



PBL Netherlands Environmental
Assessment Agency

Use of (geo)data for policy assessments and outlooks

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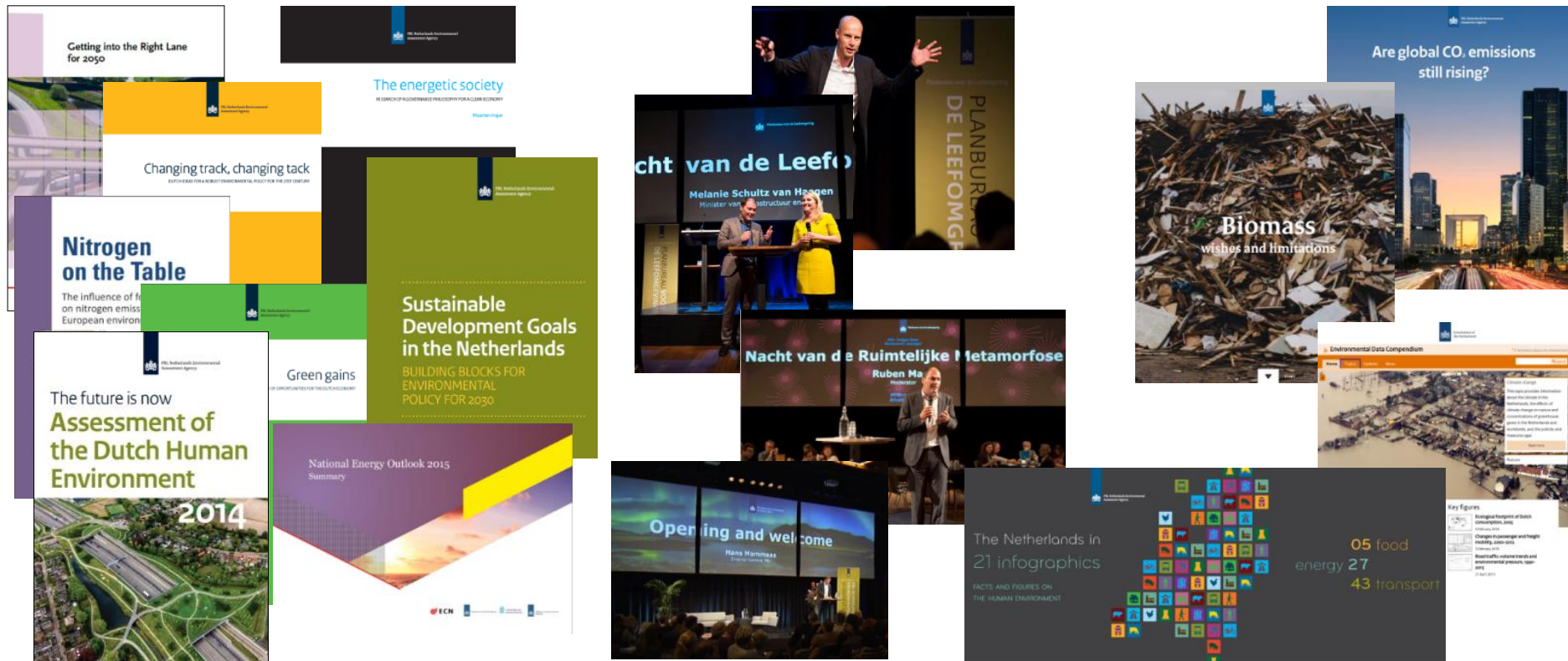
May 9th, 2017 | Leuven



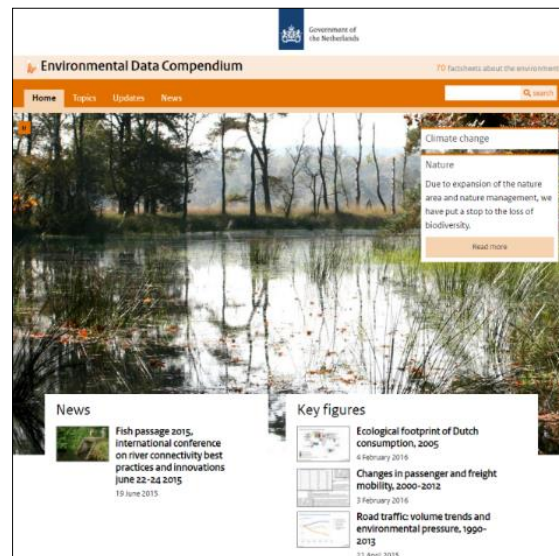
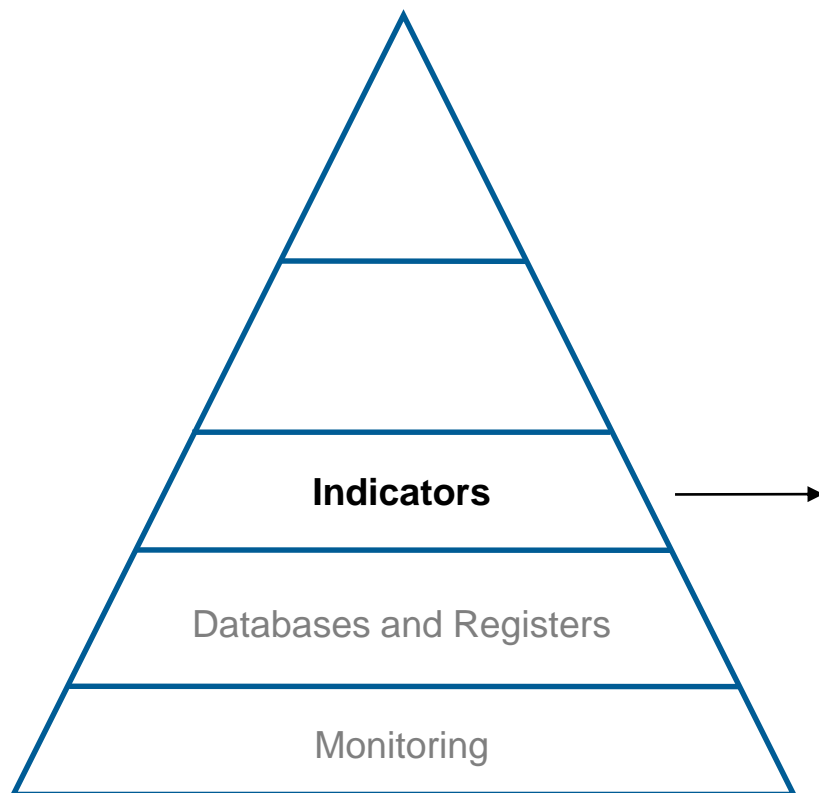
PBL Netherlands Environmental Assessment Agency

The national institute for strategic policy analysis in the fields
of the environment, nature and spatial planning





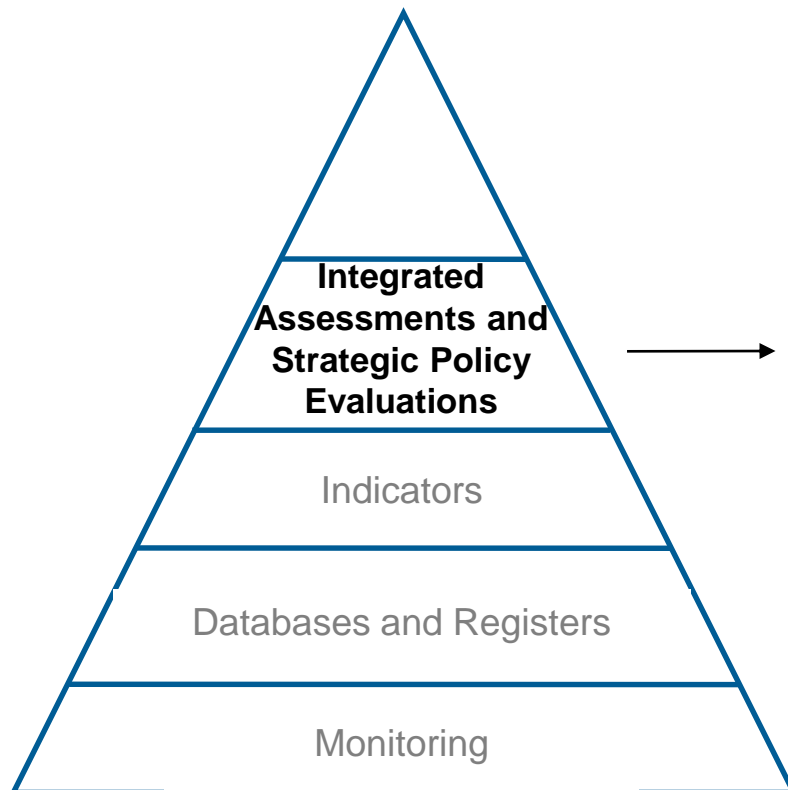
PBL



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Monitoring data are a
corner stone for PBL's
assessments, policy
evaluations and outlooks

PBL itself is no operator
of monitoring networks
or a key register owner



Balans van de Leefomgeving 2014

Home Thema's Download het rapport Over de Balans

Waterveiligheid

Download het rapport: Waterkwaliteit en -veiligheid (PDF, 3 MB)

Transitie in het waterveiligheidsbeleid vergroot interactie met regio en samenleving

In het waterveiligheidsbeleid is een transitie gaande van een beleid uitsluitend gericht op het voorkomen van overstromingen naar een beleid dat zich ook richt op het beperken van de gevolgen van een overstroming (aantal slachtoffers en maatschappelijke ontwrichting). De interactie met andere overheden en actoren neemt hierdoor sterk toe op het gebied van de ruimtelijke ontwikkeling en de rampenbestrijding. Ook de interactie met de burger en het vergroten van de handelingsopties bij een overstroming krijgen een grotere aandacht. Dit kan het bewustzijn over en de kennis van de overstromingsrisico's sterk verbeteren.

Veel dijken, stuwen, sluisen en stormvloedkeringen onvoldoende veilig

Nieuwe normen: kans op overstroming neemt af en doelmatigheid investeringen in preventie neemt toe

Aandacht voor beperken gevolgen: concretiseringslag nodig

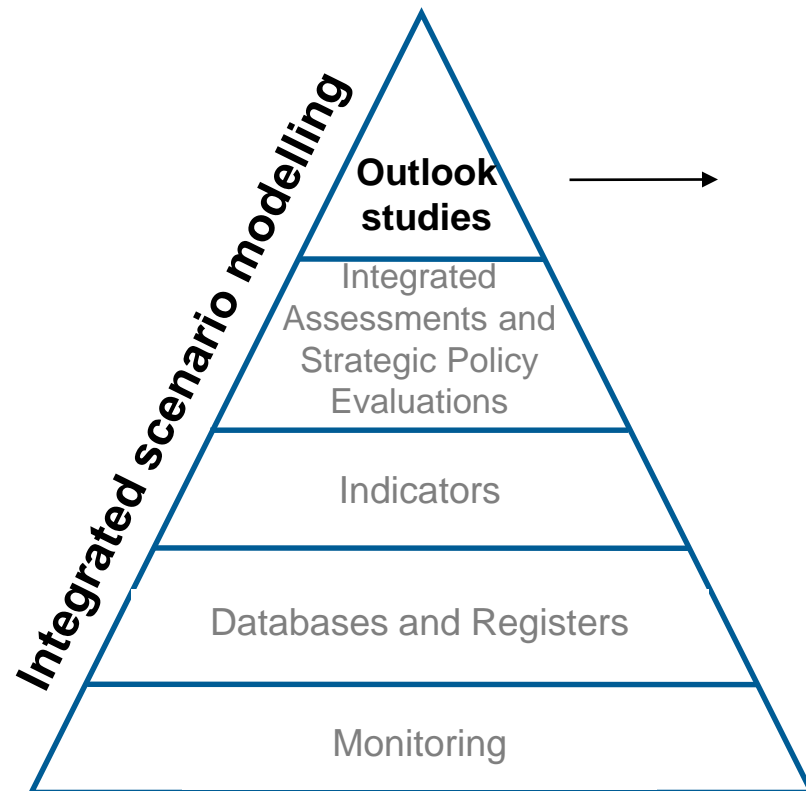
In de Balans voor de Leefomgeving analyseert PBL hoe in Nederland wordt omgegaan met water, een belangrijke factor voor Nederland als een veilige, leefbare en welvarende Delta, zie [WatStaatInHetLand: veiligheid \(2014, 3 MB\)](#). Het gaat daarbij om beleid, doelwerk en sturing van de bescherming tegen overstromingen en de aanwezigheid van voldoende water van goede kwaliteit (zie [WatStaatInHetLand](#)) om te gebruiken door mens en natuur.

Evaluatie van het waterbeleid

Onderstaande tabel vat de voortgang samen ten aanzien van de doelen gericht op het verbeteren van de waterveiligheid.

Waterkwaliteit	Balans 2012	Balans 2014	Toelichting
Waterkwaliteit en zoetwatervoorziening 2015	●	●	In normale en in droge jaren kunnen de meeste gebruikers van voldoende water worden voorzien.
Waterveiligheid	■	●	Het beschermingsniveau voor waterveiligheid is niet op het gewenste peil. In het Deltaprogramma wordt nieuw veiligheidsbeleid ontwikkeld.

Klik hier voor de legenda



Data requirements – EU/Global

- Frequent (update once a year)
- Policy relevant
- Detail/scale fit for purpose
- Known quality – metadata
- Harmonized and seamless
- Time series
- Easy access
- Local copy of dataservices
- Access to historical dataversions
- Open – free for sharing

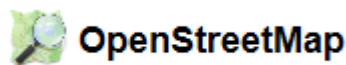




EU/Global data sources



Europees Milieu Agentschap



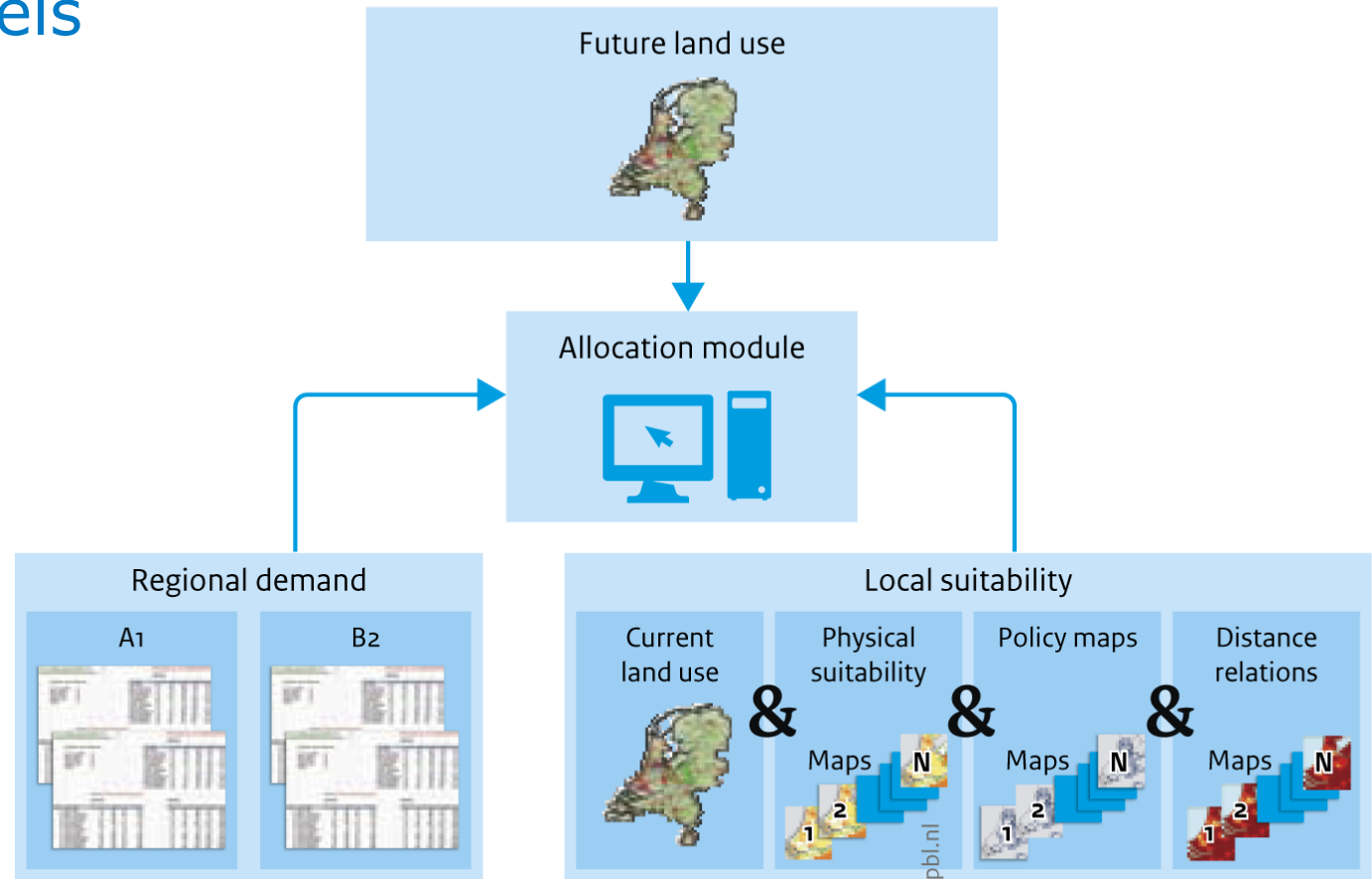
Global Trade Analysis Project



INTERNATIONAL ROAD FEDERATION
FEDERATION ROUTIERE INTERNATIONALE

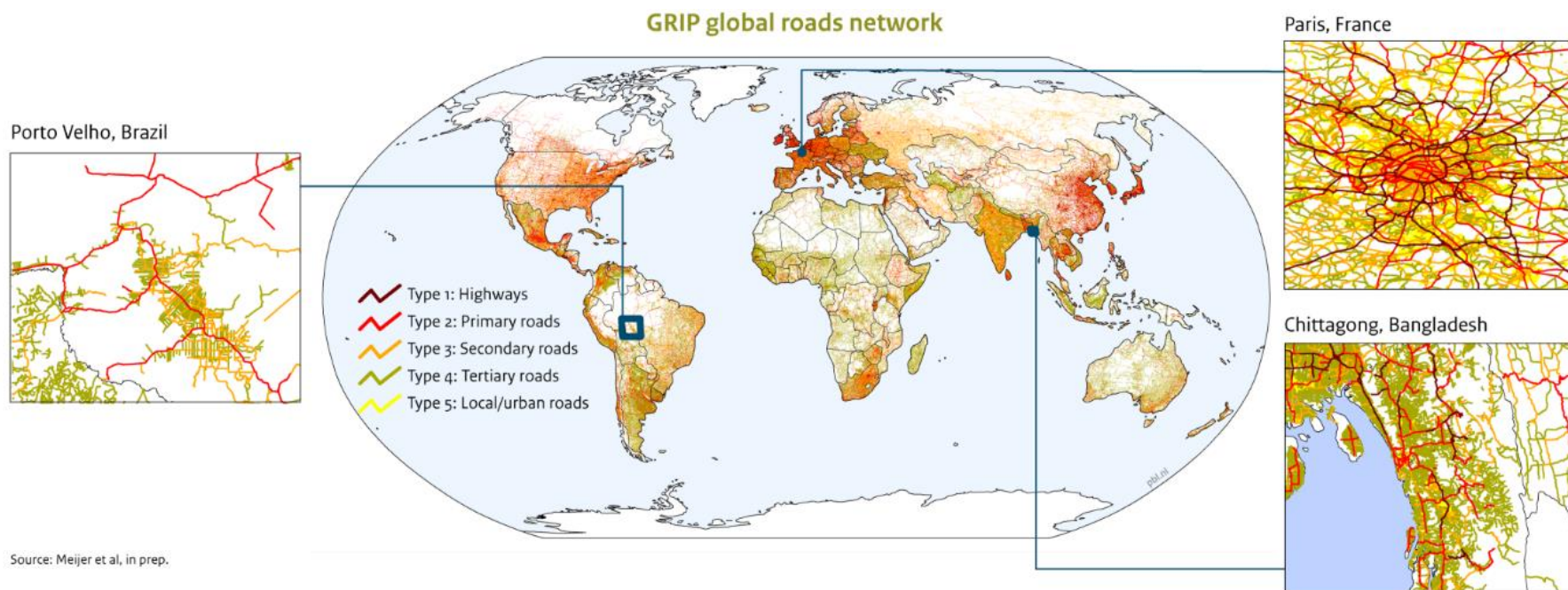
Improving spatial models

Land Use Scanner



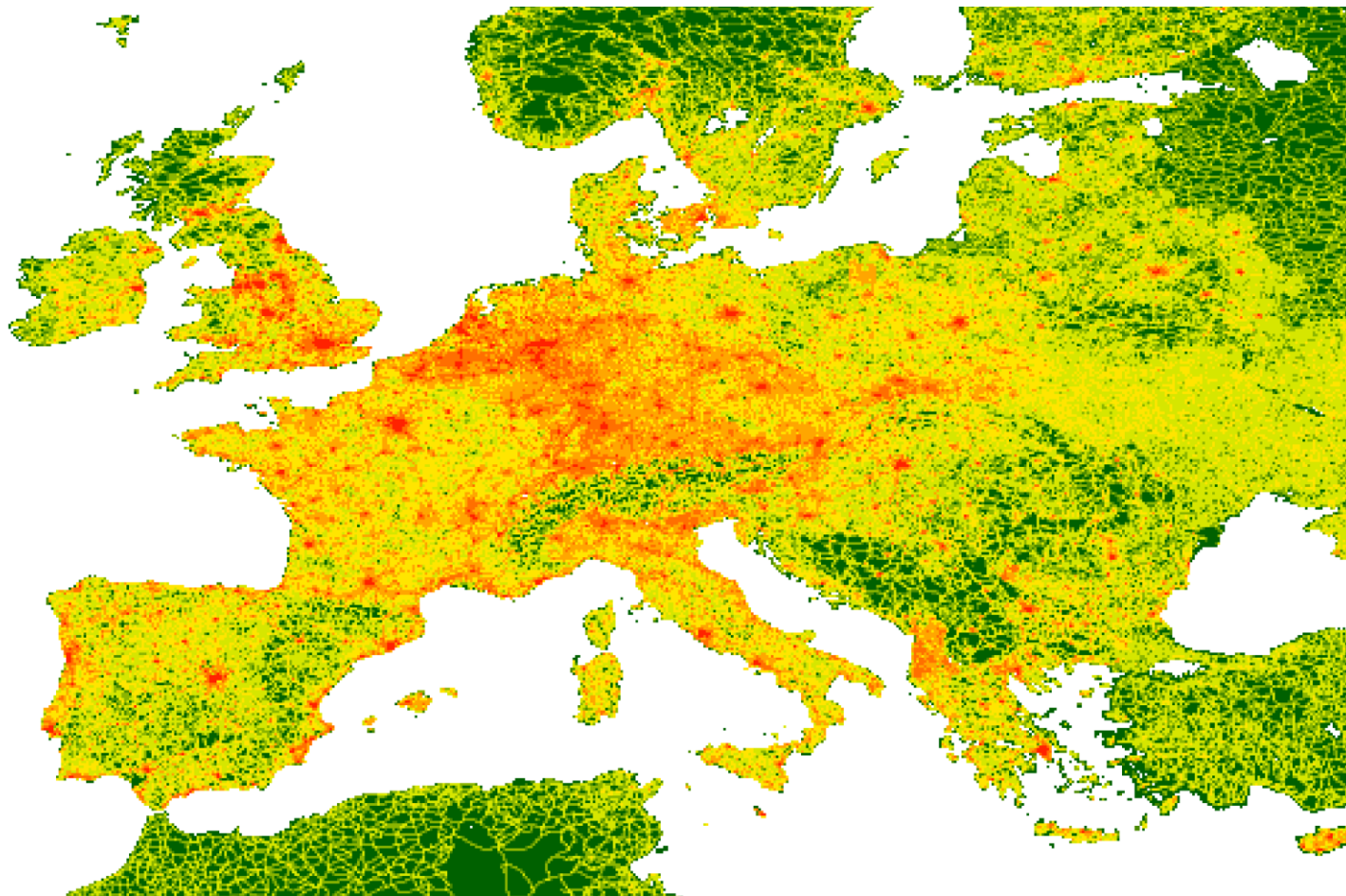
Source: PBL 2009

Improving spatial models - 2



GRIP Global Roads database is built on data from governments, NGOs, crowdsourcing initiatives and the United Nations

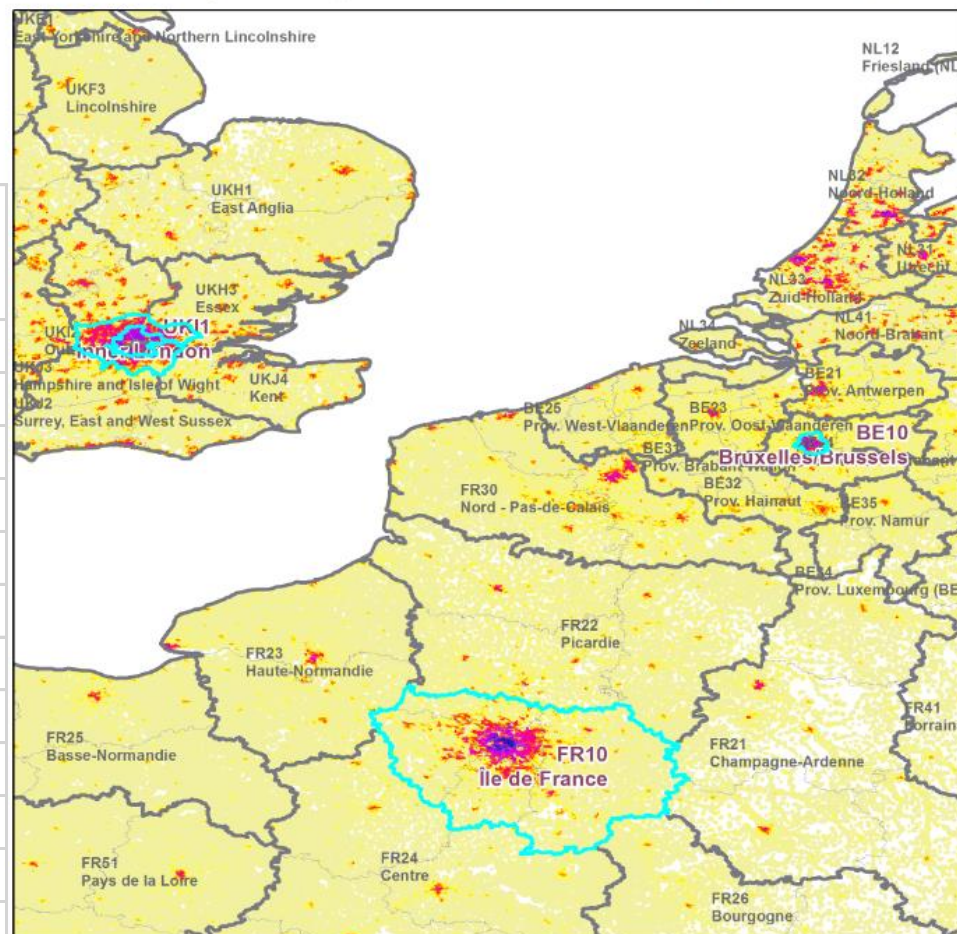
GRIP Densities



Do's and don'ts of population density determination

		Population density (inh/km2)	Weighted by NUT3 (inh/km2)
Paris			
	Île de France	NUTS1	995
	Île de France	NUTS2	995
	Paris	NUTS3	21262
Bruxelles			
	Hoofdstedelijk Gewest	NUTS1	7296
	Hoofdstedelijk Gewest	NUTS2	7296
	Arr. van Brussel-Hoofdstad	NUTS3	7296
London			
	London	NUTS1	5244
	Inner London	NUTS2	10096
	Inner London - West	NUTS3_1	9891
	Inner London - East	NUTS3_2	10206

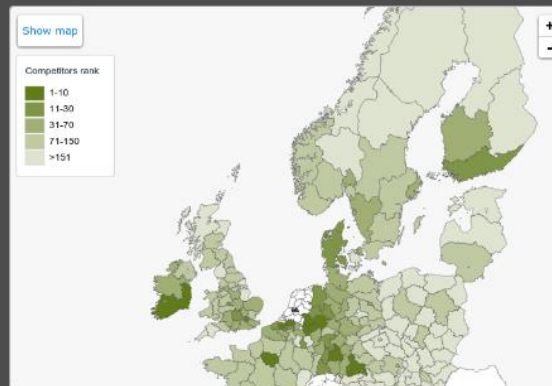
FR10; Ile de France (Greater Paris) vs. BE10 Bruxelles or UK11 Inner London and UK12 Outer London



European Regional Competitiveness Scoreboard

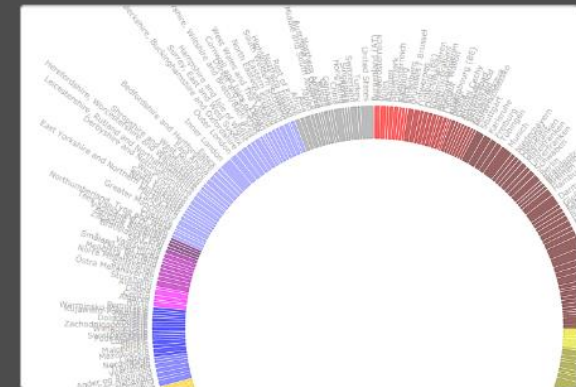
Powerful tool for analyzing a region's competitive position and its position in global economic networks using a visualization of actual regional data

Visualisations



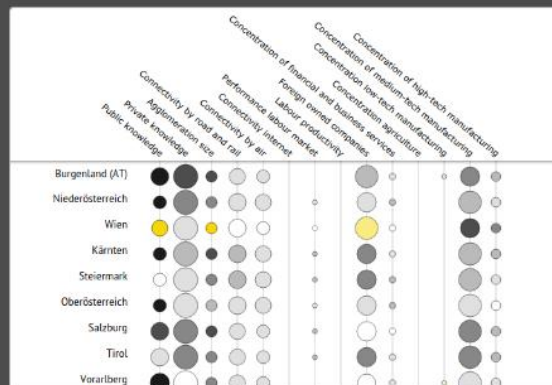
Competitiveness scoreboard

The "Competitiveness scoreboard" is the main visualization where all information is combined. It consists of 4 visualizations where data on the competitive position of firms in European regions can be found.



Exports and Imports

In this window, trade between 256 European regions and between those regions and the rest of the world is presented. These sector specific data is visualized by means of a circle which is subdivided into pieces (segments) representing the regions and lines which connect those segments and represent the trade flows.



Competitiveness Scores



Trade Network Scores

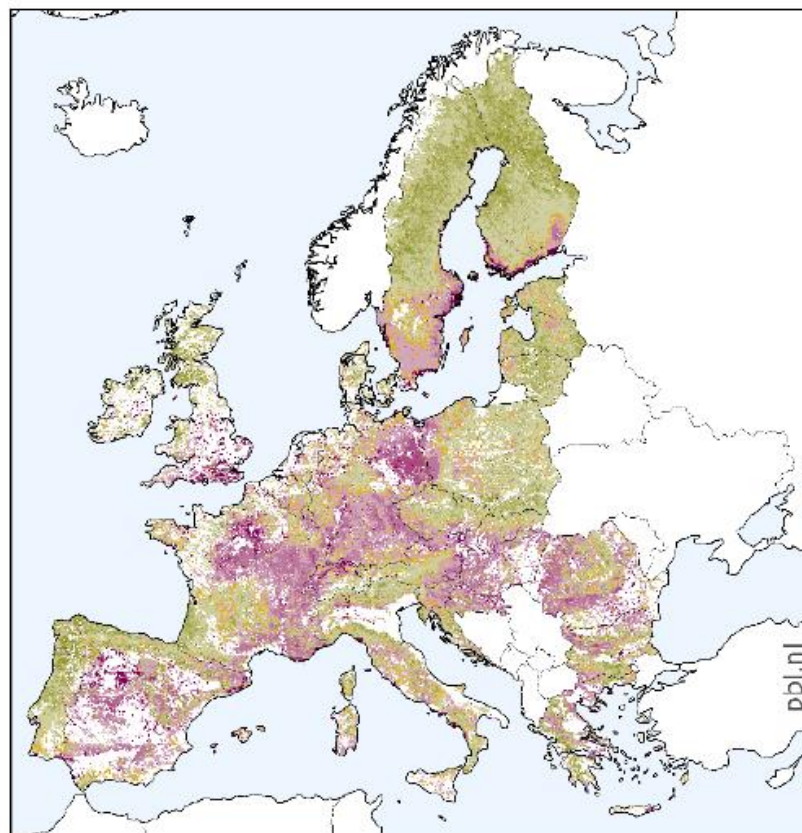
<http://themasites.pbl.nl/eu-trade>

Bioscore 2.0 model

Relative change in ecosystem quality, for a given scenario

Forest

Supports the analysis of potential impacts of future changes in human-induced pressures on European terrestrial biodiversity

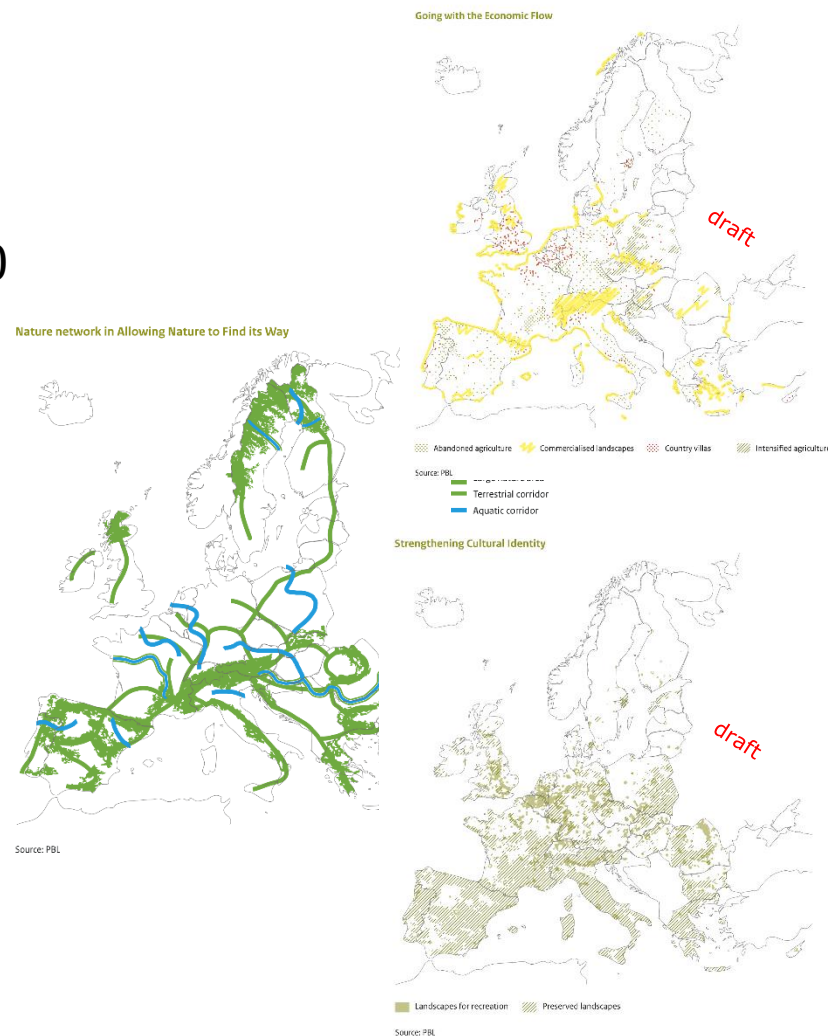


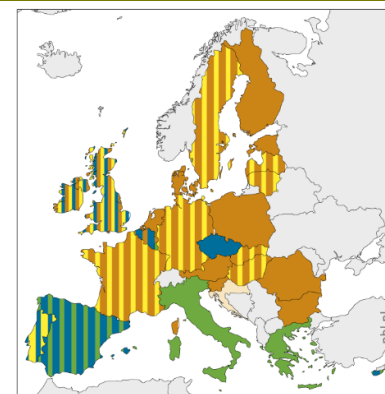
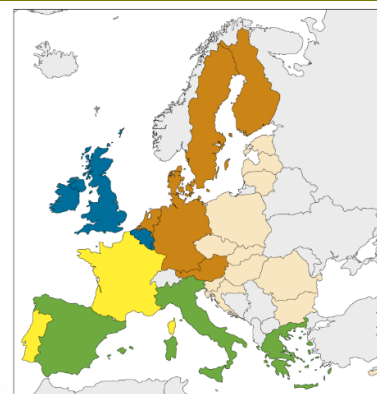
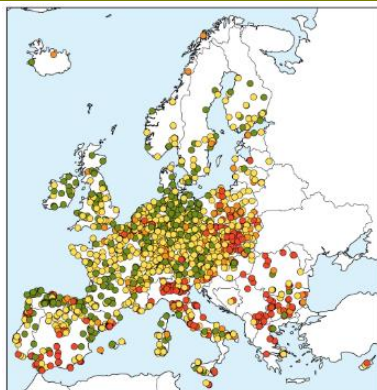
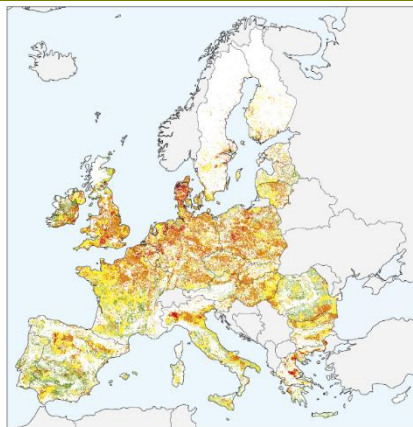
Nature Outlook 2016

Four 'perspectives' on nature in 2050

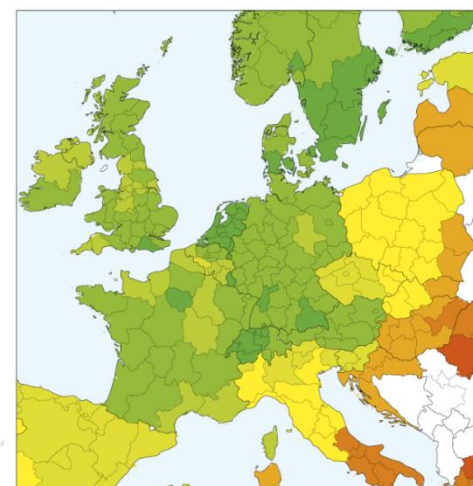
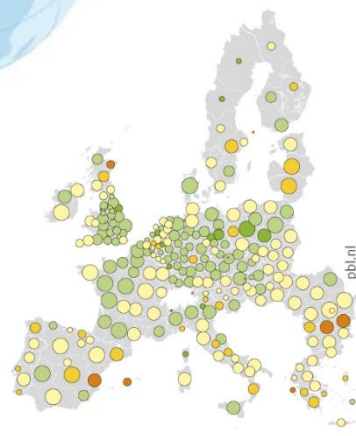
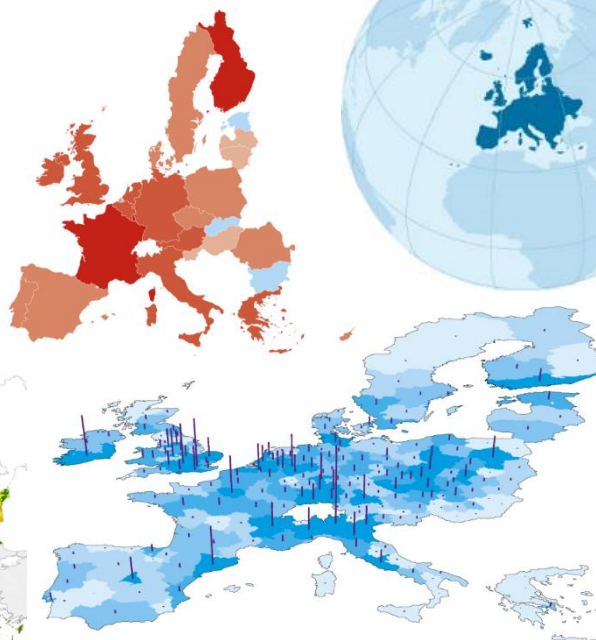
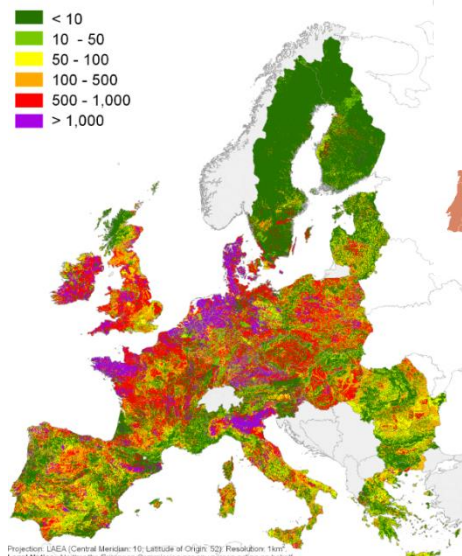
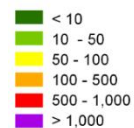
Objective: to provide inspiration for
the strategic debate on nature

Approach: to involve stakeholders
and use models





Total NH₃ emissions [kg N km⁻²yr⁻¹]



Projection: LAEA (Central Meridian: 10; Latitude of Origin: 52); Resolution: 1km
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Growth and decline in metropolitan areas

Changes in the size of the population in cities are the result of natural processes (births and deaths) and migration. In most European metropolitan areas, the population is growing. Cities in Europe are also becoming more culturally and ethnically diverse, as a result of the free movement of citizens within the European Union and the influx of migrants and asylum seekers from non-EU countries. Most EU cities saw an increase in the share of non-national inhabitants in recent decades.

In the 2000–2010 period, the strongest population growth took place in London, Madrid and Paris. But also Dublin, Toulouse, Oslo and metropolitan areas in Spain gained in population. However, not all metropolitan areas have been growing. In the same period, population numbers in Athens, Tallinn, Genova and a number of cities in Poland and Germany declined.

How are metropolitan areas defined?

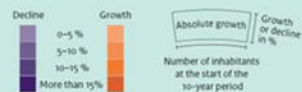
The OECD database contains detailed data on 114 metropolitan areas in Europe. According to the OECD definition, metropolitan areas are urban areas with more than 500,000 inhabitants. The OECD, in cooperation with the European Commission and Eurostat, has developed a harmonised definition of urban areas that overcomes previous limitations linked to administrative definitions (OECD, 2012). According to this definition, an urban area is a functional economic unit characterised by densely inhabited 'cities' with more than 50,000 inhabitants and 'commuting zones' whose labour market is highly integrated with nearby cities.



City



Commuting zone



Population change for the 114 metropolitan areas in Europe, 2000–2010

Source: OECD Metropolitan Explorer, adaptation by PBL



Metropolitan economies...

Cities are the engines of the economy. Metropolitan regions contain 59% of the EU population, but they hold 62% of its jobs and represent 67% of GDP (European Commission, 2014). The concentration of people, capital and business opportunities means that cities are more productive than other places. It is therefore not surprising that cities figure prominently in the EU strategy for jobs and growth. The Urban Agenda for the EU, in particular, aims to ensure maximum utilisation of the growth potential of cities.

2000–2010 period, a north–south divide could be seen, with northern cities generally outperforming those in the south. The most significant growth, however, occurred in central and eastern European cities, particularly in Poland. Some of this difference can be attributed to a lower starting point, but also to the EU's Cohesion Policy, under which especially new recipients are eligible to receive high European subsidies.

Many of Europe's largest cities are also its most affluent. The megacities of Paris and London rank among those with the highest GDP per capita ratios of the EU, such as Munich, Stockholm and Frankfurt. Still, there is not a clear linear relationship; Helsinki is smaller than Naples, but shows a higher GDP per capita and a stronger economic growth rate. Bigger is therefore not always better. There is much more at stake, such as the national economy of the country in which they are situated. To a large extent, the geographical distribution of GDP per capita of cities reflects that of regions and countries in Europe.

Cities also differ in growth rate; just as real engines, they are running at different speeds. Again, size not necessarily matters – although Paris and London appear to perform above average – as much as geographical location. In the

Population
metropolitan area 2010



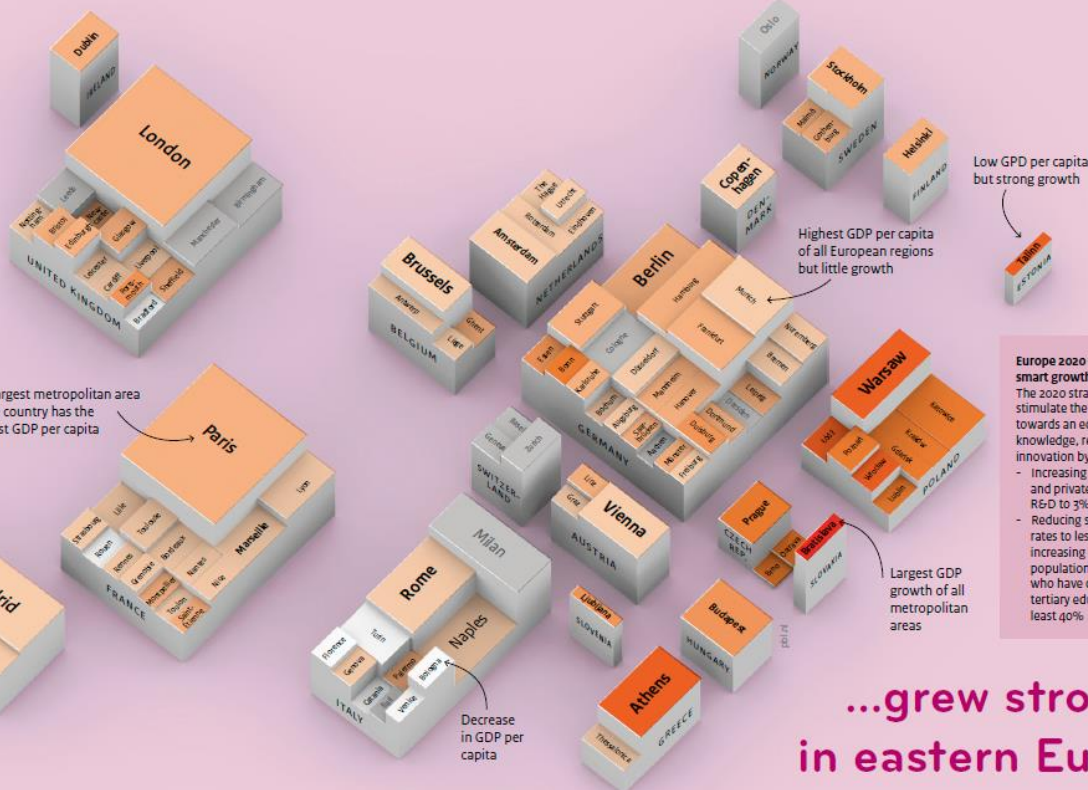
GDP per capita growth

Annual average 2000–2010

Source: OECD Metropolitan Explorer, adaptation by PBL



The largest metropolitan area of the country has the highest GDP per capita



Europe 2020 targets for smart growth

The 2020 strategy aims to stimulate the transition towards an economy based on knowledge, research and innovation by:

- Increasing combined public and private investment in R&D to 3% of GDP
- Reducing school dropout rates to less than 10% and increasing the share of the population aged 30 to 34 who have completed their tertiary education to at least 40%

...grew stronger
in eastern Europe

<http://themasites.pbl.nl/cities-in-europe/>

... and interactives



<http://infographics.pbl.nl/website/globalco2-2016/>

In conclusion

- Harmonized (geo)data is essential for pan Europe research to explore alternative futures
- Use of open data is growing in importance, bringing data into the public domain
- Data acquisition budgets are under pressure
- Top visuals like (interactive) infographics and one pagers are indispensable for successful communication
- No top without solid data at the base.



Thank you for your attention!

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