

Evidence-informed spatial planning and analysis: Short-term, all-island, priority indicators for long term cooperation and prosperity

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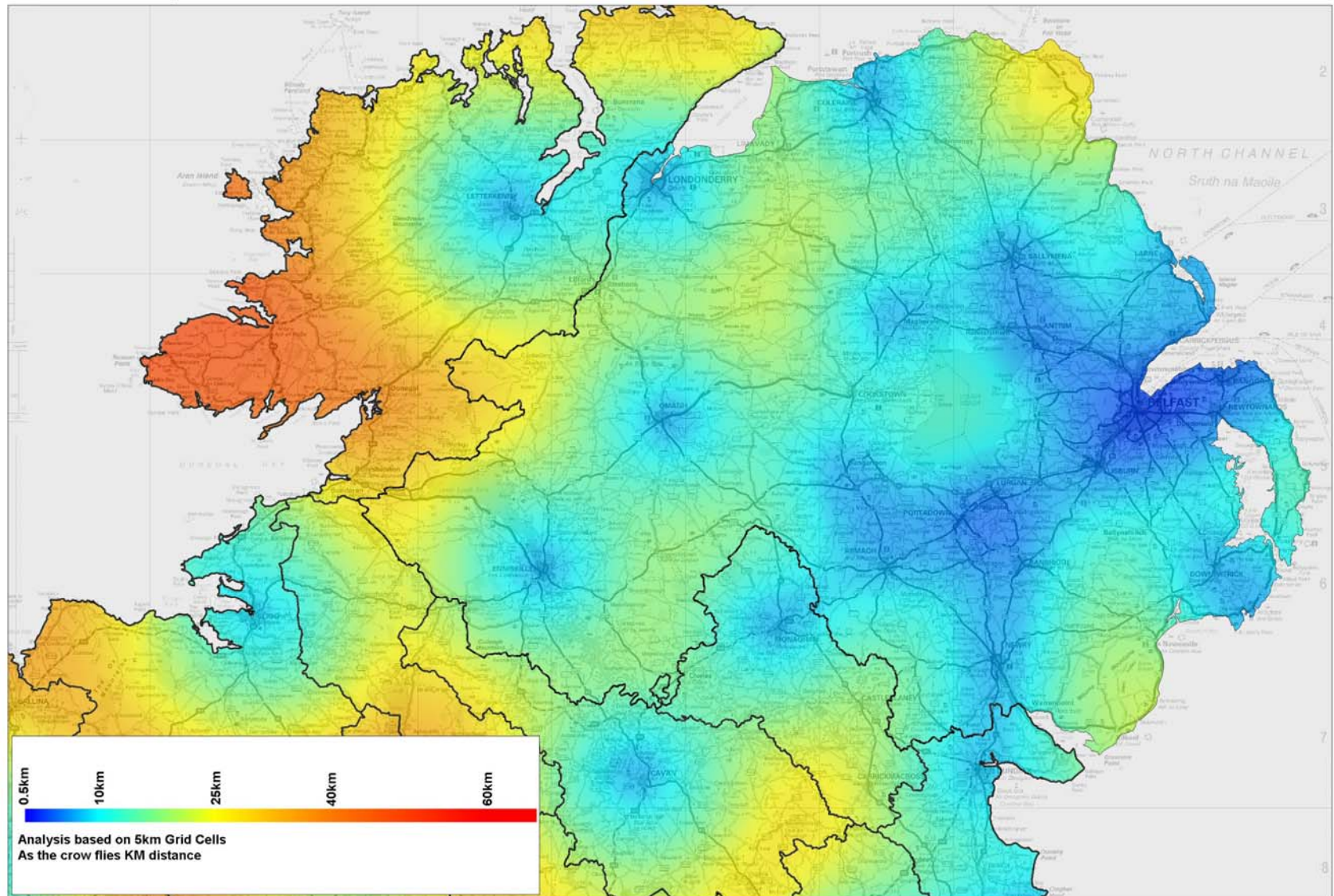


Evidence-based planning

- We NEED joined-up, all-island datasets as a priority



Access to Hospitals in Ireland - distance in KM's



Present difficulties in providing evidence base

- 1) *Availability*
 - Data are not available or only has limited availability or are only available at certain scales (e.g., national but not at regional or county-level).
- 2) *Sourcing*
 - Some data are difficult to source because they are not openly published or not published at suitable scales for meaningful analysis. It is not always clear who is responsible for compiling some data.



Present difficulties in providing evidence base

- 3) *Questions and what is being measured*
 - Survey instruments between jurisdictions often vary in terms of the questions being asked, or are measuring related but subtly different phenomena.



RoI	NI	Same
<p>If your accommodation is rented how much does your household pay? - Answer in €'s and frequency</p>	<p>No question</p>	<p>No</p>
<p>No question</p>	<p>Over the last 12 months would you say your health has been: Good/Fairly good/Not Good</p>	<p>No</p>
<p>What is the nature of the occupancy of your household?</p> <ul style="list-style-type: none"> • Owner occupied where loan or mortgage repayments are being made • Owner occupied where no loan or mortgage repayments are being made • Being purchased from a Local Authority under a Tenant Purchase Scheme • Rented from a Local Authority • Rented unfurnished other than from a Local Authority 	<p>Does your household own or rent the accommodation?</p> <ul style="list-style-type: none"> • Owns outright • Owns with a mortgage or loan • Pays part rent and part mortgage (shared ownership) • Rents <p>Lives here rent free</p>	<p>Part</p>



Present difficulties in providing evidence base

- 4) *Data units and categories*
 - Data measurement between the jurisdictions can collect data into different data units, but analysis can also classify data into different categories making comparison between jurisdictions tricky because like is not always being compared with like.



Present difficulties in providing evidence base

- Social Class/Social Grade
 - Rol
 - Professional Workers
 - Managerial and technical
 - Non-manual
 - Skilled manual
 - Semi-skilled
 - Unskilled
 - All other gainfully occupied
 - NI
 - AB. Higher and intermediate managerial / administrative / professional
 - C1. Supervisory, clerical, junior managerial / administrative / professional
 - C2. Skilled manual workers
 - D. Semi-skilled and unskilled manual workers
 - E. On state benefit, unemployed, lowest grade workers

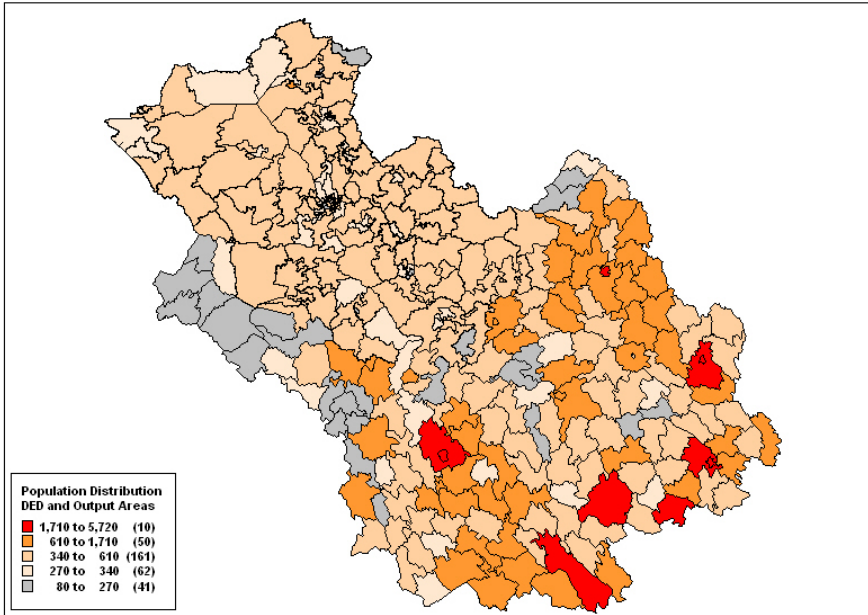


Present difficulties in providing evidence base

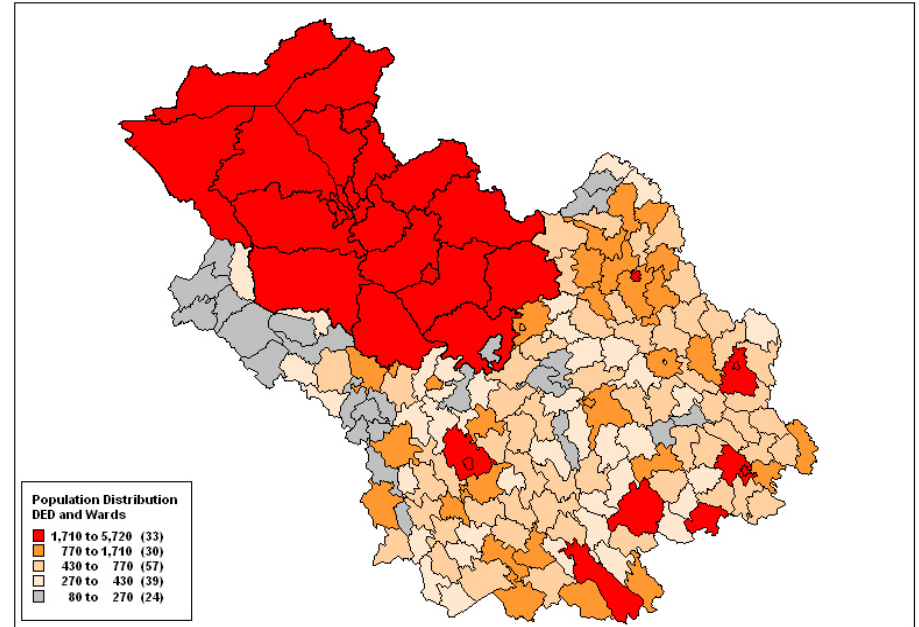
- 5) *Spatial scales*
 - Data across jurisdictions are not necessarily collected or reported at the same spatial scales. MAUP issues.
 - Rol: National, NUTS 111, County, DED
 - NI: National, NUTS 111, District, Wards, SOA, OA

Unit	Number	Av. Population	Av. Size (KM sq)
ED's	3414	1062	20.4
OA's	5022	337	2.8
Wards	582	3000 approx.	24





Population Count 2001/02
Cavan and Monaghan DED's
Fermanagh OA's



Population Count 2001/02
Cavan and Monaghan DED's
Fermanagh Ward's



Present difficulties in providing evidence base

- 6) *Synchronicity*
 - Data are often reported for different years or time-series data is unavailable
 - E.g. Census
 - Rol every 5 years: 1996, 2002, 2006, 2011
 - NI every 10 years: 1991, 2001, 2011



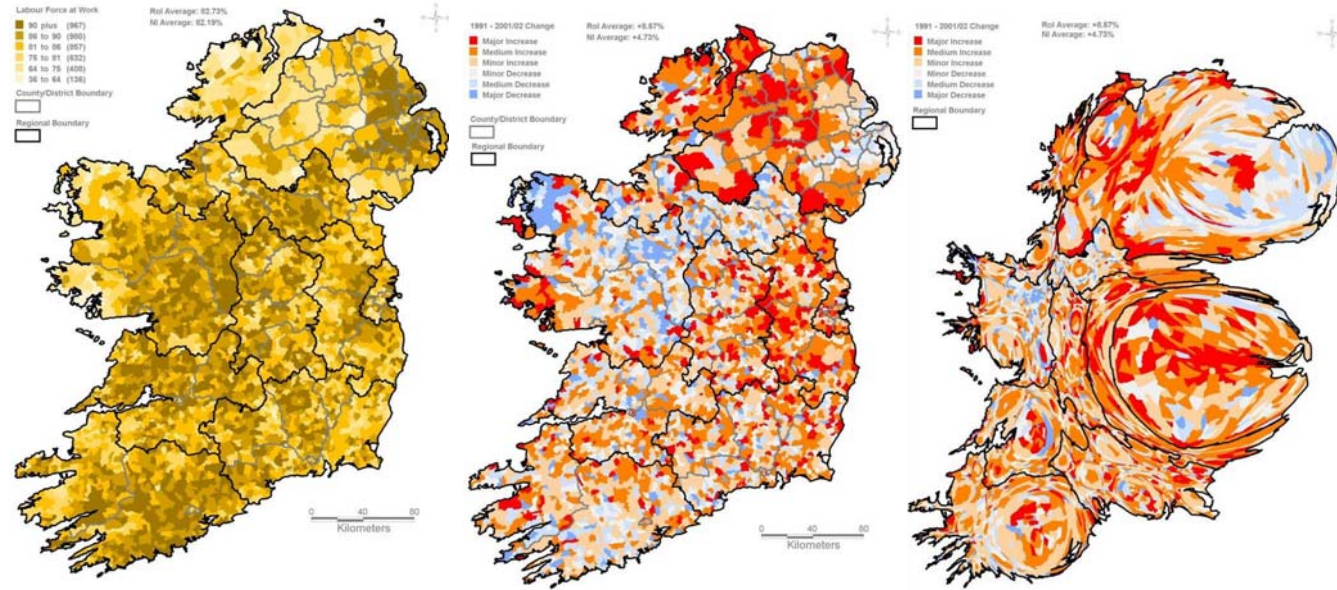
Present difficulties in providing evidence base

- 7) *Data continuity*. The areas into which data are collected, or the units being used, are periodically altered making comparison between areas difficult.
- 8) *Data clarity/metadata*. In some cases it is not clear how statistical material had been derived, this particularly the case if data were calculated using a formula.
Sometimes data definitions are sometimes not clear
- 9) *Context*. In some cases data differ because different policies operate across the different jurisdictions. For example, disposal income varies as a function of the tax regime not simply the level of earnings.



Addressing these issues

- INSPRIRE
- MOLAND
- AIRO



- Looking at improving data interoperability
- Providing tools and cross-border analyses



Short-term spatial indicators

- All-island monitoring of progress
- A short-term evidence base for long term cooperation and planning
- Indicators that focus on key sectors
- Available on an annual basis
- Available in both Ireland and Northern Ireland (and preferably Europe)
- Not an easy task



The process

- NUI Maynooth workshop
- University of Ulster workshop
- Post workshop Research



Maynooth workshop

- Discussion theme 1: “Data/indicator priorities in relation to joined-up spatial planning”
 - Discussion focused on technical issues
 - Identification of key groupings of indicators
 - Delegates were asked to forward their ideas regarding priority indicators after the workshop



Maynooth workshop - summary list of potential indicators (168)

- A. POPULATION DISTRIBUTION, CHANGE & MOBILITY
- B. POPULATION STRUCTURE
- C. ECONOMIC ACTIVITY AND EMPLOYMENT STATUS
- D. ECONOMIC PERFORMANCE
- E. EDUCATION, SOCIO-ECONOMIC GROUPS / CLASSES & WEALTH
- F. HEALTH
- G. HOUSING
- H. TRAFFIC, TRAVEL TO WORK & COMMUTING CHANGE
- I. CULTURAL ATTRIBUTES AND ASSETS
- J. NATURAL ASSETS (HERITAGE & ENVIRONMENT)
- K. STRUCTURAL SPENDING
- L. MISCELLANEOUS

- A. POPULATION DISTRIBUTION, CHANGE & MOBILITY
 1. Population Density (persons per sq km)
 2. Urban / Rural Population and Land Use (and change)
 3. Percentage Change in Populations of Towns by size classes
 4. Population Change
 5. Percentage Population Change
 6. Components of Population Change (including Fertility Rates)
 7. Persons with a Different Address One Year Previously
 8. Immigration
 9. Origins of Immigrants
 10. Inter-County Migration
 11. Migration - for selected years and various age cohorts



UU Workshop

Hetherington & Harcourt (DRD)

- Monitoring the RDS
- 111 indicators
- 15 critical threshold indicators

1	The number of people achieving a recognised qualification in the Essential Skills of literacy and numeracy 2003 – 2006
2	Percentage of working age population qualified at NQF Level 3 or above 2001 – 2006
3	Deaths by cause 2001- 2005
4	Stillbirths and Infant deaths 2001 – 2005
5	The total amount of industrial and commercial waste disposed of by landfilling 2000 – 2002
6	The total controlled waste collected per household 2001- 2005/06
7	Index of value of construction output on infrastructure in NI (2001=100) 2001 – 2005
8	Housing Waiting List 2001- 2006
9	Levels of Urgent Need / Housing Stress Mar 01 - Mar 06
10	Proportionate use of transport by mode 2000/02 - 2003/05
11	The number of days where air quality objectives and EU limit values are exceeded 2001- 2005
12	Average speeds on the Regional Strategic Transportation Network 2003 and 2005
13	Proportion of urban dwelling units built within the urban footprint of settlements > 5000 population 2001 – 2006
14	Net stock of Northern Ireland VAT registered companies 2001 – 2006
15	Median weekly earnings for all full-time employee jobs 2002 – 2006



UU workshop

Bruce McCormack (DEHLG)

- Monitoring the NSS
- Department works towards a relatively small number of indicators (in addition to a longer list)
- 14 key data types

Population x age & nationality
Household / individual incomes
Where lived 1 and 5 years ago
Occupancy rates
Employment x sector/occupation
Unemployment
Travel to work x mode x distance/location
GVA x industry/sector
Investment in infrastructure (roads, water, sanitation)
House prices x size and type
Houses commenced and completed
Amount of zoned residential and serviced land
Planning approvals (residential, commercial)
Land cover and land use



UU workshop discussion

- Discussions guided by “summary list” NUIM workshop
- Result:
 - 47 “indicators” with different levels of importance
 - Issues: availability, compatibility, spatial scale, frequency

	INDICATOR	Importance (A = most imp.)					Availability
		A	B	C	D	E	
1.	Access to Services e.g. GPs	X			X		Both (not immed.)
2.	Income	X		X	X		(CACI) Both (not immed.)
3.	House prices (inc. land value)	X		X		X	Both (not immed.) (not land values)
4.	Affordability index (inc. cost profile of area)	X			X		NI (see nihe.gov.uk)
5.	Waste, Inc. recycling (commercial/industrial/resi)	X	X		X	X	Both (not immed.)
6.	Groundwater avail (catchment)	X					Both
7.	Groundwater quality	X				X	Both
8.	All-island Deprivation index	X		X	X		Both (not immed.)
9.	Fuel poverty index	X					Not yet – check
10.	Volume & tonnage of traffic	X					Both – check
11.	Household carbon footprint					X	Both for eco footprint - check
12.	Roads			X			Both
13.	Land use/zoning change			X	X		CORINE. Both - check
14.	...						
15.	...						



Post workshop research

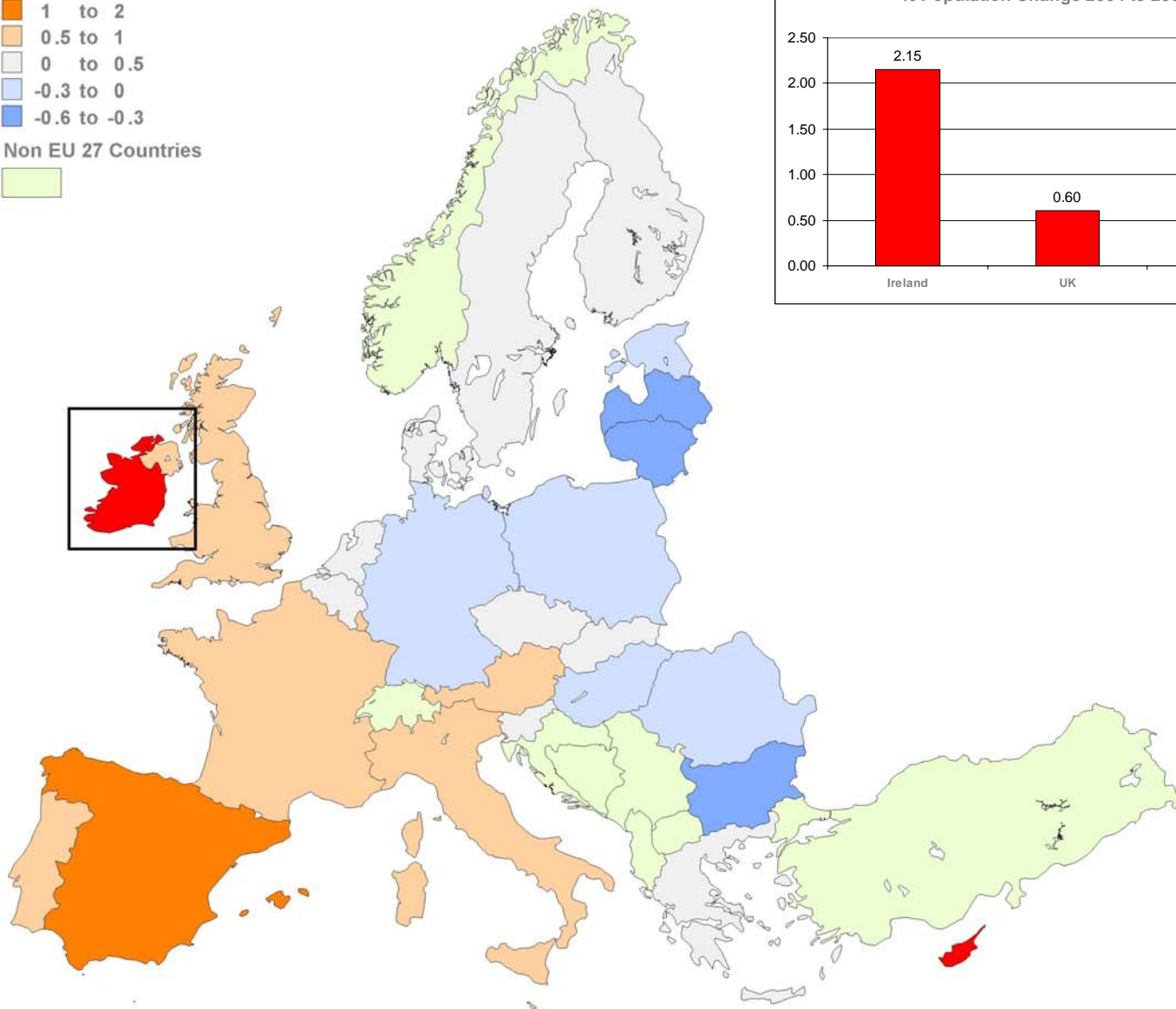
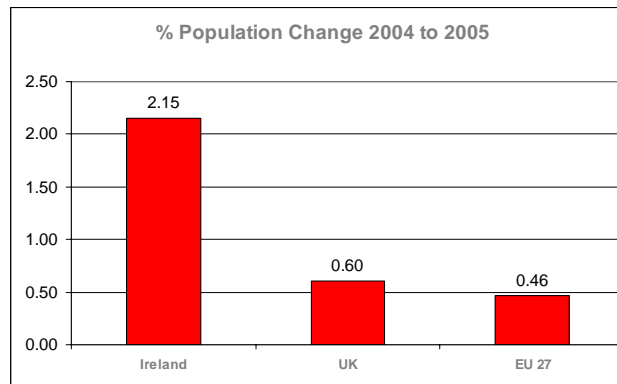
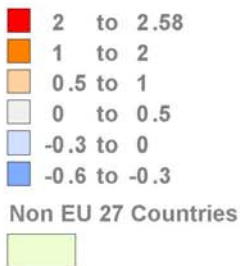
- Creation of a single spreadsheet that combined all lists
 - Align themes/indicators and “clean up”
- Initial selection by committee on the basis of criteria
 - Split in A and B lists
 - At least one indicators per theme
 - Selection was partially driven by availability/compatibility/frequency in addition to the importance of the indicator
- Study of metadata and data collection
- Development of dataset
- Final selection by committee (20 priority indicators)
- Output (Mapping)

Examples



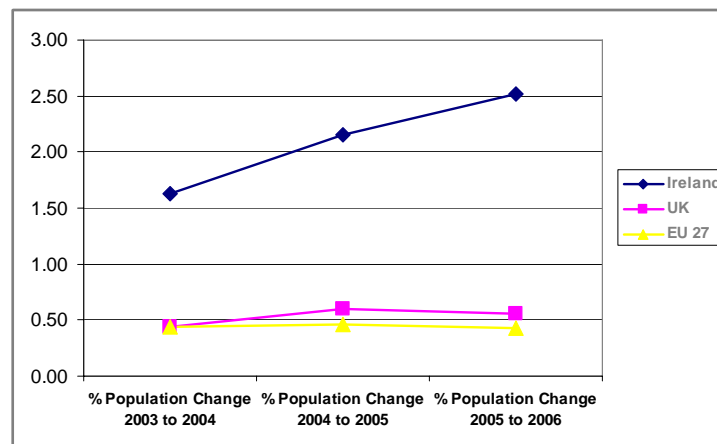
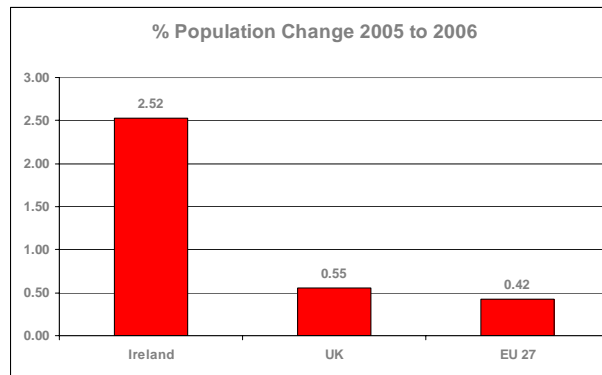
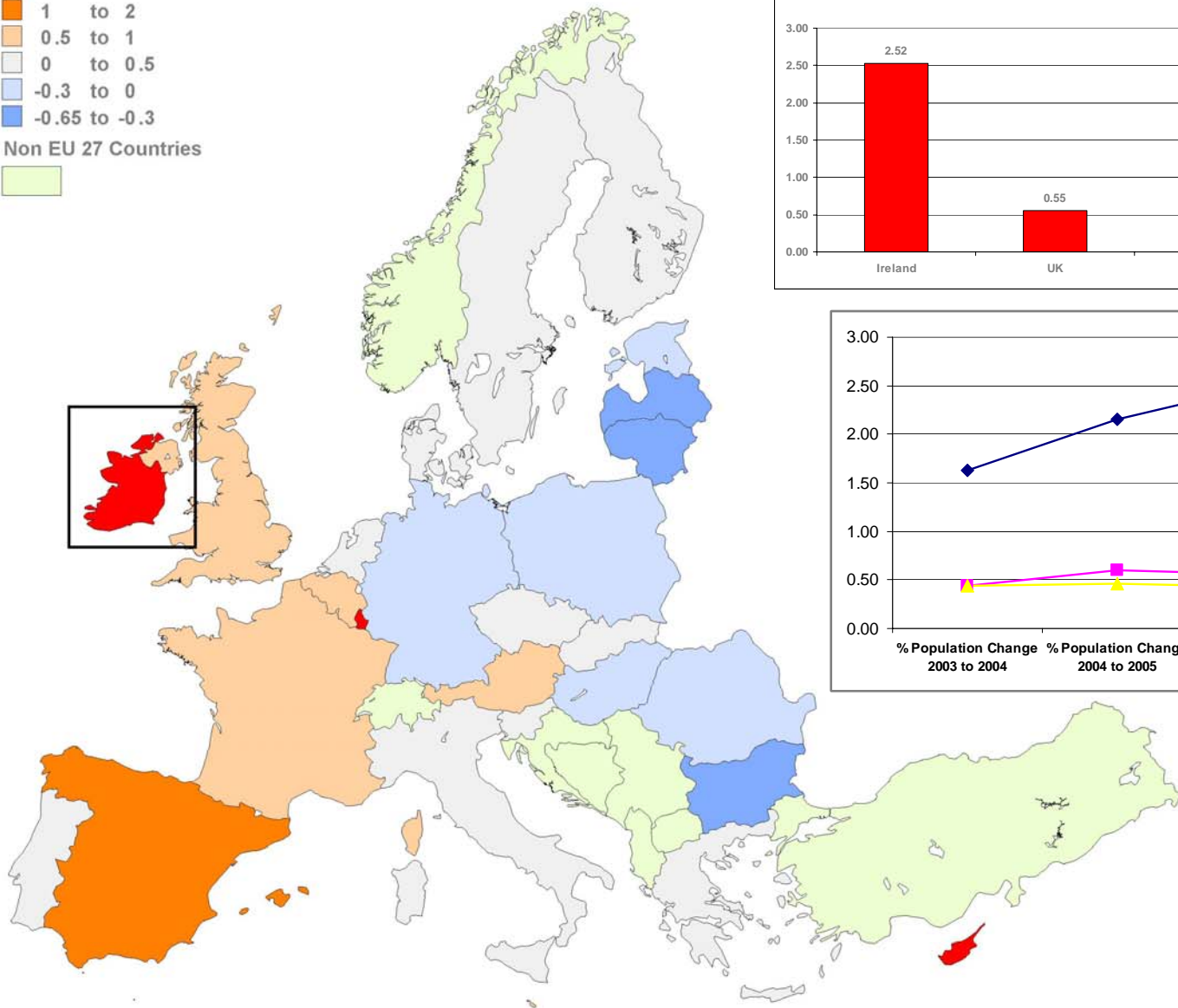
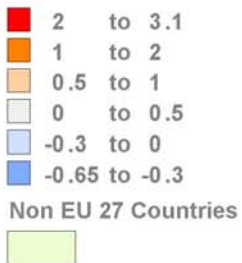
Population Change within EU 27: 2004 to 2005

Source: Eurostat

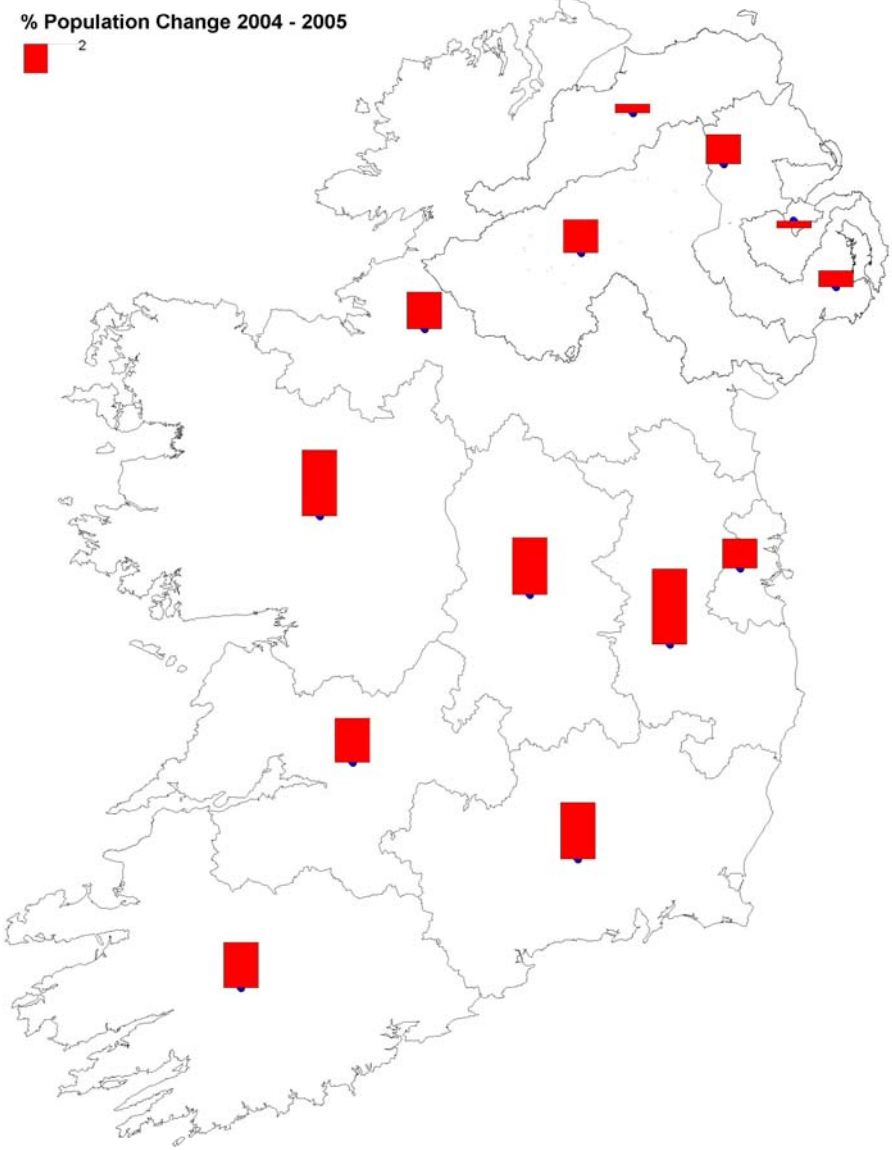


Population Change within EU 27: 2005 to 2006

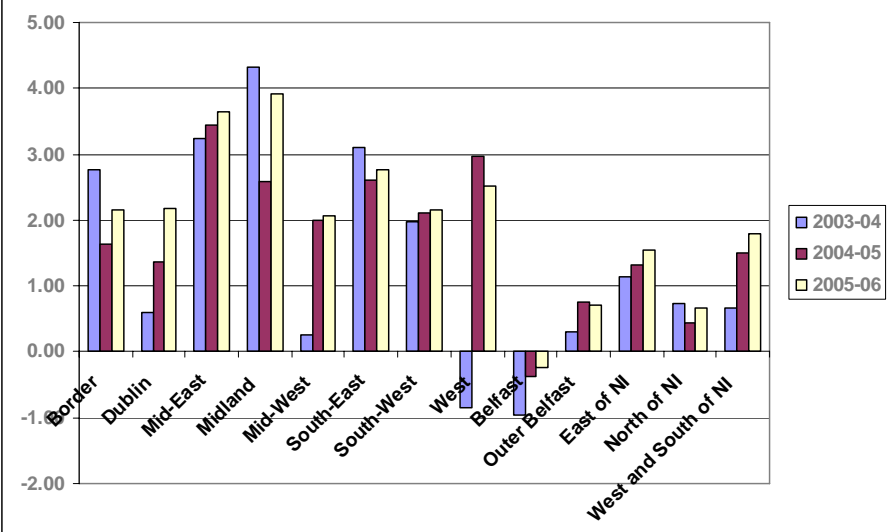
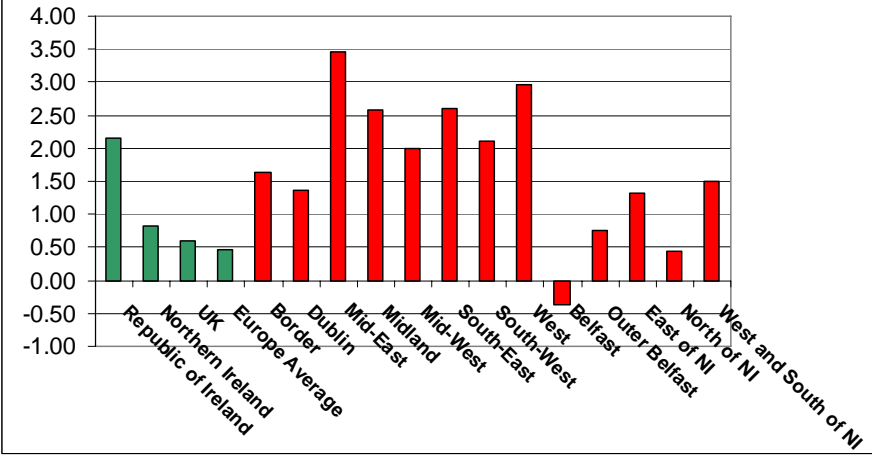
Source: Eurostat



Percentage Population Change, 2004 - 2005



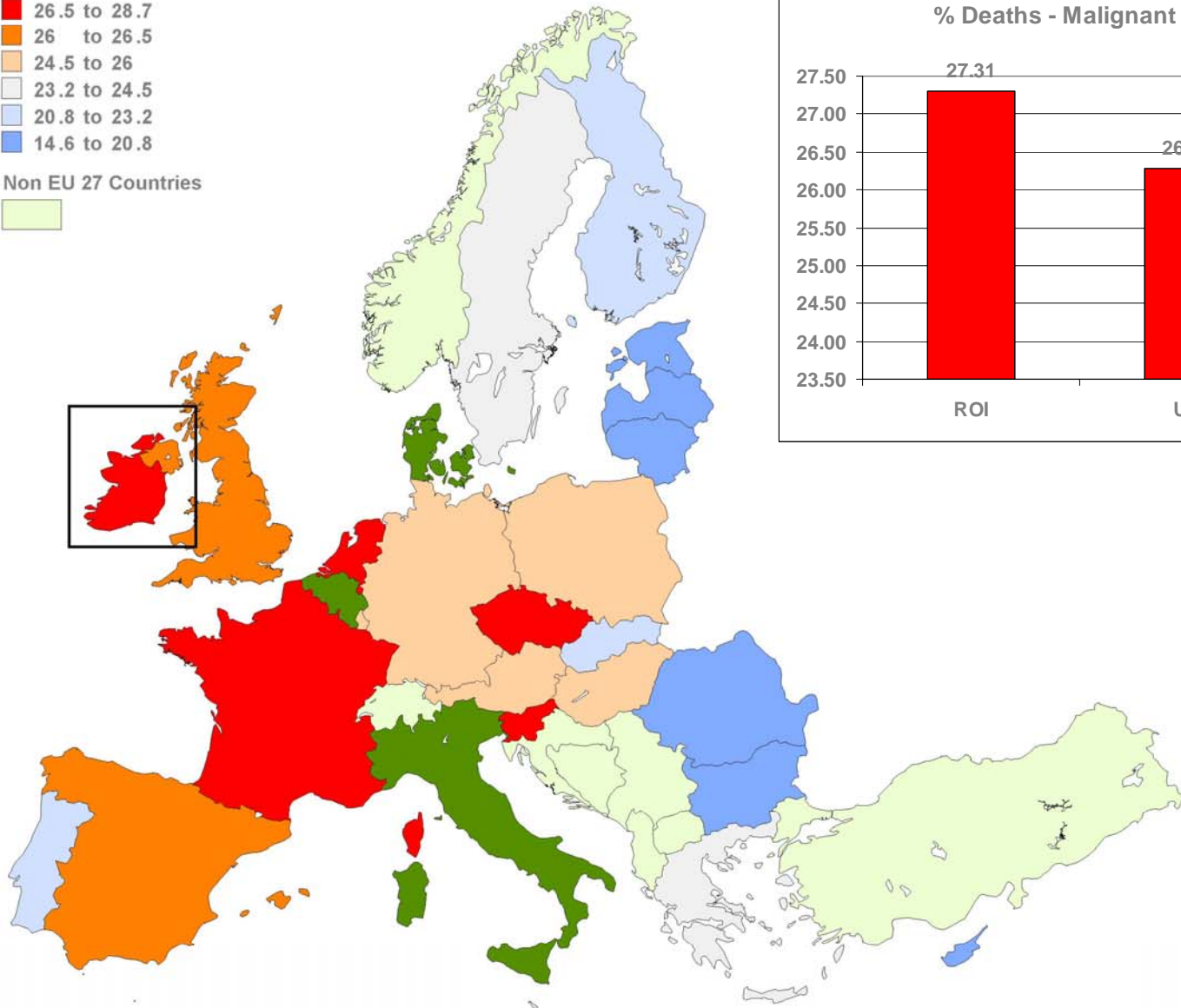
% Population Change 2004 - 2005



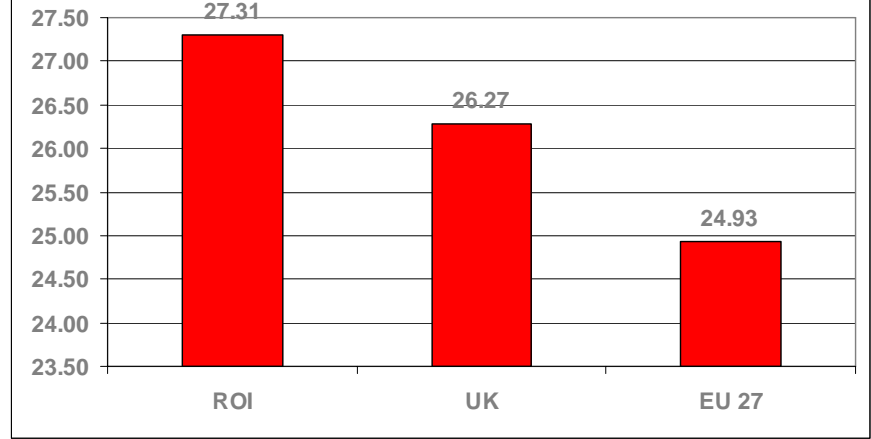
st practices in spatial planning and economic development.

% Of All Deaths: Malignant Neoplasms, 2004

Source: Eurostat

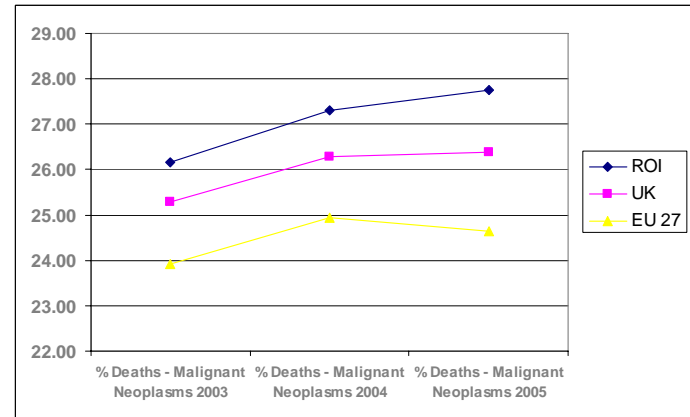
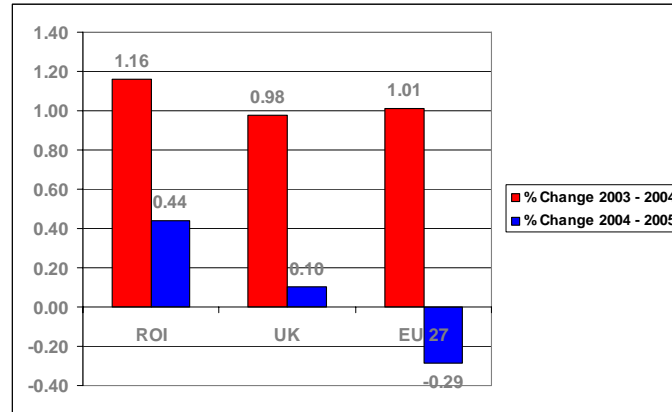
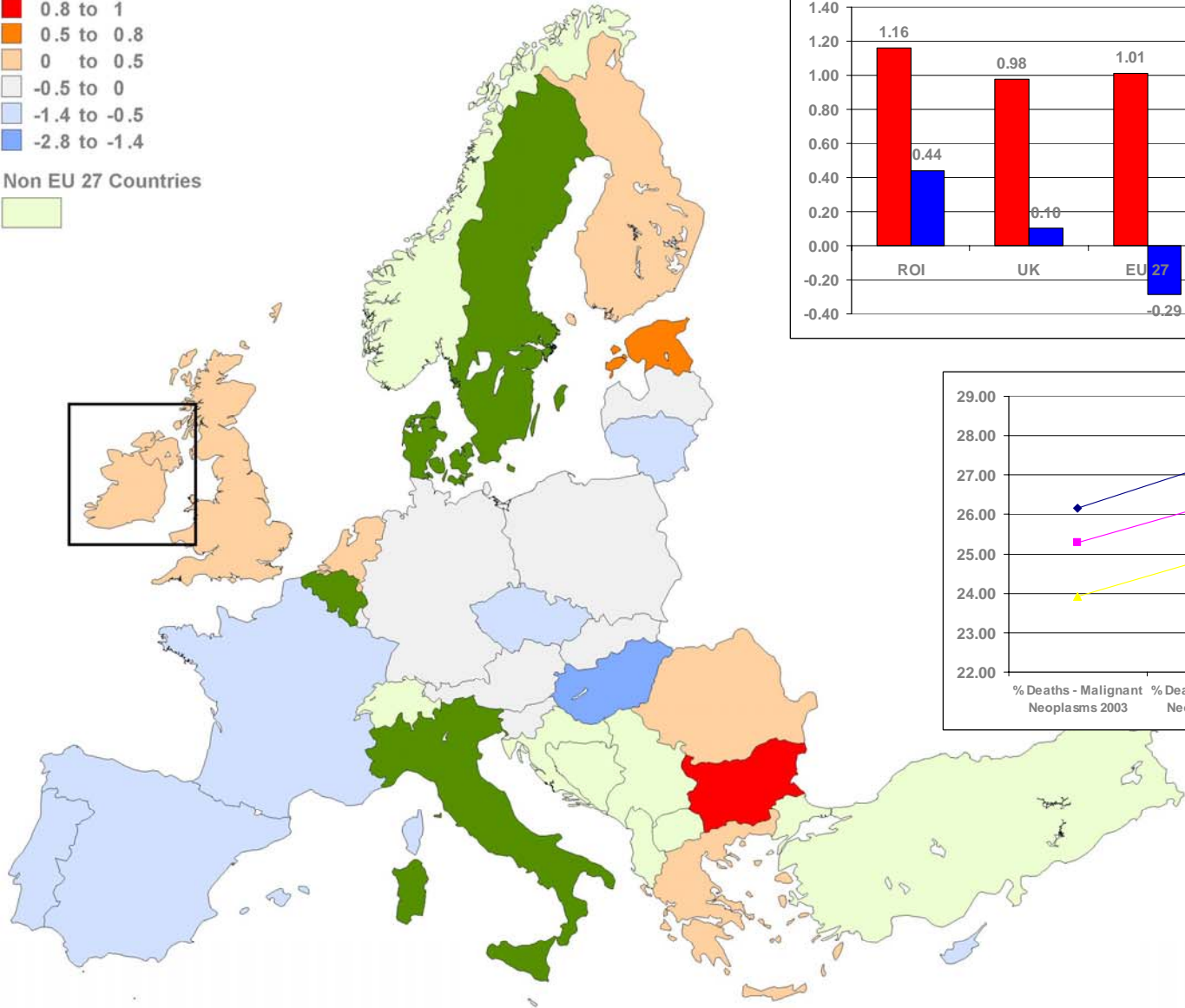
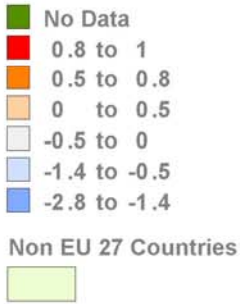


% Deaths - Malignant Neoplasms 2004



% Of All Deaths: Malignant Neoplasms, Change 2004 - 05

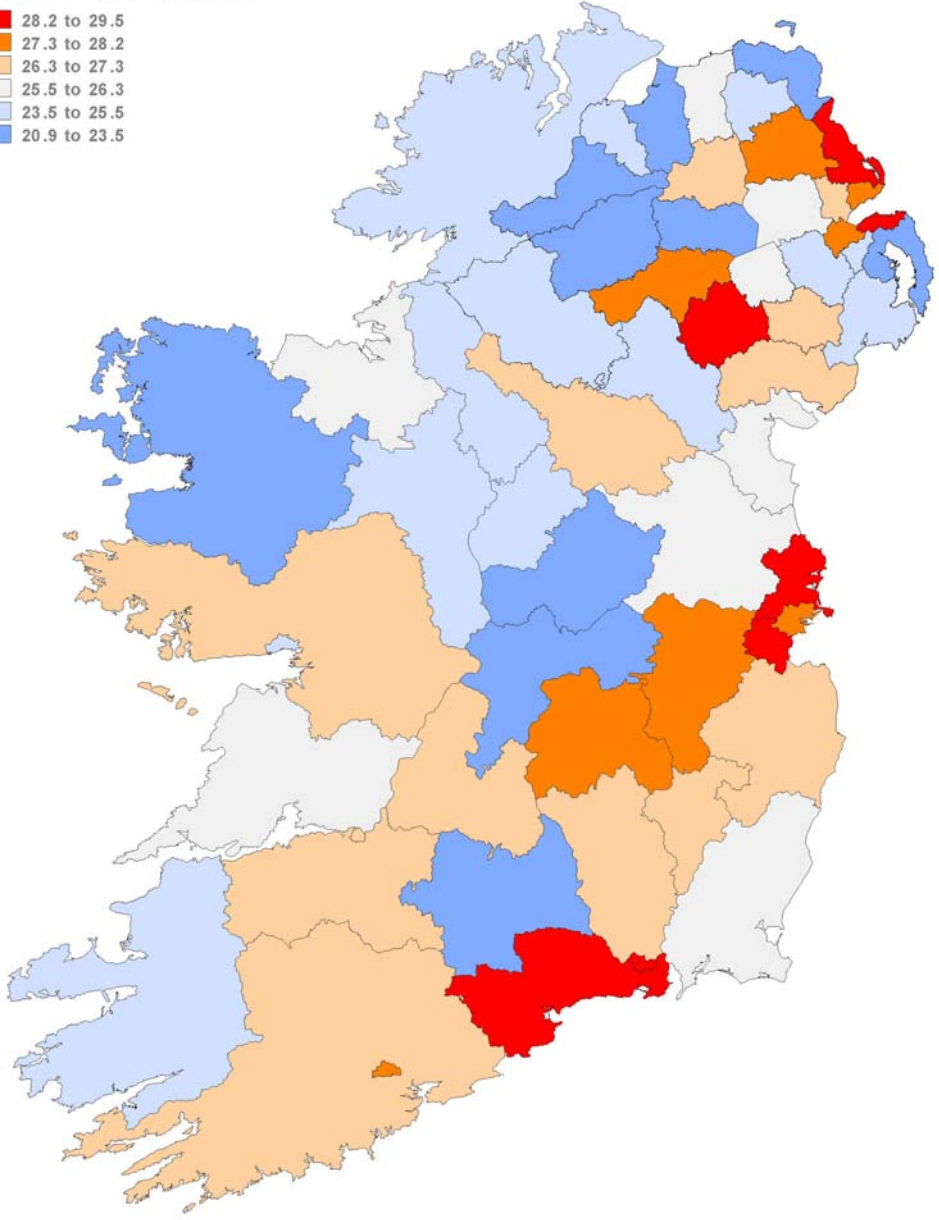
Source: Eurostat



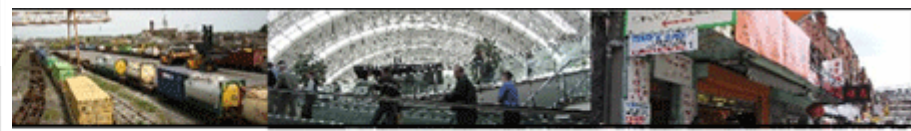
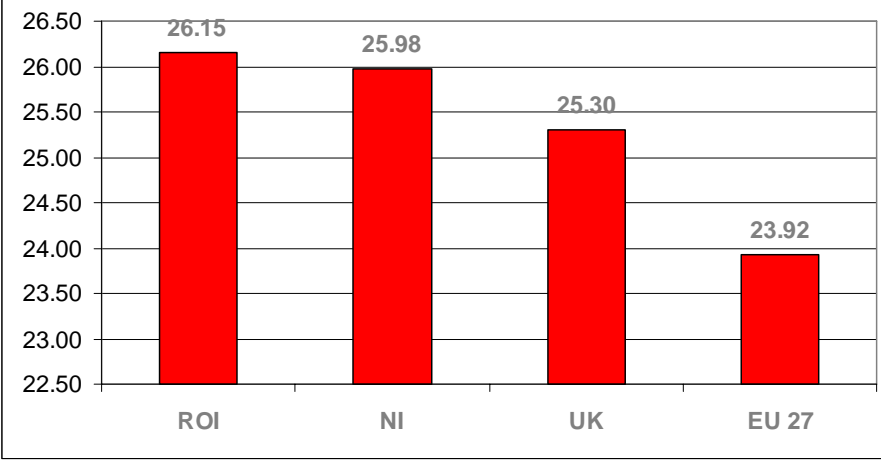
% of All Deaths: Malignant Neoplasms, 2003

% Deaths - Malignant Neoplasms

- 28.2 to 29.5
- 27.3 to 28.2
- 26.3 to 27.3
- 25.5 to 26.3
- 23.5 to 25.5
- 20.9 to 23.5



% Deaths - Malignant Neoplasms 2003

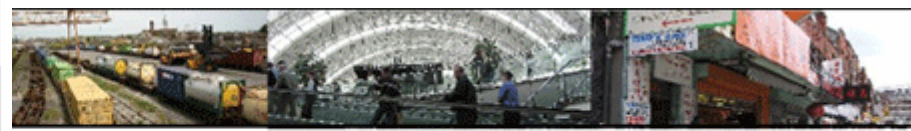
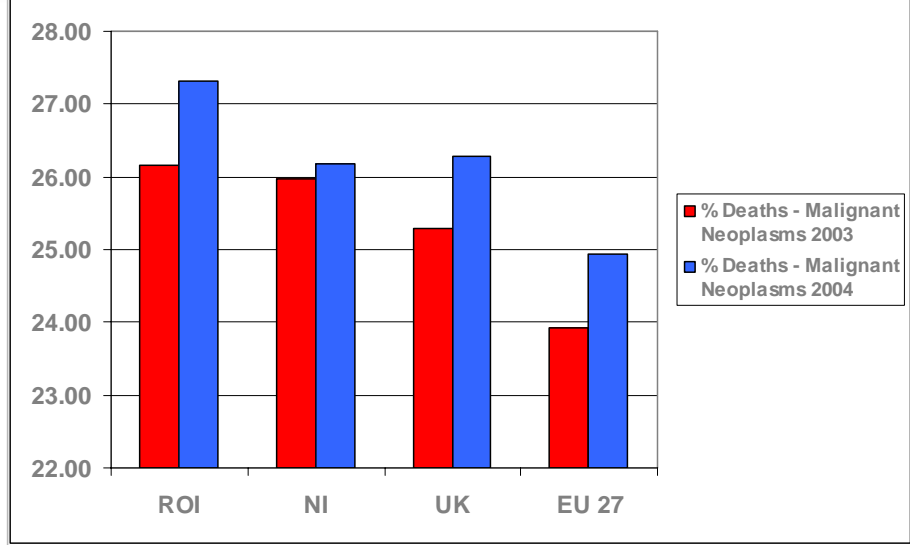
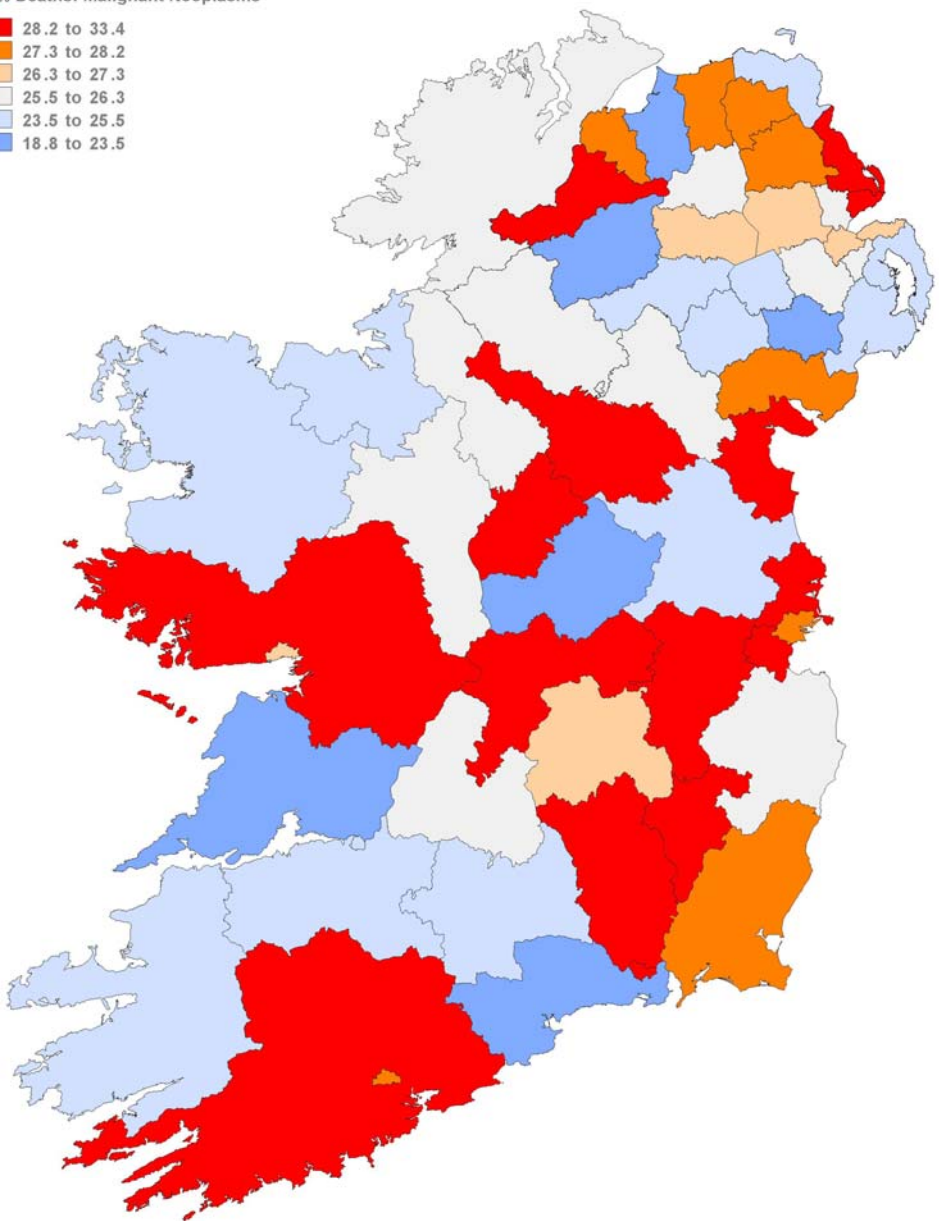


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% of All Deaths: Malignant Neoplasms, 2004

% Deaths: Malignant Neoplasms

- 28.2 to 33.4
- 27.3 to 28.2
- 26.3 to 27.3
- 25.5 to 26.3
- 23.5 to 25.5
- 18.8 to 23.5

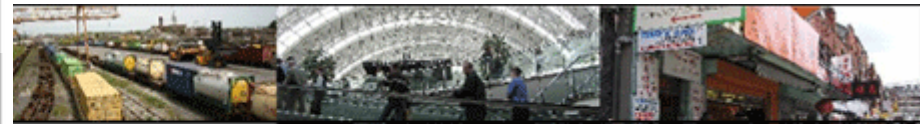
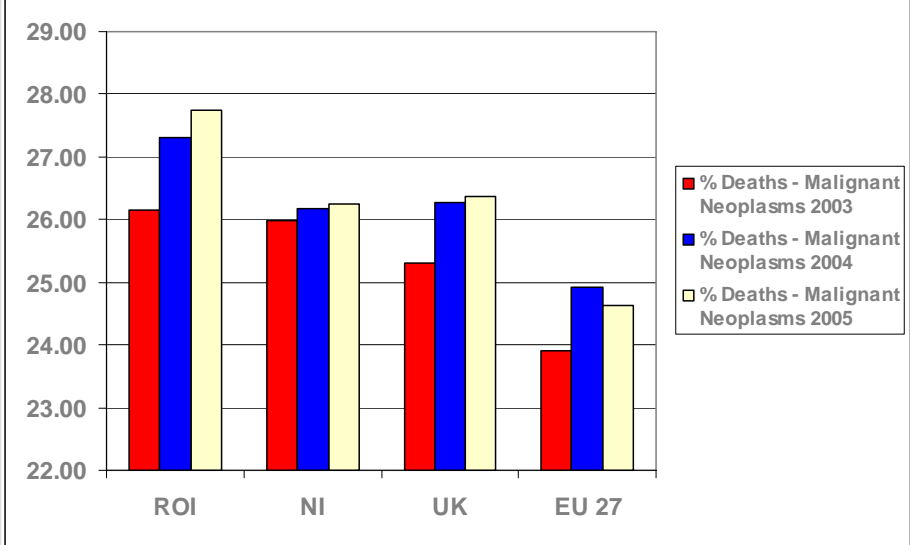
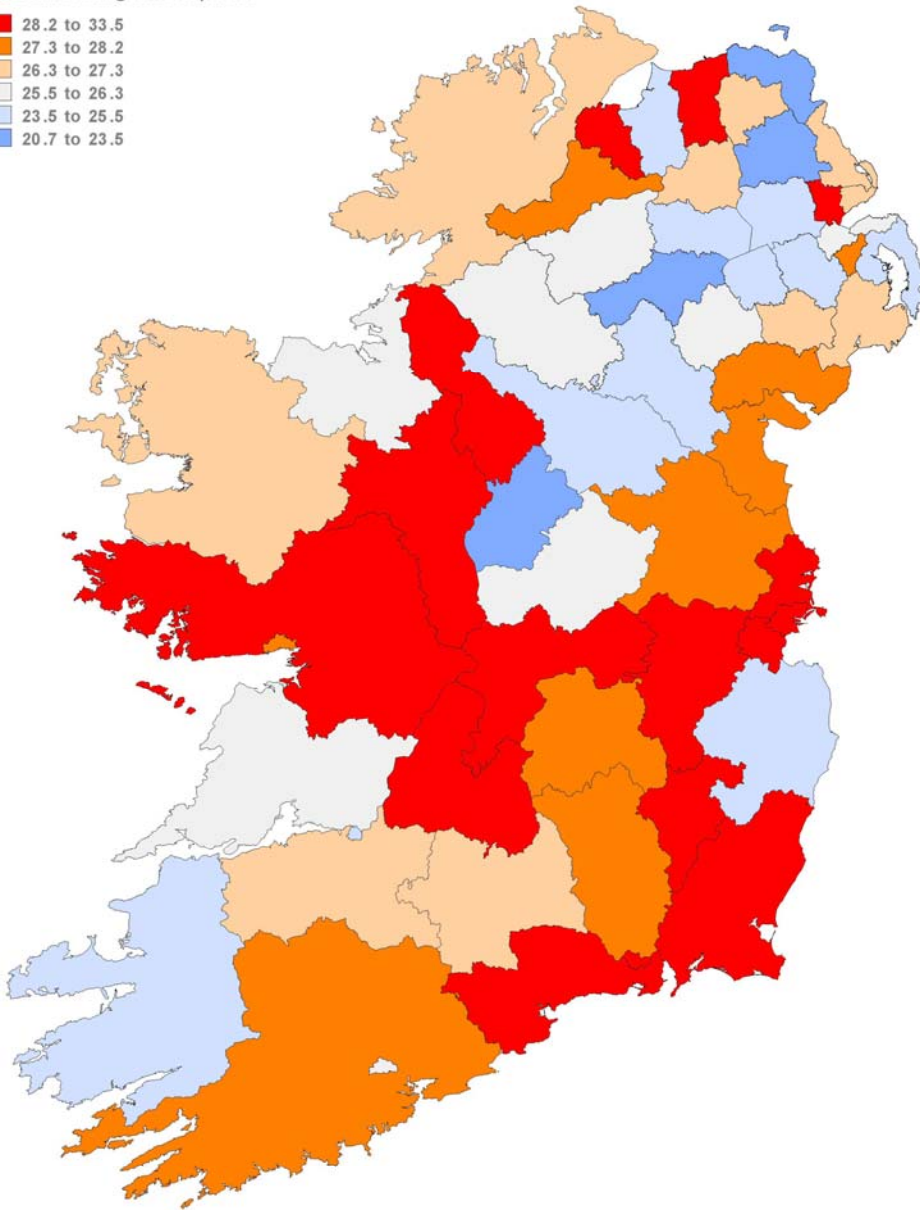


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% Deaths: Malignant Neoplasms

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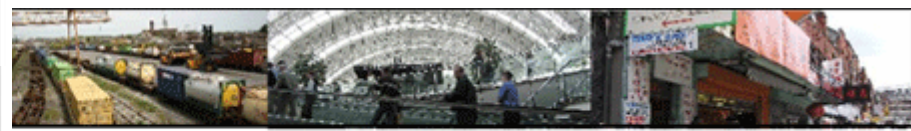
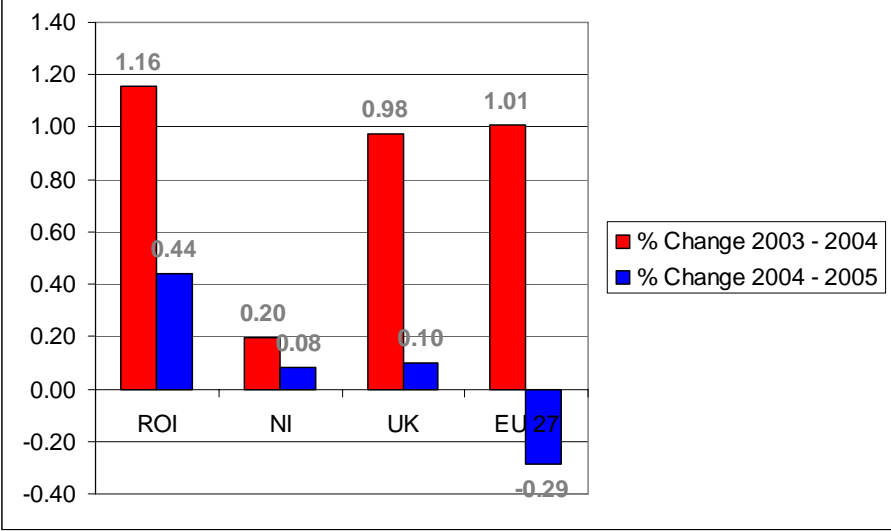
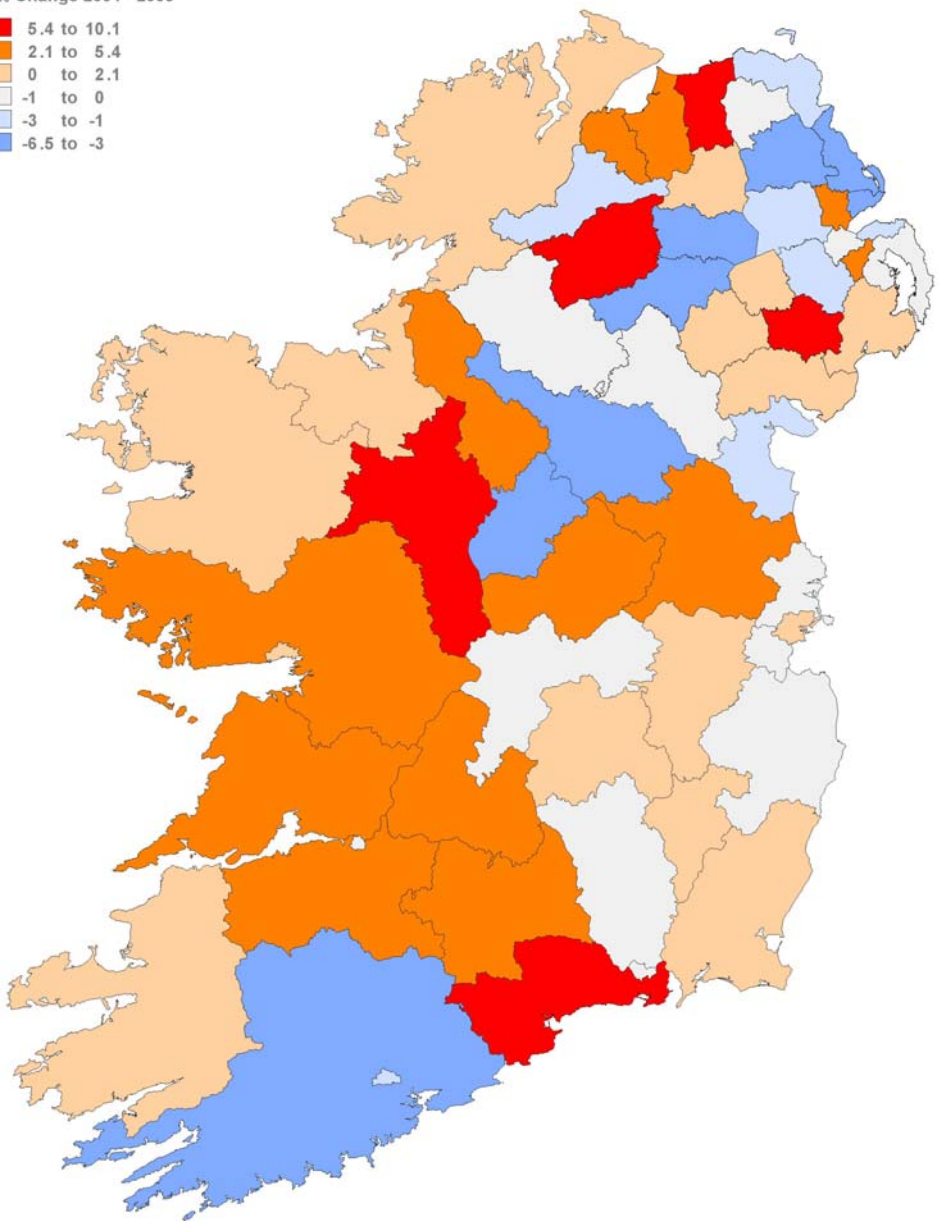


Best practices in spatial planning and economic development.

% of All Deaths: Malignant Neoplasms, % change 2004 - 2005

% Change 2004 - 2005

- 5.4 to 10.1
- 2.1 to 5.4
- 0 to 2.1
- -1 to 0
- -3 to -1
- -6.5 to -3



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Conclusions

- Developing common indicators for cross-border planning is a large task
 - Involves detailed comparison of a multitude of different data sets
 - Plus, there are a number of technical issues involved relating to questions, units, time, scale, etc.
- Our priority indicators provide a starting point
- Next steps
 - Further discussion of the selected indicators
 - Continue with a list of secondary indicators (including communication with data creators)
 - Continue to explore technical issues and modes of output and dissemination

- Chris.vanEgeraat@nuim.ie; Rob.Kitchin@nuim.ie

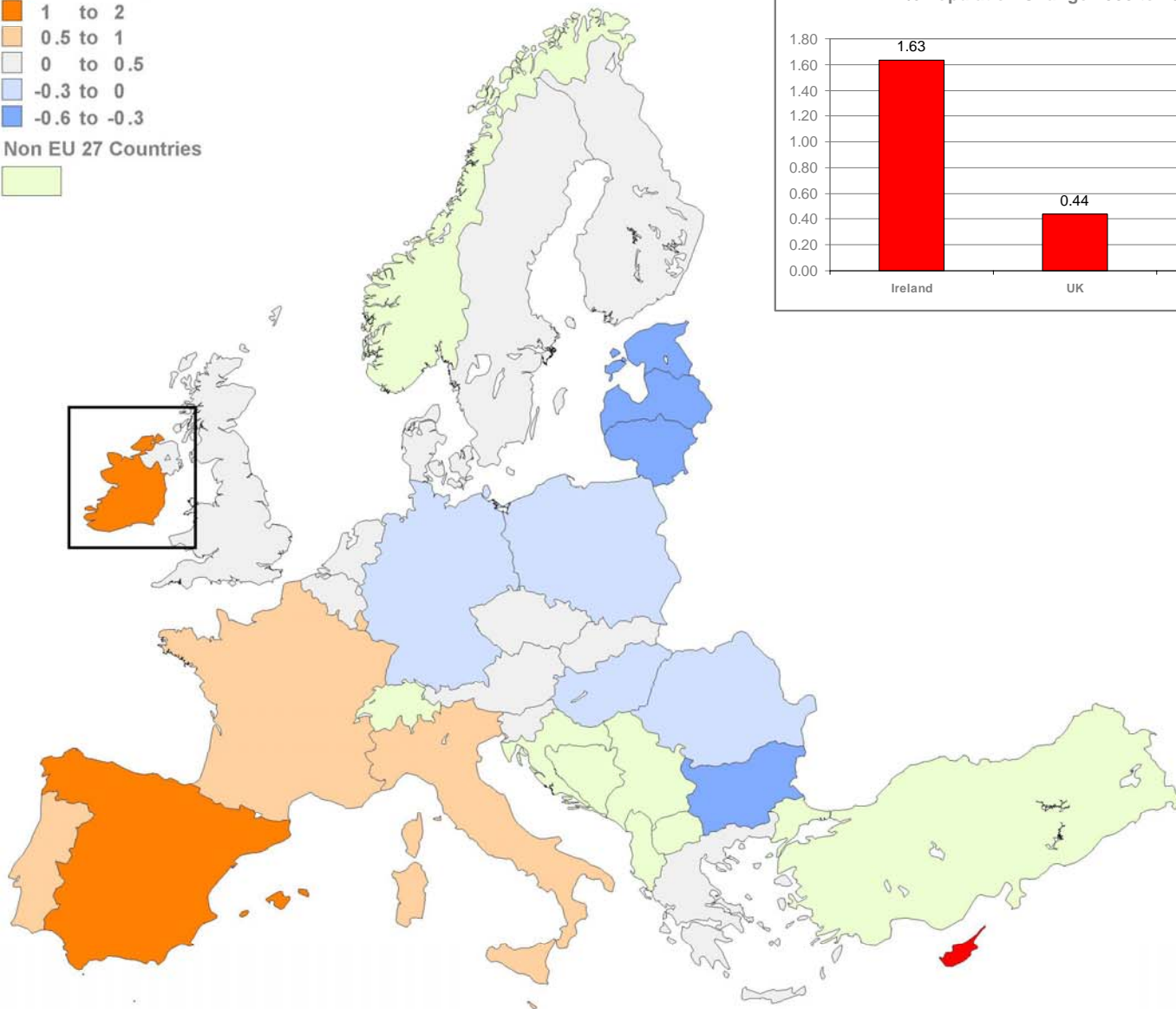
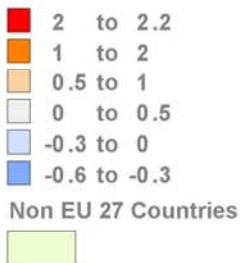


- Dependency Rate
- Number of Persons
- Number of Immigrants
- Number of Emigrants
- Third level enrolments
- Average House Price
- Number of Houses Completed - Private and Social
- Hospital beds per 100,000 population
- Death by Malignant Neoplasms/ All Deaths
- Median Weekly earnings for all full time employee jobs
- GVA per head of population
- Unemployment Rate: number of people unemployed 16+
- Number of People in the Labour Force
- Number of Overseas visitors - staying visitors
- Average Disposable Income
- Number of new vehicles licensed
- Tonnage of Freight Traffic
- Broadband penetration - subscribers per 100 population
- The number of days where air quality objectives and EU limit values are exceeded
- The total controlled waste collected per household



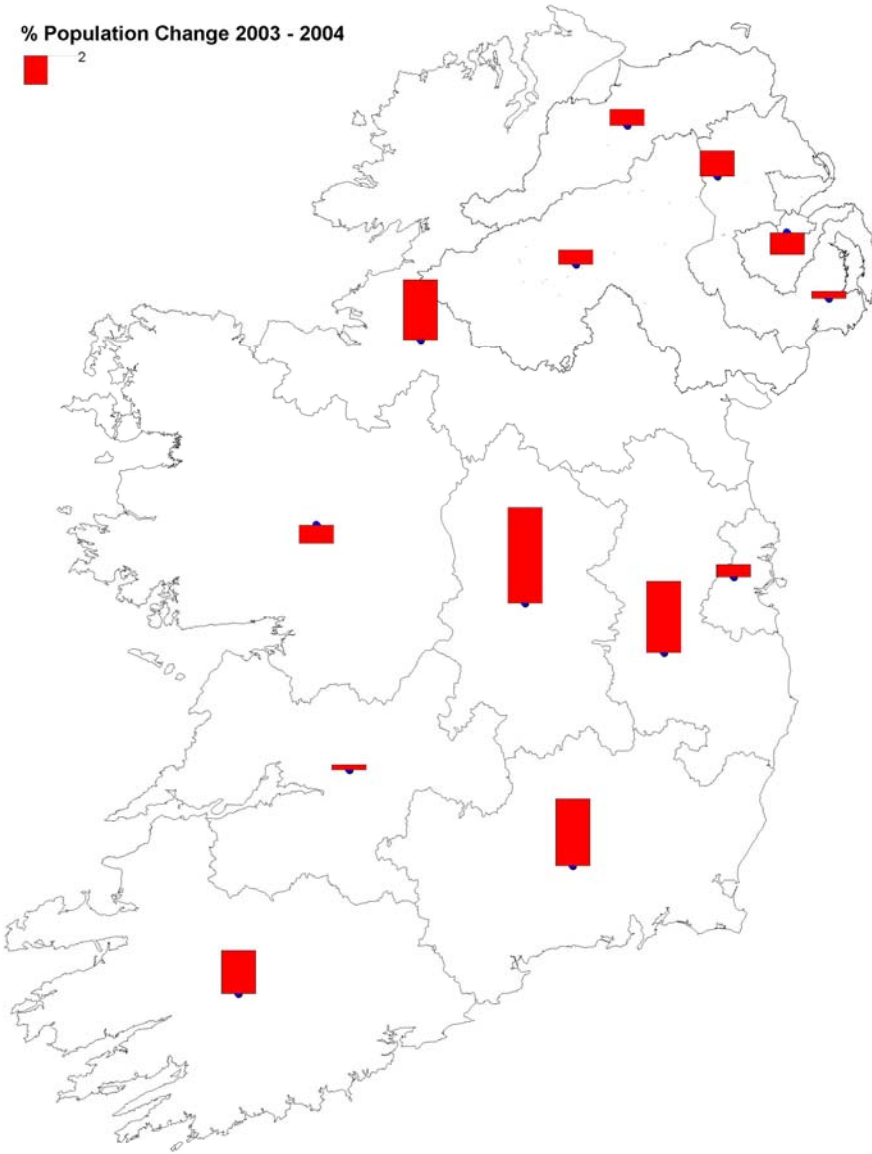
Population Change within EU 27: 2003 to 2004

Source: Eurostat

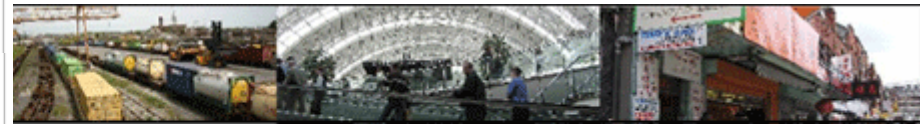
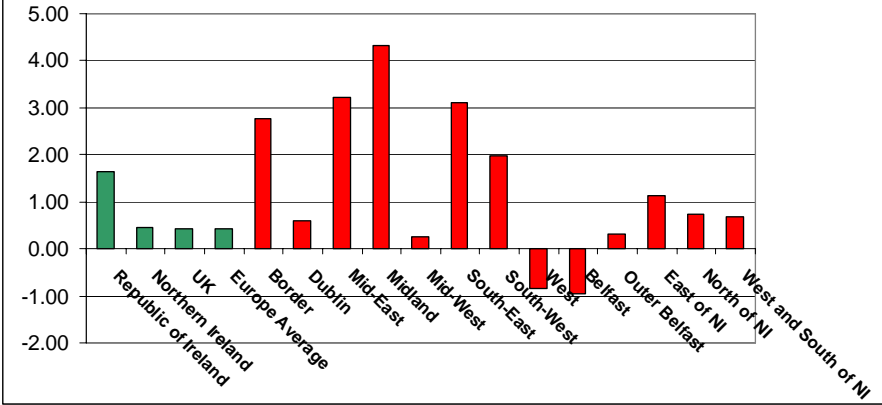


Percentage Population Change, 2003 - 2004

% Population Change 2003 - 2004



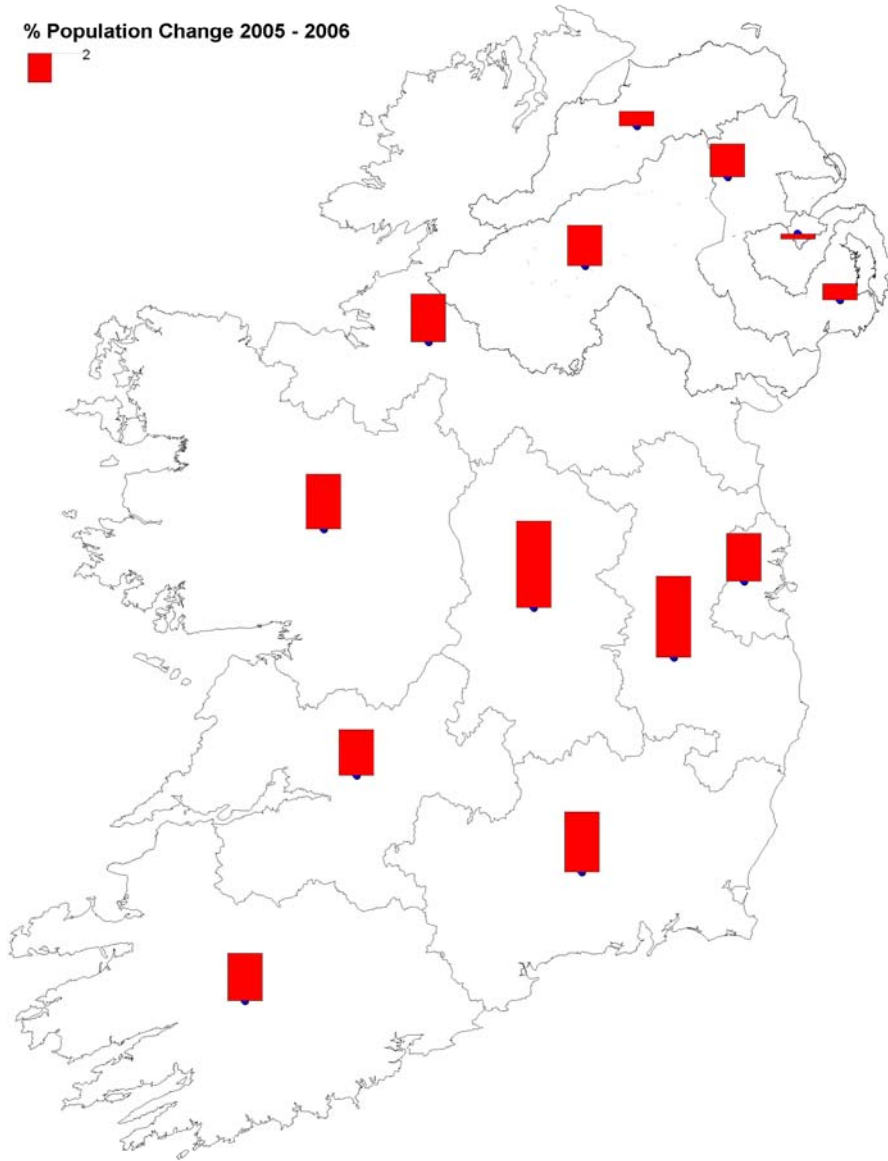
% Population Change 2003 - 2004



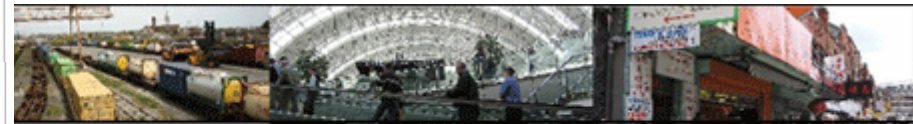
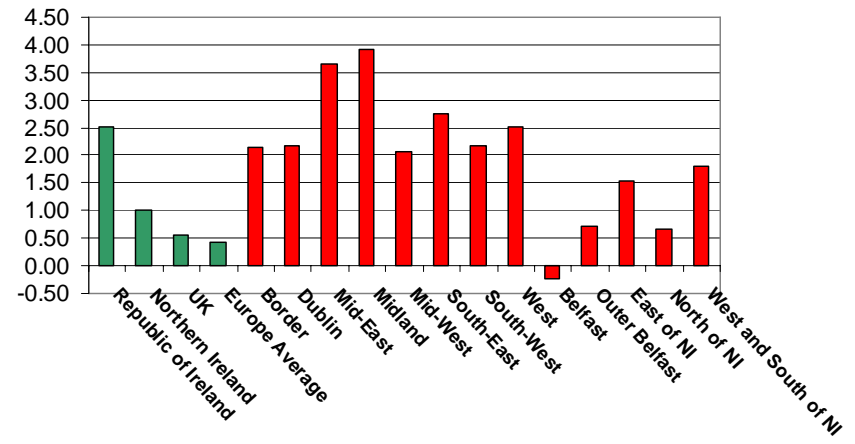
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Percentage Population Change, 2005 - 2006

% Population Change 2005 - 2006



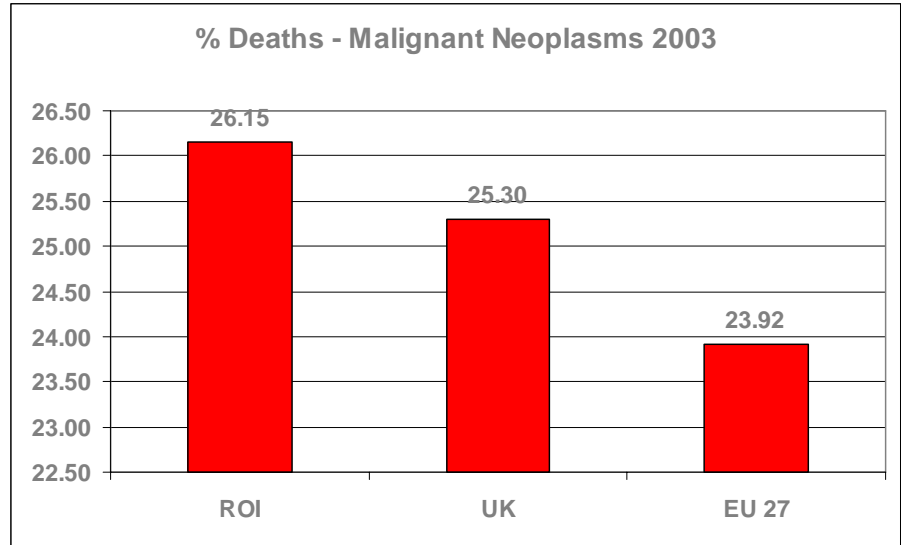
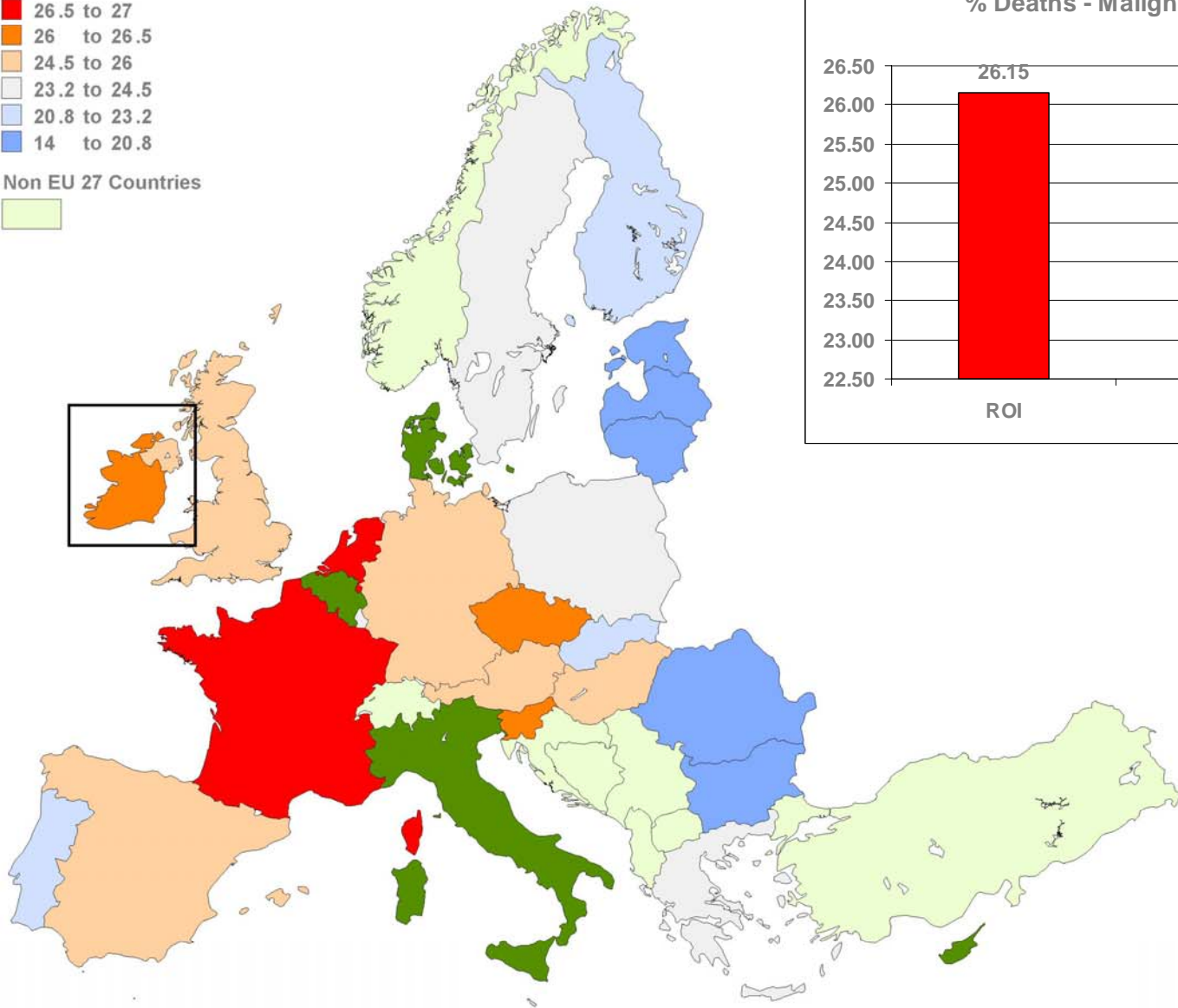
% Population Change 2005 - 2006



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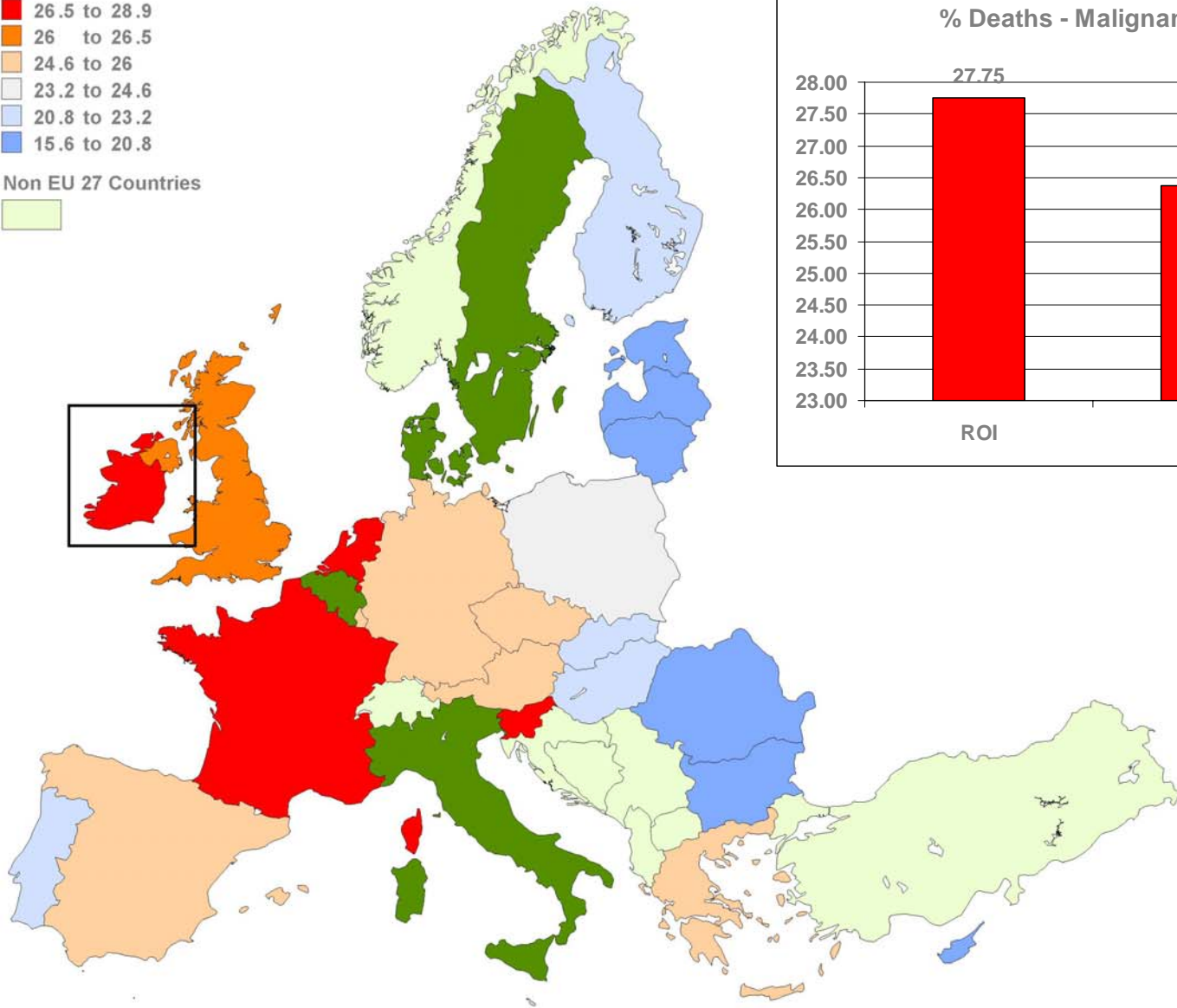
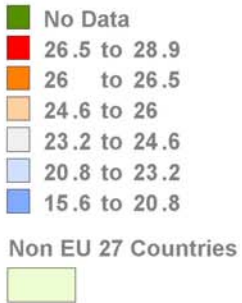
% Of All Deaths: Malignant Neoplasms, 2003

Source: Eurostat

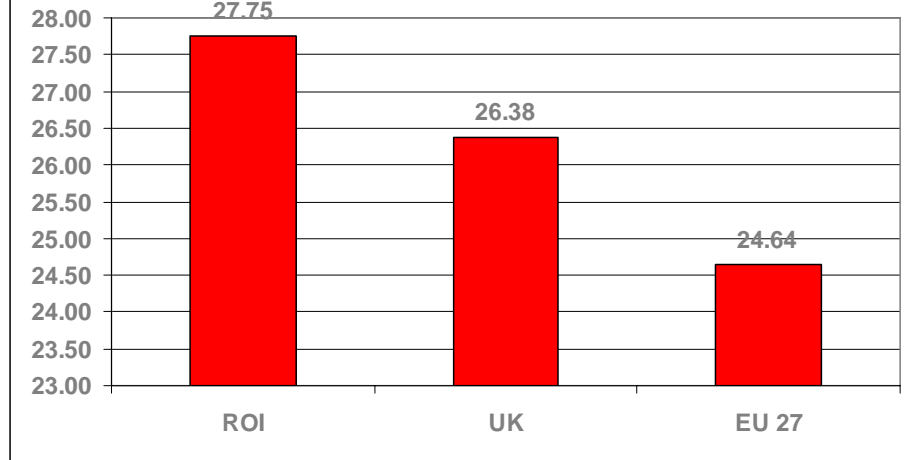


% Of All Deaths: Malignant Neoplasms, 2005

Source: Eurostat



% Deaths - Malignant Neoplasms 2005

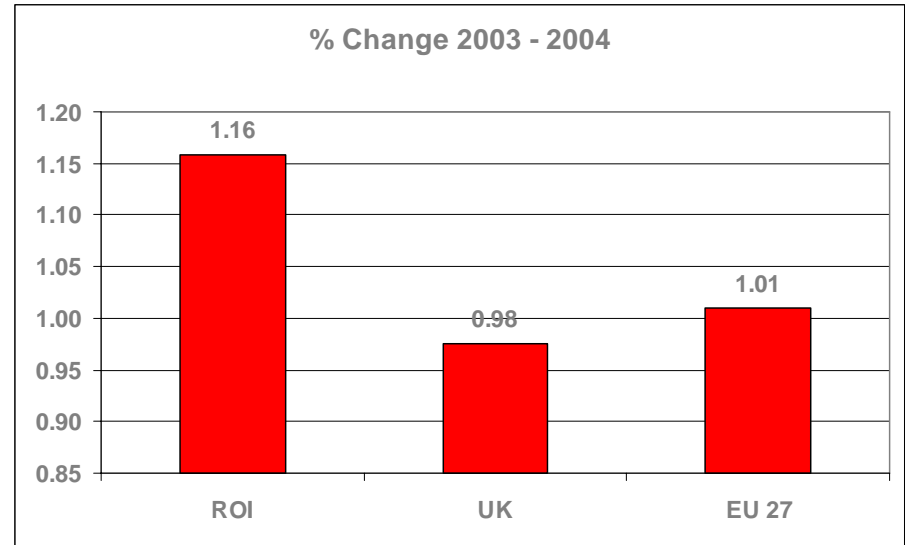
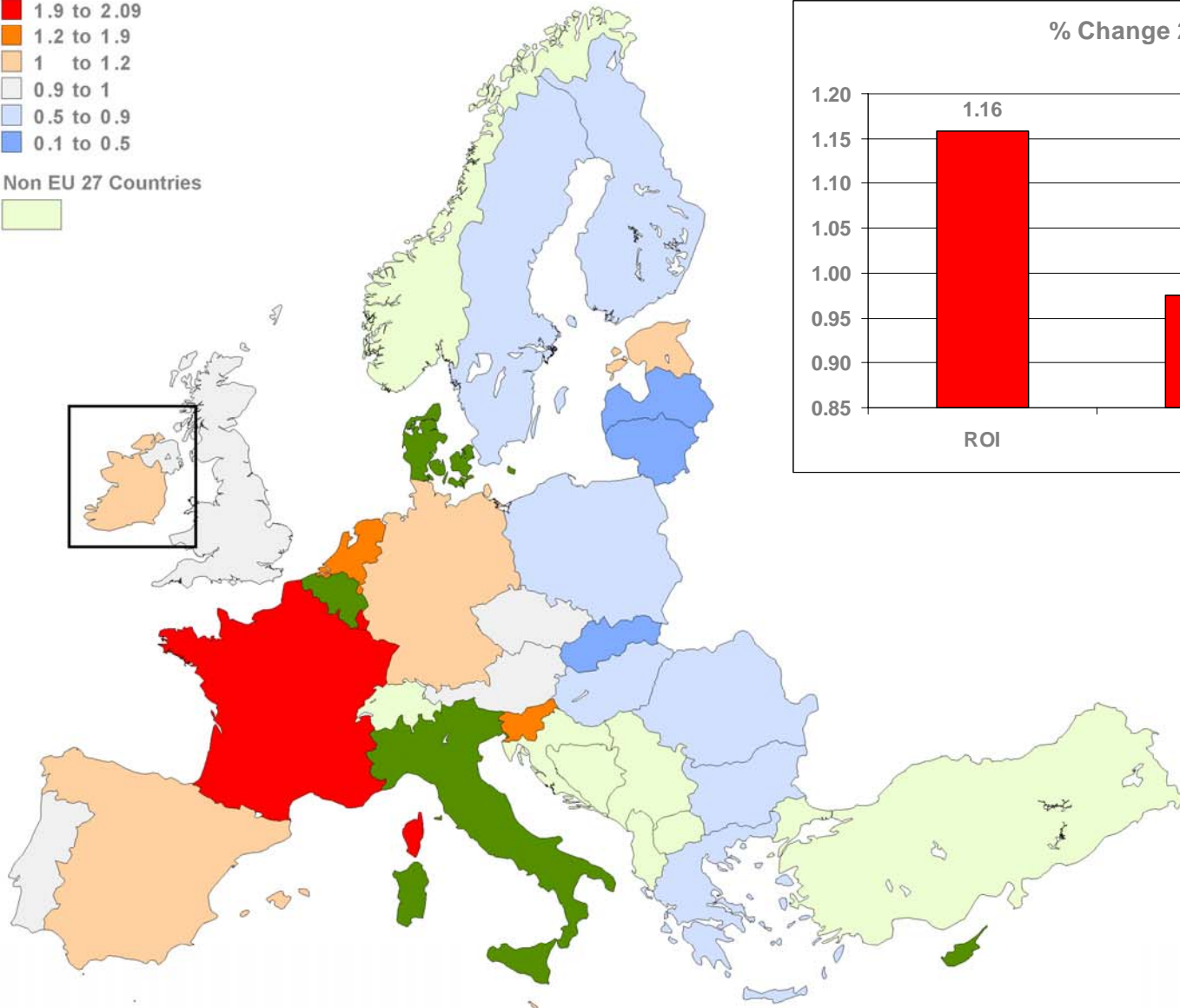


% Of All Deaths: Malignant Neoplasms, Change 2003 - 04

Source: Eurostat

- No Data
- 1.9 to 2.09
- 1.2 to 1.9
- 1 to 1.2
- 0.9 to 1
- 0.5 to 0.9
- 0.1 to 0.5

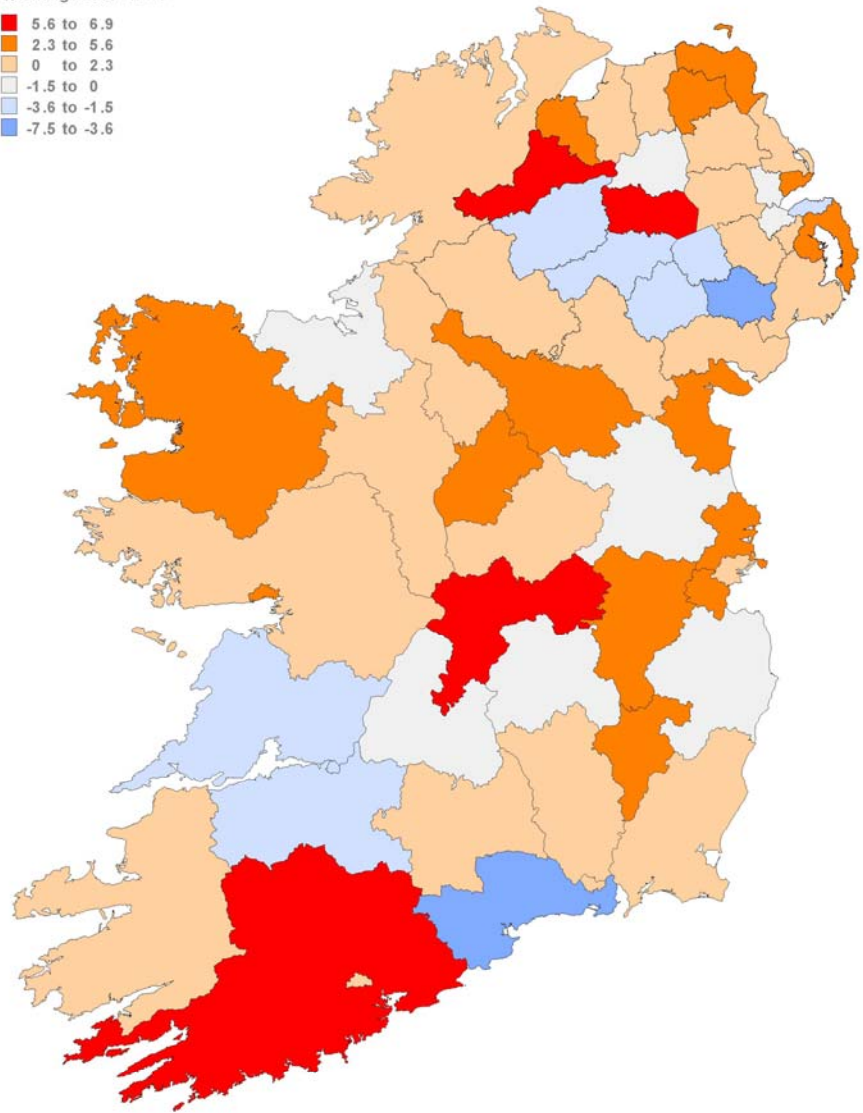
Non EU 27 Countries



% of All Deaths: Malignant Neoplasms, % change 2003 - 2004

% Change 2003 - 2004

- 5.6 to 6.9
- 2.3 to 5.6
- 0 to 2.3
- -1.5 to 0
- -3.6 to -1.5
- -7.5 to -3.6



% Change 2003 - 2004

