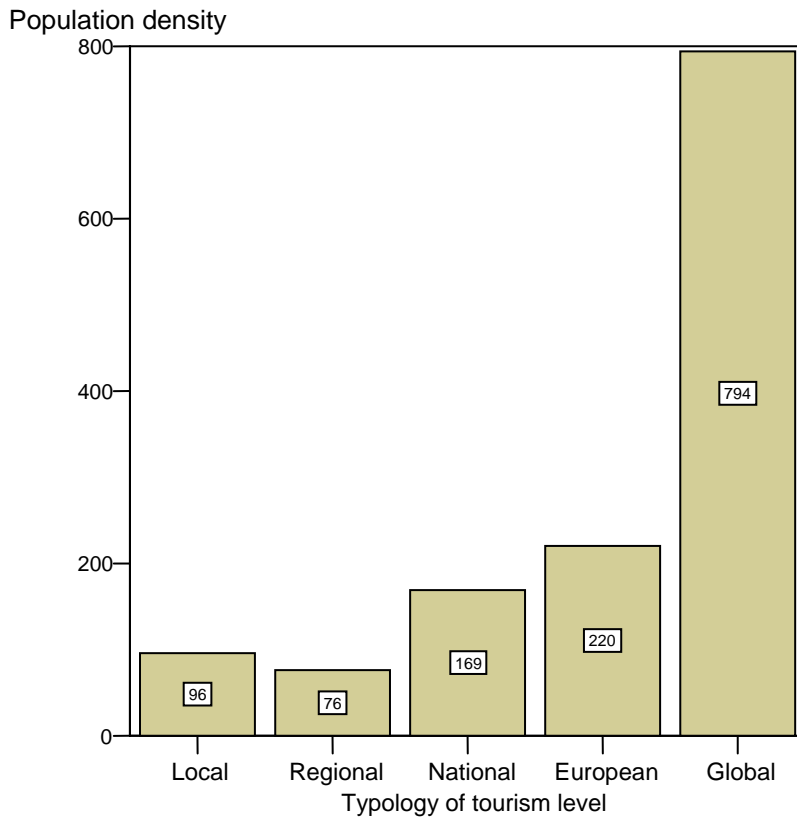
Graph 3.41. Level of tourism (from ESPON Action 1.1.1.) in relation to population density.
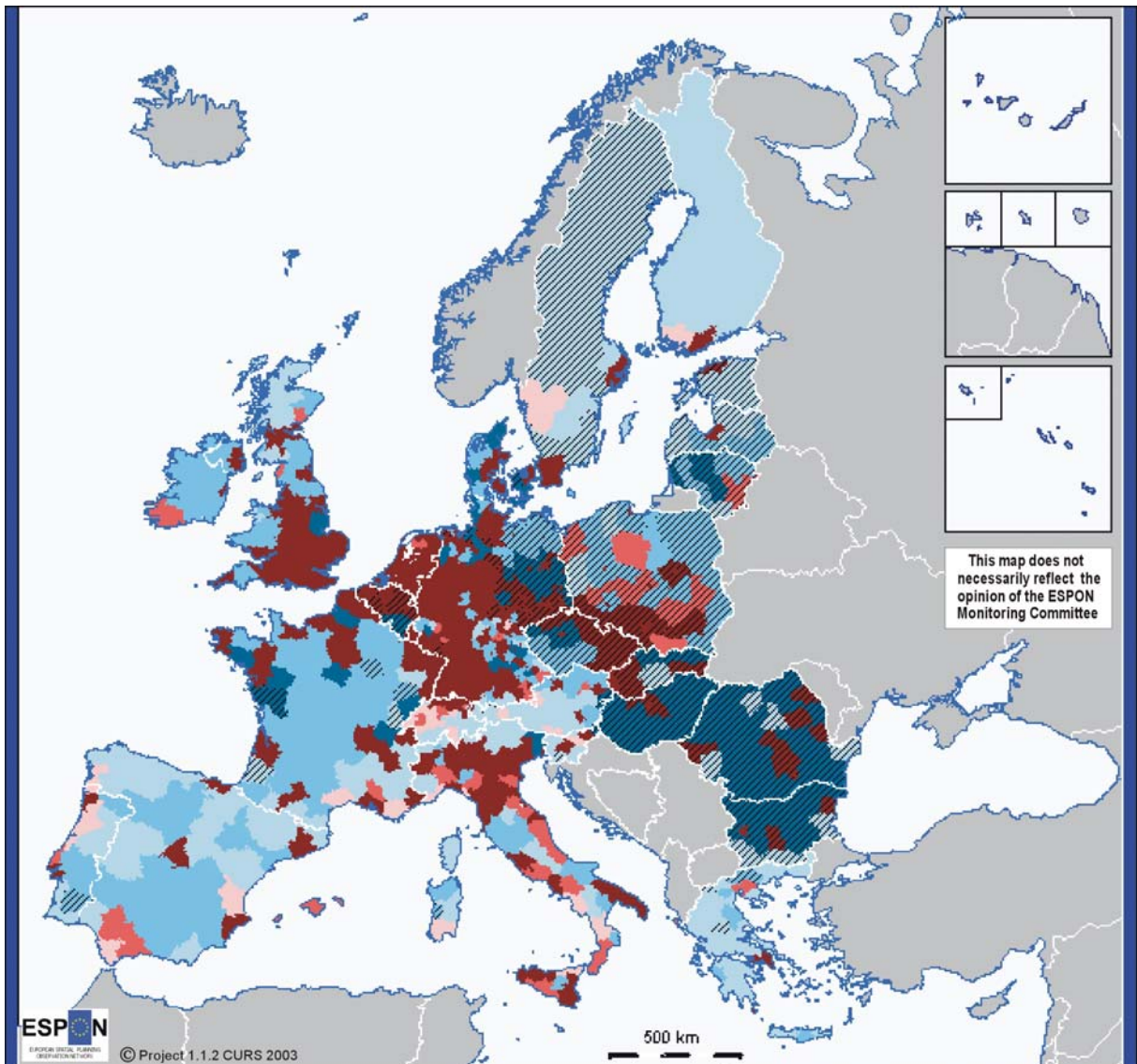
500 km

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**Urban-rural typology, based on population
density, FUA ranking and land cover**

- ■ High urban influence, high human intervention
- ■ High urban influence, medium human intervention
- ■ High urban influence, low human intervention
- ■ Low urban influence, high human intervention
- ■ Low urban influence, medium human intervention
- ■ Low urban influence, low human intervention

**Land use sustainability (artificial surfaces per 100 million
euros of GDP$_{PPS}$, EU 25+3 average = 2,8 km^2 / 100 million euros)**

- ▨ 2,8 - 28,7 (300 NUTS3 regions)
- □ 0 - 2,7 (991)

The criteria for urban influence:
- Population density above the average (107 inhabitants/km^2 in EU25+4)
- And/or at least a European level functional urban area (based on typology made by ESPON
  Action 1.1.1)

Degree of human intervention is estimated through the average shares of land covers
(in EU23+3, no data on Cyprus, Malta and Norway):
High human intervention: at least the share of artificial surfaces above average (3,48%)
Medium human intervention: at least the share of agricultural land above average (50,36%)
Low human intervention: only the share of residual land use above average (46,16%)

Ranking of Functional Urban Areas (FUAs):
Origin of data: EUROSTAT, National Statistical
Offices, National experts
Source: Nordregio, ESPON Data Base

Population density and GDP$_{PPS}$:
Origin of data: EU15 and CC's: Eurostat
Norway and Switzerland:
National Statistical Offices
Time reference:1999

Land cover types:
Origin of data: EEA, Corine Land Cover 90

Source: ESPON Data Base

**Map 3.30. Land use sustainability (artificial surfaces per GDP$_{PPS}$) in relation to
urban–rural typology.**
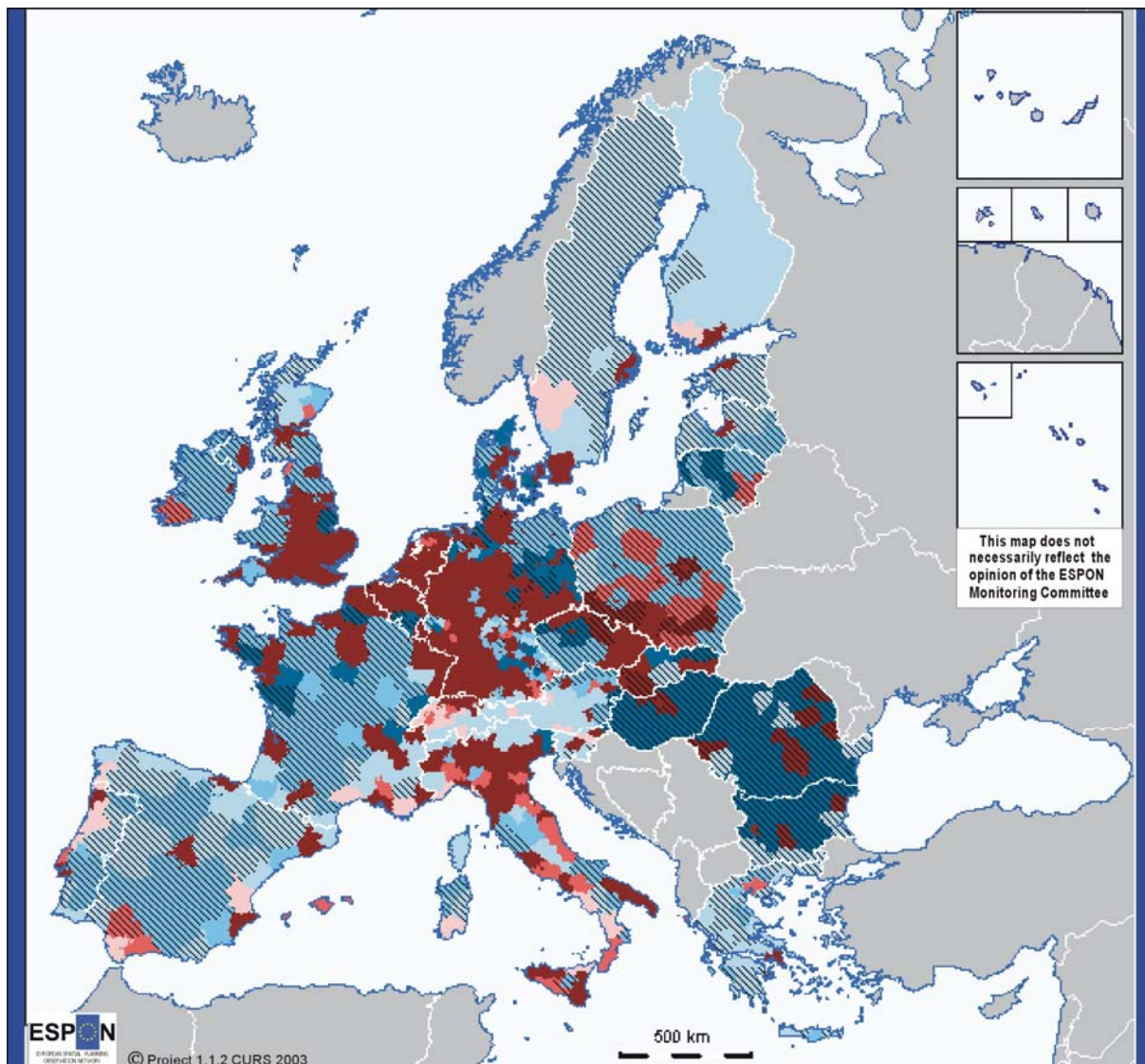
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**Urban-rural typology, based on population
density, FUA ranking and land cover**

- ■ High urban influence, high human intervention
- ■ High urban influence, medium human intervention
- ■ High urban influence, low human intervention
- ■ Low urban influence, high human intervention
- ■ Low urban influence, medium human intervention
- ■ Low urban influence, low human intervention

**Agricultural surface per GDP$_{PPS}$ (in 100 million euros),
EU 23+3 average = 46,6 km2 / 100 million euros (no data on Cyprus, Malta and Norway)**

- ▨ 46,7 - 896,79 (386)
- ▢ 0 - 46,6 (905)

The criteria for urban influence:
- Population density above the average (107 inhabitants/km² in EU25+4)
- And/or at least a European level functional urban area (based on typology made by ESPON
  Action 1.1.1)

Degree of human intervention is estimated through the average shares of land covers
(in EU23+3, no data on Cyprus, Malta and Norway):
High human intervention: at least the share of artificial surfaces above average (3,48%)
Medium human intervention: at least the share of agricultural land above average (50,36%)
Low human intervention: only the share of residual land use above average (46,16%)

Ranking of Functional Urban Areas (FUAs):
Origin of data: EUROSTAT, National Statistical
Offices, National experts
Source: Nordregio, ESPON Data Base

Population density and GDP$_{PPS}$:
Origin of data: EU15 and CC's: Eurostat
Norway and Switzerland:
National Statistical Offices
Time reference:1999

Land cover types:
Origin of data: EEA, Corine Land Cover 90

Source: ESPON Data Base

Map 3.31. Agricultural land use per GDP$_{PPS}$ in relation to urban–rural typology.
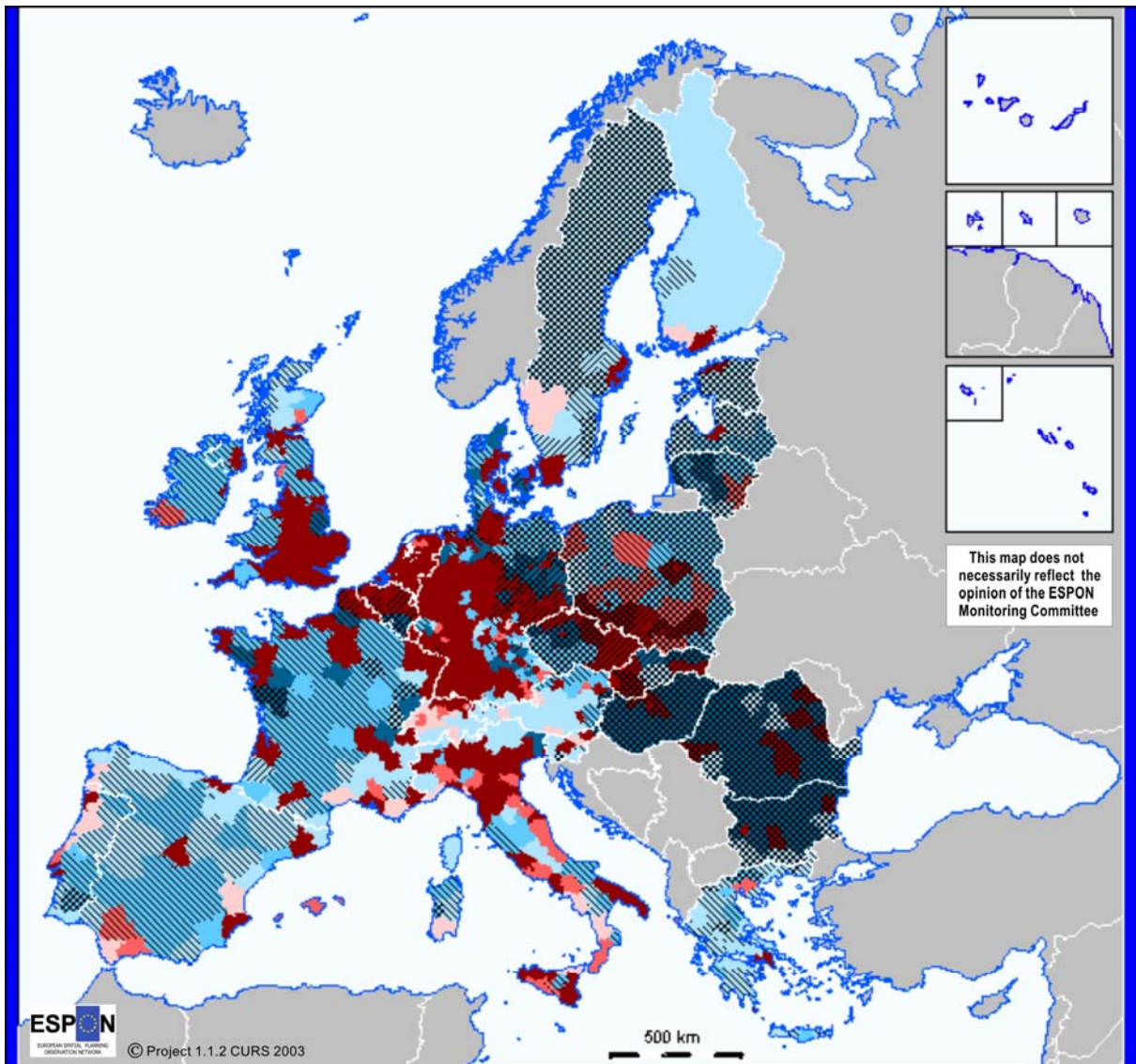
Urban-rural typology, based on
population density, FUA ranking and land cover

- ■ High urban influence, high human intervention
- ■ High urban influence, medium human intervention
- ■ High urban influence, low human intervention
- ■ Low urban influence, high human intervention
- ■ Low urban influence, medium human intervention
- ■ Low urban influence, low human intervention

Artificial surface / GDP$_{PPS}$ (in 100 mill. euros), EU 23+3 average = 2,8 km2 / 100 mill. euros
- ▨ 2,8 - 28,7 (300 NUTS3 regions)
- ▢ 0 - 2,7 (991)

Agricultural land use/ GDP$_{PPS}$ (in 100 mill. euros), EU 23+3 average = 46,6 km2 / 100 mill. euros
- ▨ 46,7 - 896,79 (386)
- ▢ 0 - 46,6 (905)

The criteria for urban influence:
- Population density above the average (107 inhabitants/km^2 in EU25+4)
- And/or at least a European level functional urban area (based on typology made by ESPON Action 1.1.1)
Degree of human intervention is estimated through the average shares of land covers
(in EU23+3, no data on Cyprus, Malta and Norway):
High human intervention: at least the share of artificial surfaces above average (3,48%)
Medium human intervention: at least the share of agricultural land above average (50,36%)
Low human intervention: only the share of residual land use above average (46,16%)

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Ranking of Functional Urban Areas (FUAs):
Origin of data: EUROSTAT, National Statistical
Offices, National experts
Source: Nordregio, ESPON Data Base

Population density and GDP$_{PPS}$:
Origin of data: EU15 and CC's: Eurostat
Norway and Switzerland:
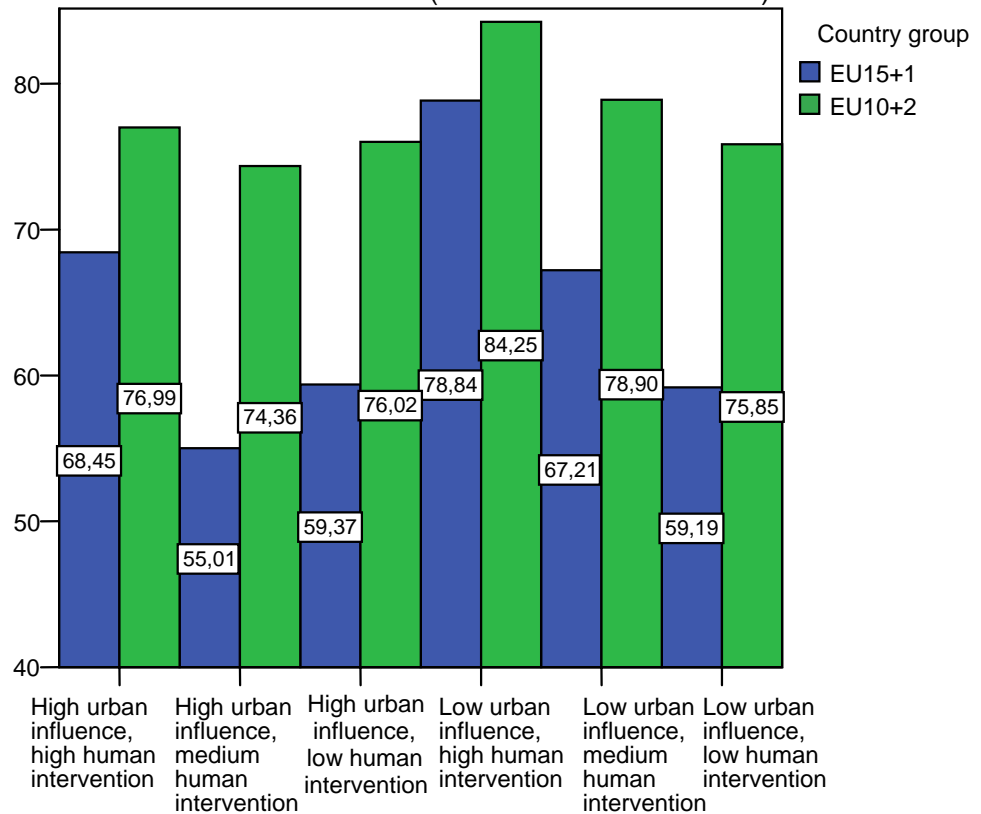National Statistical Offices
Time reference:1999

Land cover types:
Origin of data: EEA, Corine Land Cover 90
Source: ESPON Data Base

Map 3.32. Artificial surfaces per GDP$_{PPS}$ and agricultural land use per GDP$_{PPS}$ in relation to urban–rural typology.
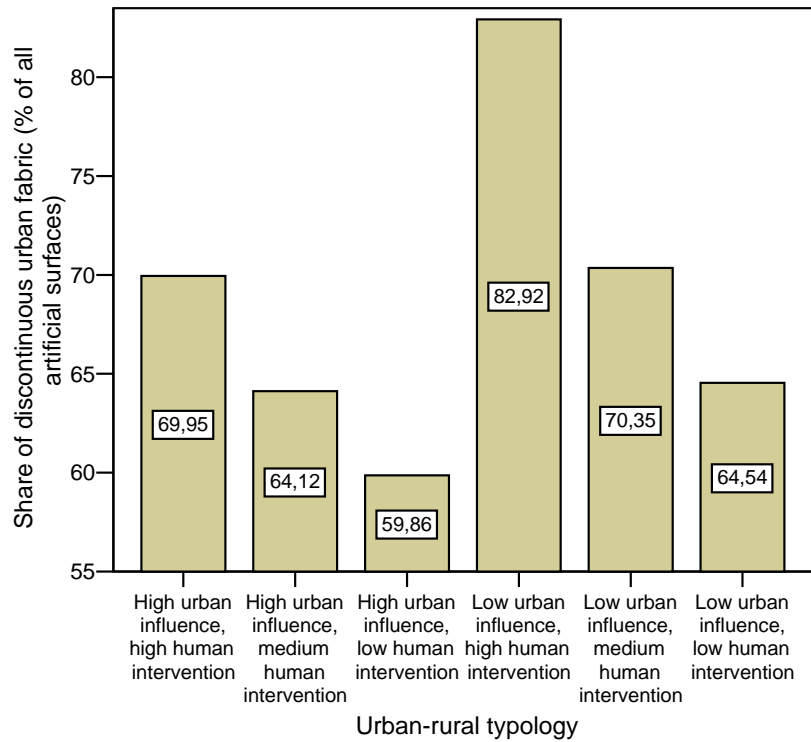
Graph 3.42. Share of discontinuous urban fabric in relation to urban-rural typology.
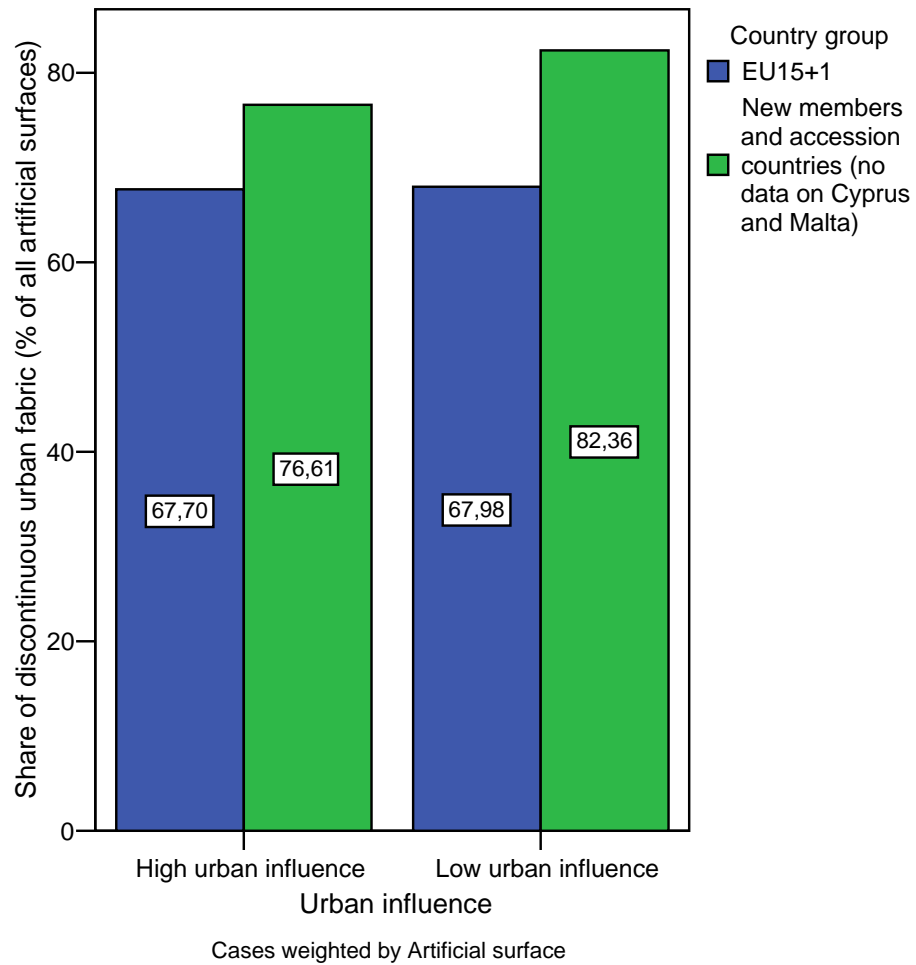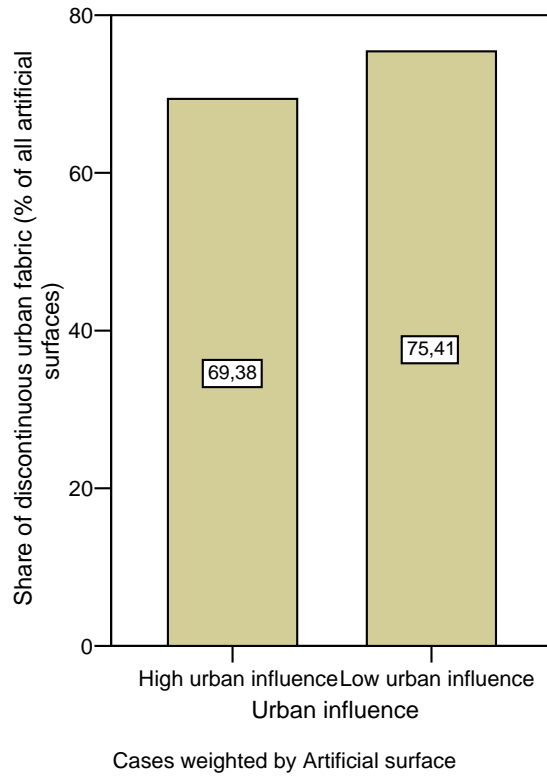
Graph 3.43. Share of discontinuous urban fabric in relation to urban influence.
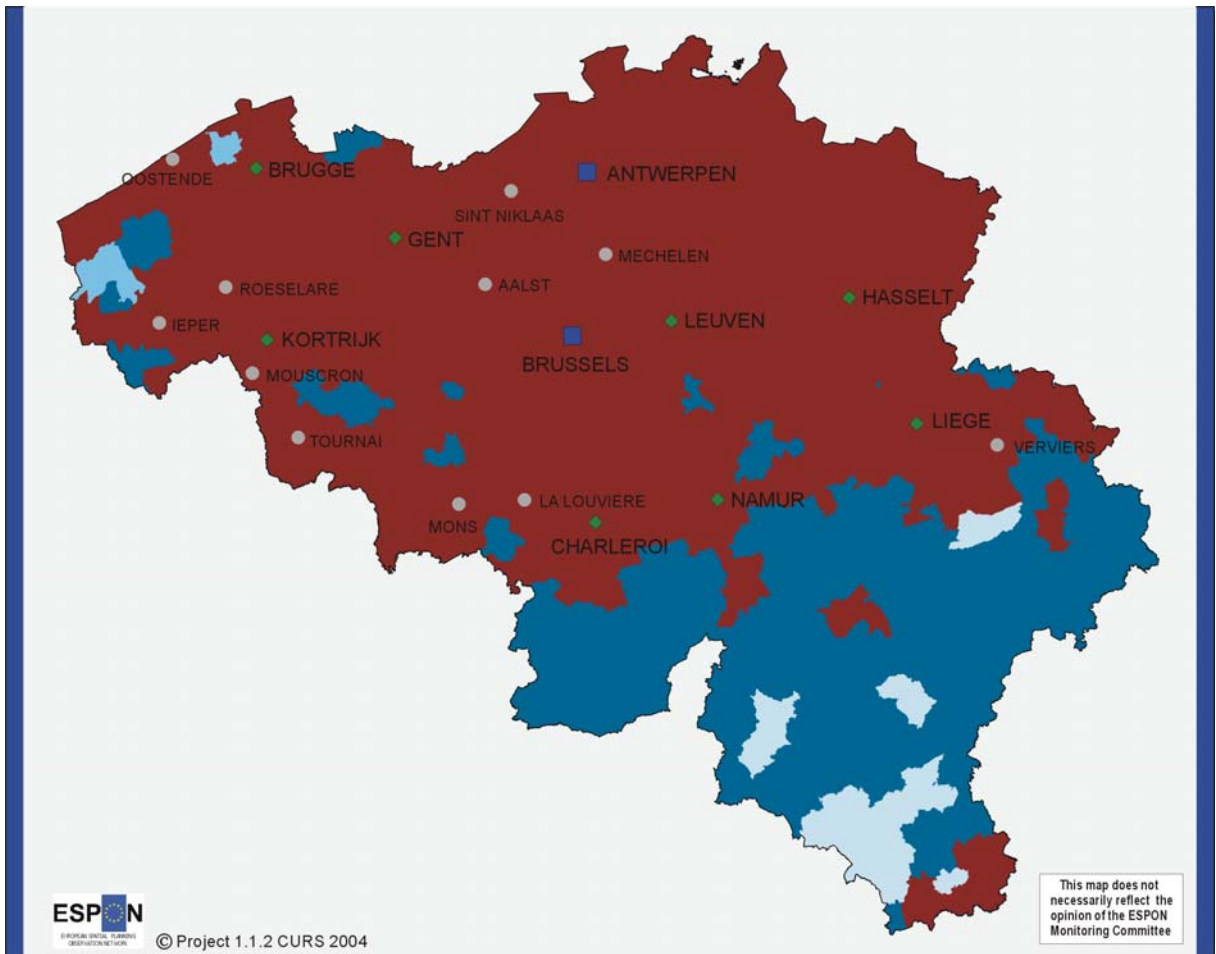
Urban-rural typology in Belgium at NUTS5-level,
based on EU 23+3 averages

■	High urban influence, high human intervention	(487)
■	Low urban influence, high human intervention	(88)
■	Low urban influence, medium human intervention	(3)
■	Low urban influence, low human intervention	(11)

Typology of Funtional urban areas (from ESPON Action 1.1.1)

■ European/Global
◆ National/Transnational
● Local/Regional

The criteria for urban influence:
- Population density above the average (107 inhabitants/km² in EU25+4)
- And/or at least a European level functional urban area (based on typology made by ESPON Action 1.1.1)

Degree of human intervention is estimated through the average shares of land covers (in EU23+3, no data on Cyprus, Malta and Norway):
High human intervention: at least the share of artificial surfaces above average (3,48%)
Medium human intervention: at least the share of agricultural land above average (50,36%)
Low human intervention: only the share of residual land use above average (46,16%)

Land cover:
Origin of data: Corine Land Cover 90
Population:
Origin of data: National Statistical Office
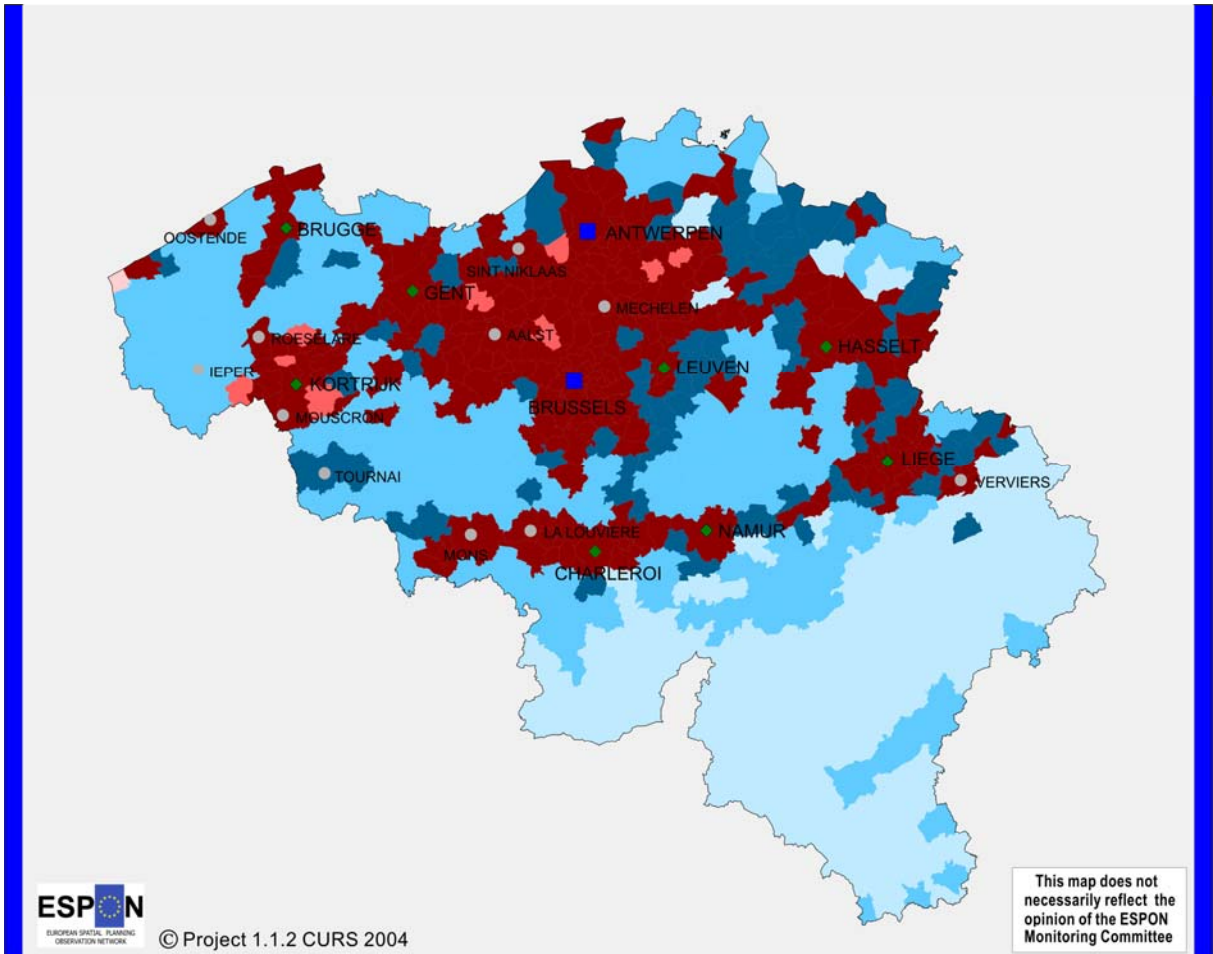Time reference:2000
Source: CURS

Ranking of Functional Urban Areas (FUAs):
Origin of data: EUROSTAT, National Statistical
Offices, National experts
Source: Nordregio, ESPON Data Base

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Map 3.33. Urban–rural typology in Belgium at NUTS 5 level, based on EU 23+3 averages.

Urban-rural typology in Belgium at NUTS5-level based on national averages

■ High urban influence, high human intervention	(239 NUTS 5 regions)
■ High urban influence, medium human intervention	(9)
■ High urban influence, low human intervention	(1)
■ Low urban influence, high human intervention	(77)
■ Low urban influence, medium human intervention	(179)
■ Low urban influence, low human intervention	(84)

Land cover:
    Origin of data: Corine Land Cover 90
Population:
    Origin of data: National Statistical Office
    Time reference:2000

Source: CURS

Ranking of Functional Urban Areas (FUAs):
    Origin of data: EUROSTAT, National Statistical Offices, National experts
Source: Nordregio, ESPON Data Base

Typology of Funtional urban areas (from ESPON Action 1.1.1)

- ■ European/Global
- ◆ National/Transnational
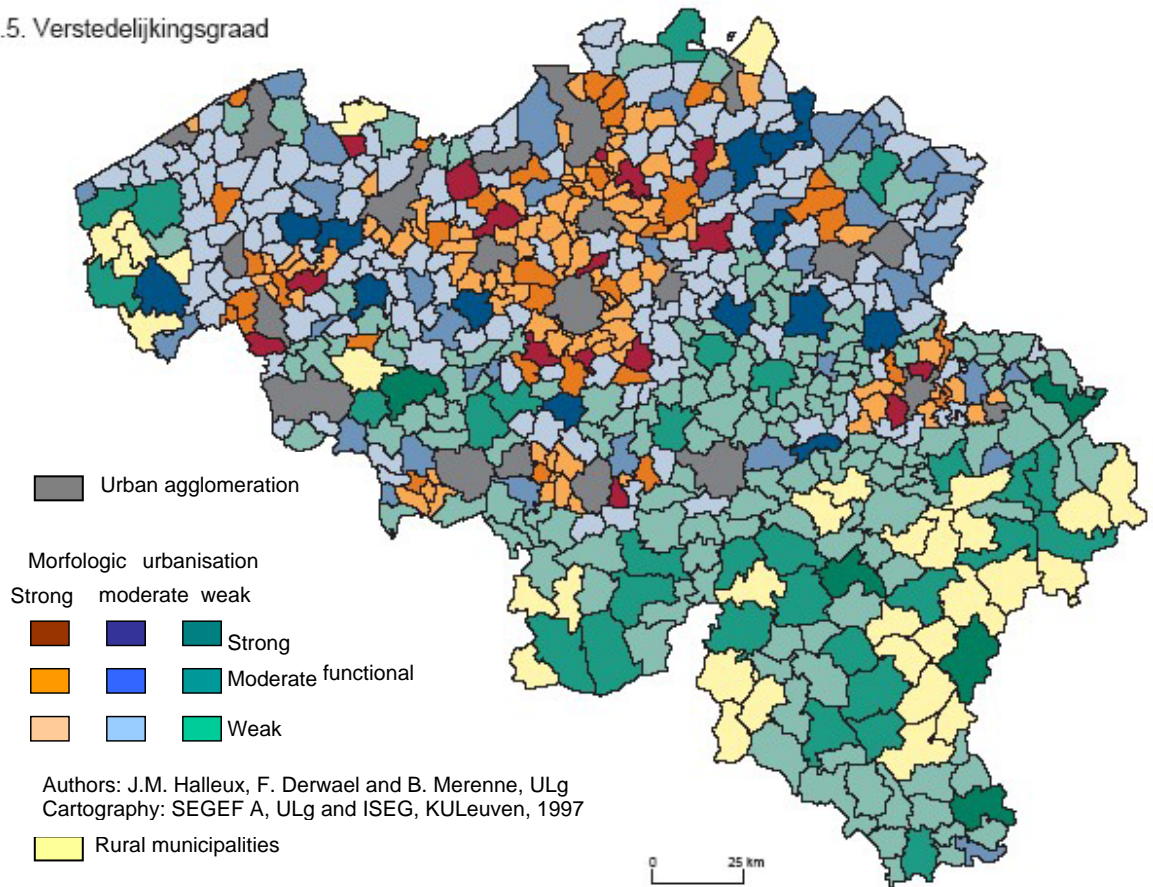- ● Local/Regional

The criteria for urban influence:
- Population density above the average (336 inhabitants/km^2 in Belgium)
- And/or at least a European level functional urban area (based on typology made by ESPON Action 1.1.1)

Degree of human intervention is estimated through the average shares of land covers (in Belgium):
High human intervention: at least the share of artificial surfaces above average (19,18%)
Medium human intervention: at least the share of agricultural land above average (58,63%)
Low human intervention: only the share of residual land use above average (22,19%)

Map 3.34. Urban–rural typology in Belgium at NUTS 5 level, based on national averages

1.5. Verstedelijkingsgraad

Legend:

Urban agglomeration

Morfologic urbanisation

Strong · moderate · weak

- Strong
- Moderate functional
- Weak

Authors: J.M. Halleux, F. Derwael and B. Merenne, ULg
Cartography: SEGEF A, ULg and ISEG, KULeuven, 1997

Rural municipalities

0   25 km

Source: Mérenne, B., Van der Haegen, H., Van Hecke, E. (1998) België ruimtelijk doorgelicht, Brussel, DWTC: p. 14.

Map 3.35. Belgian classification for national urban–rural typology at NUTS 5 level
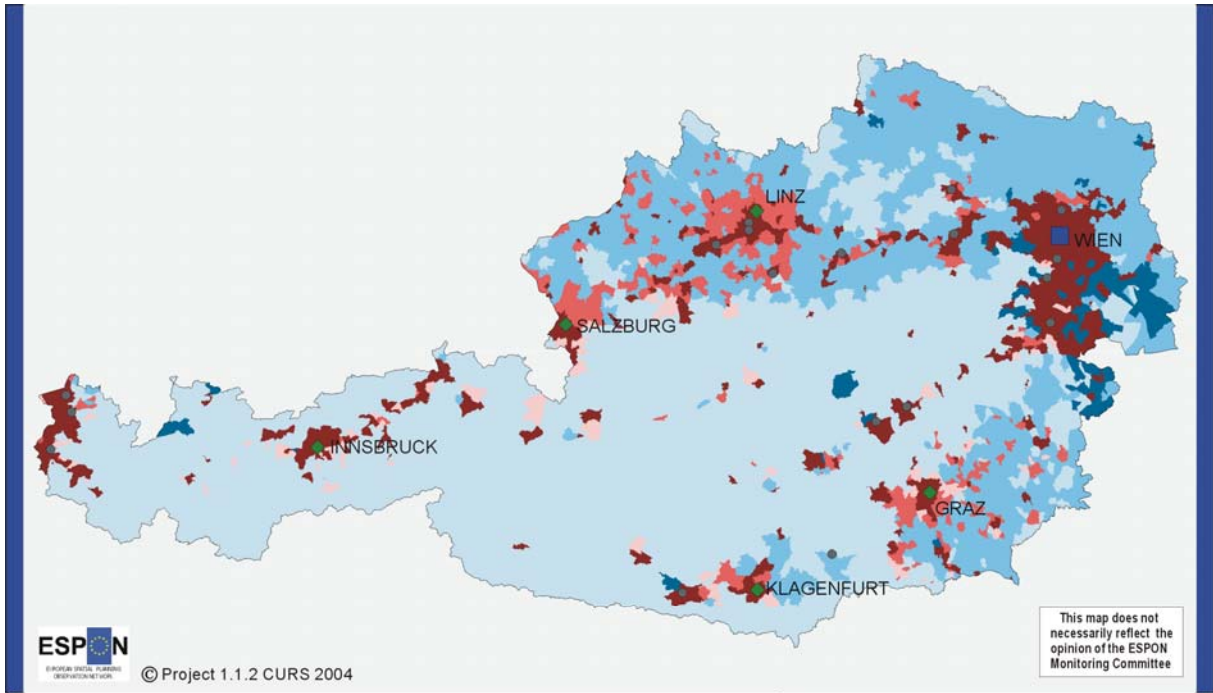
Urban-rural typology in Austria at NUTS5 level,
based on European averages

	High urban influence, high human intervention	(346)
	High urban influence, medium human intervention	(236)
	High urban influence, low human intervention	(83)
	Low urban influence, high human intervention	(77)
	Low urban influence, medium human intervention	(748)
	Low urban influence, low human intervention	(868)

Typology of Functional urban areas (from ESPON Action 1.1.1):

■ European/Global
♦ National/Transnational
● Local/Regional

The criteria for urban influence:
- Population density above the average (107 inhabitants/km^2 in EU25+4)
- And/or at least a European level functional urban area (based on typology made by ESPON
  Action 1.1.1)

Degree of human intervention is estimated through the average shares of land covers
(in EU23+3, no data on Cyprus, Malta and Norway):
High human intervention: at least the share of artificial surfaces above the average (3,48%)
Medium human intervention: at least the share of agricultural land above the average (50,36%)
Low human intervention: only the share of residual land use above the average (46,16%)

Map 3.36. Urban–rural typology in Austria at NUTS 5 level, based on EU 23+3 averages
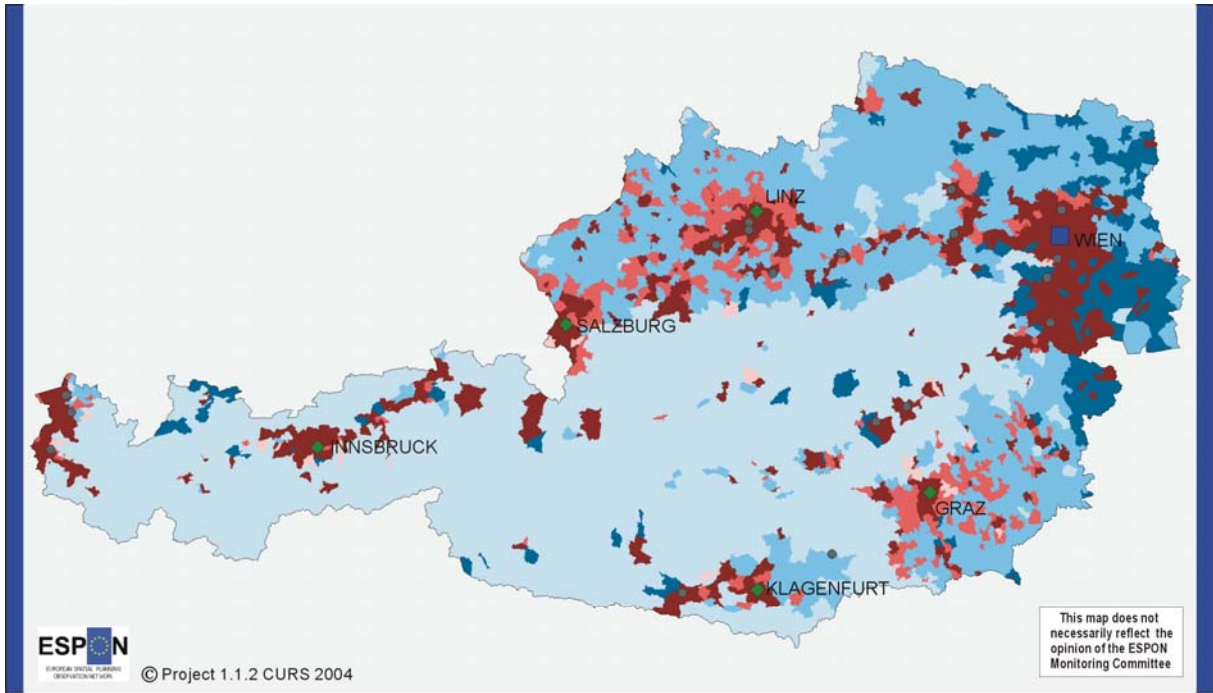
Urban-rural typology in Austria at NUTS5 level, based on national averages

■	High urban influence, high human intervention	(438)
■	High urban influence, medium human intervention	(294)
■	High urban influence, low human intervention	(28)
■	Low urban influence, high human intervention	(163)
■	Low urban influence, medium human intervention	(769)
■	Low urban influence, low human intervention	(666)

Typology of Functional urban areas (from ESPON Action 1.1.1):

- ■ European/Global
- ◆ National/Transnational
- ● Local/Regional

The criteria for urban influence:
- Population density above the average (96,8 inhabitants/km²)
- And/or at least a European level functional urban area (based on typology made by ESPON Action 1.1.1)

Degree of human intervention is estimated through the average shares of land covers:
High human intervention: at least the share of artificial surfaces above average (1,76%)
Medium human intervention: at least the share of agricultural land above average (36,34%)
Low human intervention: only the share of residual land use above average (61,9%)

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This map does not necessarily reflect the opinion of the ESPON Monitoring Committee

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Land Cover:
Origin of data: Corine Land Cover 90
Source: CURS

Population density:
Origin of data: National Statistical Office
Time reference:1999
Source: ÖIR

Ranking of Functional Urban Areas (FUAs):
Origin of data: EUROSTAT, National Statistical Offices, National experts
Source: Nordregio, ESPON Data Base

Map 3.37. Urban–rural typology in Austria at NUTS 5 level, based on national averages