

Country fiche

Territorial patterns and relations in the Czech Republic

Smarter Europe

Greener Europe

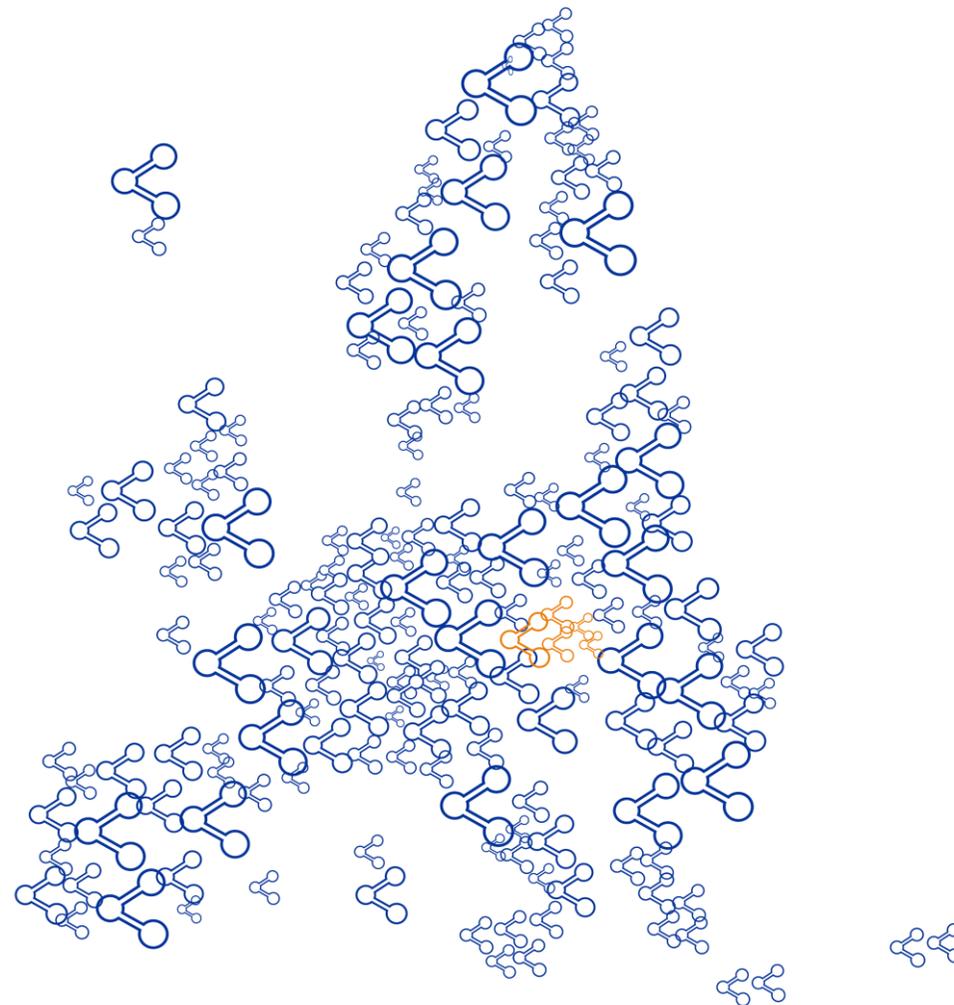
More connected Europe

More social Europe

Europe closer to citizens

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Introductory remarks

The content of the following overview is a summary of research results from different thematic applied research projects under the ESPON 2020 programme. As a consequence, most indicators and analyses are not based on most recent data but represent the data availability at the time when the research was undertaken. Only in a few cases, for some rather basic indicators that could easily be reproduced, more up-to-date information was used.

It is therefore important to note that this overview is mainly a collection of available findings with different time stamps and not an up-to-date, comprehensive analysis. Its main goal is to showcase the wide range of ESPON research and, by zooming-in on a specific country, to raise interest for the scientific results at a more national and even regional scale.



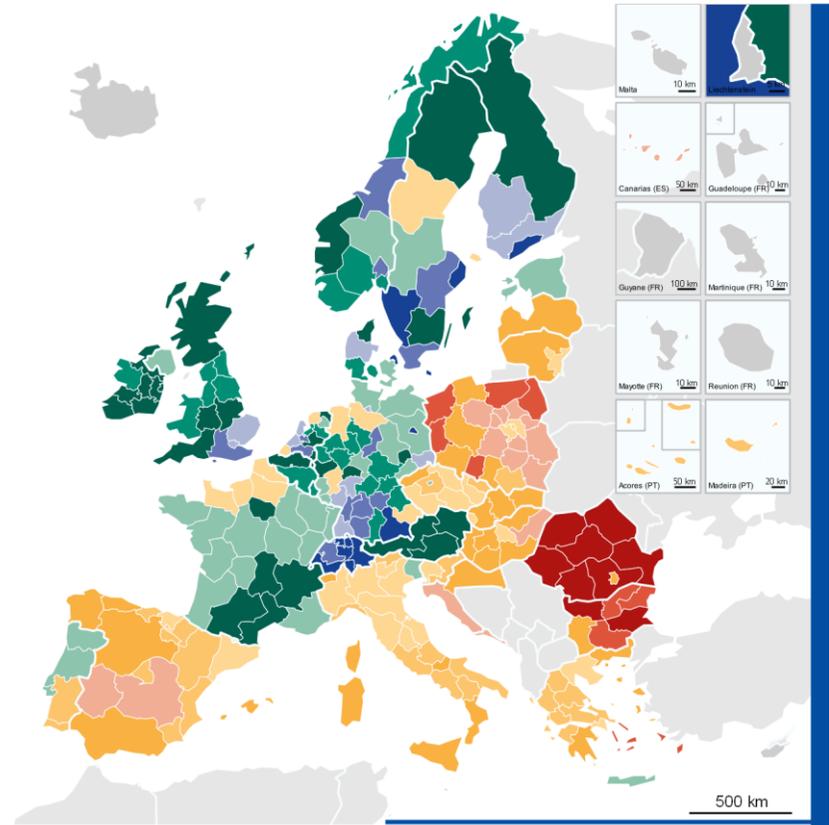
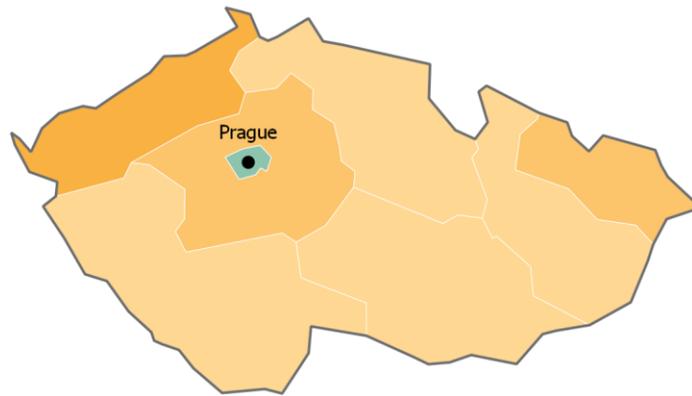
Smarter Europe

Regional Innovation Scoreboard (2019)

Knowledge-economy in regions (2015)

Dominant types of enterprises in regions (2014)

Regional Innovation Scoreboard (2019)



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100 km

500 km

RIS Performance groups 2019

Leader +	Strong +	Moderate +	Modest +	No data
Leader	Strong	Moderate	Modest	
Leader -	Strong -	Moderate -	Modest -	

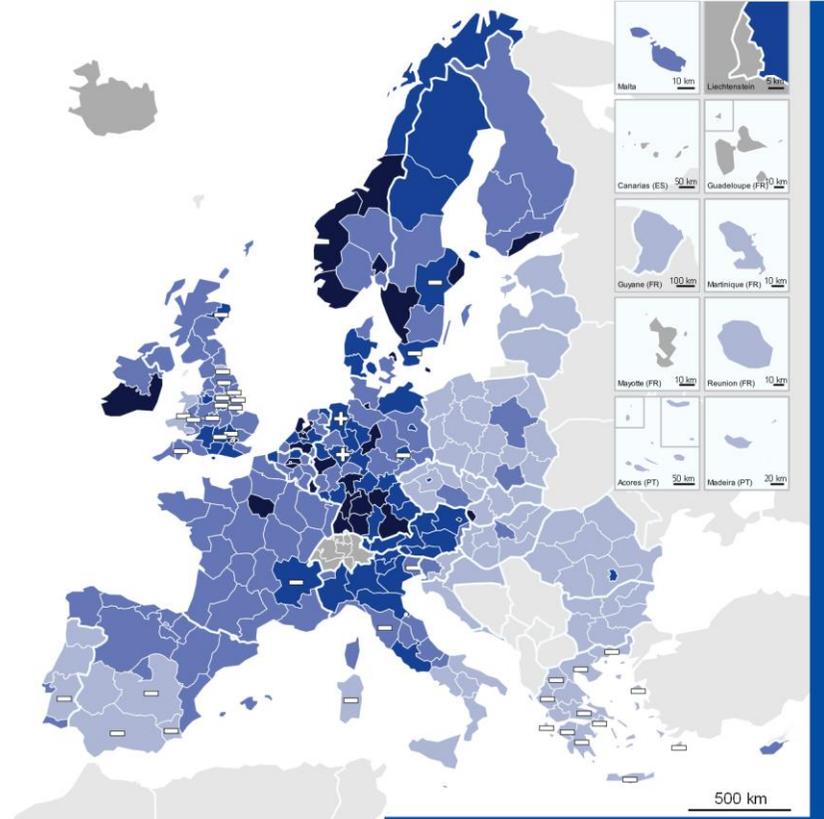
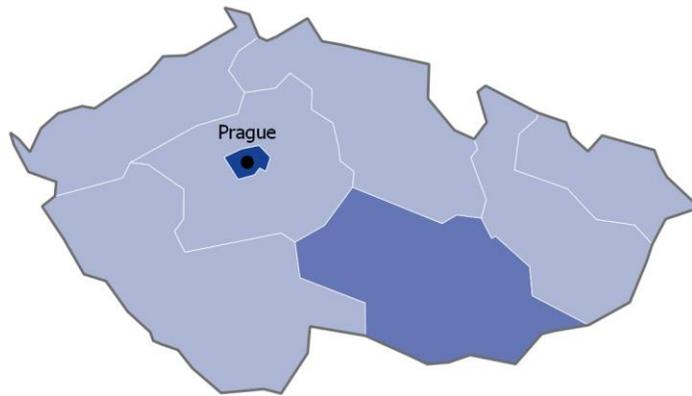
Origin of data: Regional Innovation Scoreboard, 2019
 Definitions: The RIS 2019 is a comparative assessment of regional innovation based on the European innovation scoreboard methodology, using 18 of the latter's 27 indicators. It provides a more detailed breakdown of performance groups with contextual data that can be used to analyse and compare structural economic, business and socio-demographic structure differences between regions.

Low innovation performance except in Prague

Innovation performance is measured by the European Commission on the basis of the unweighted average of 17 indicators reflecting human resources, research systems, R&D expenditure, innovation in SMEs, cooperation, patents and sales of innovative products. Based on their scores, EU regions fall into four performance groups: innovation leaders, strong innovators, moderate innovators and modest innovators, with three subgroups. At the European level, one observes a concentration of high performances in a European core area running from South-East England to Switzerland, southern Germany, including the southern part of Saxony on the border to the Czech Republic. Values are also high in a number of northern European regions with large cities.

Prague is the only region classified as a strong innovator, in the weaker of the three sub-groups. There is a major gap compared to the rest of the country. The innovation performance is particularly weak on the border to Saxony in the Northwest and in the Moravian-Silesian Region in the Northeast. These regions are still undergoing major industrial reconversion processes. The performance is similarly weak in the Central Bohemian Region surrounding Prague, possibly as a result of the concentration of resources and innovation initiatives in the capital city. Czech border regions all have a lower performance than regions in neighbouring countries, except for Lower Bavaria. Cross-border cooperation could therefore be particularly beneficial.

Knowledge-economy in regions (2015)



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Regional classification of Knowledge Economy (KE), 2012-2015

- highly competitive and KE based economy
- competitive and KE related economy
- less competitive with potential in KE economy
- less competitive with low incidence of KE
- no data

Change in typology between 2004 and 2015*

- change towards a less KE based typology
- change towards a more KE based typology

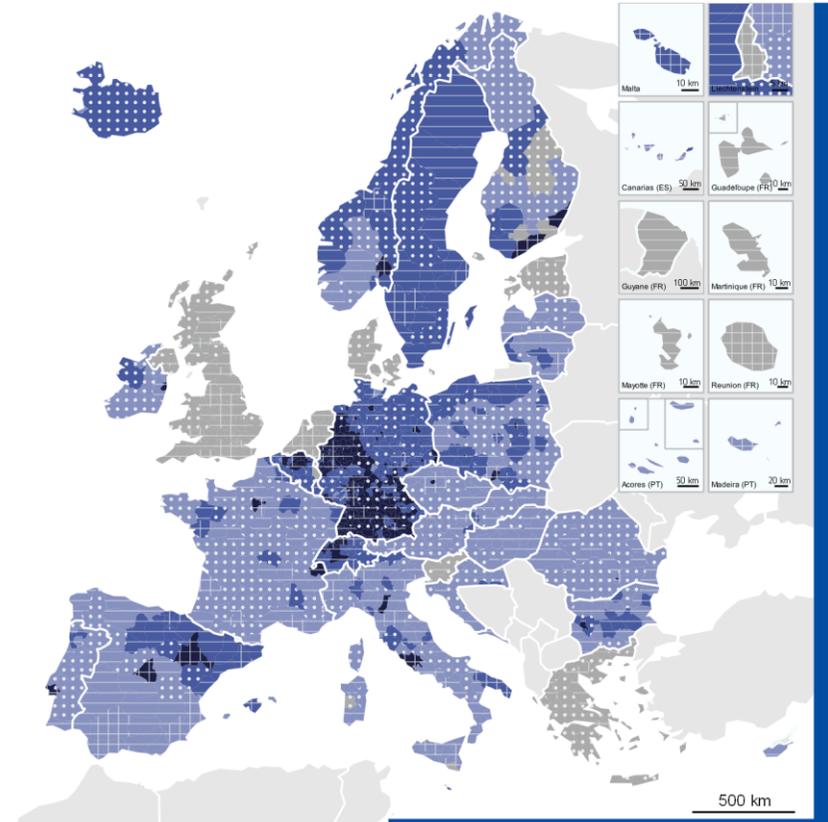
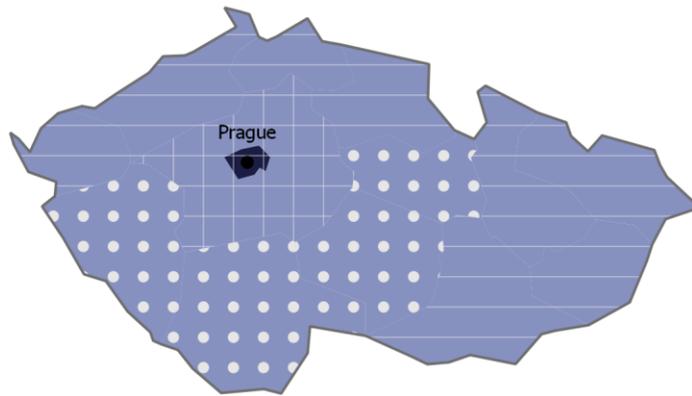
Origin of data: Eurostat, IRS Milano, IES Brighton, IRS Erkner, 2017
 Definitions: Regional classification of KE according to labour market conditions, KE potential, population and migration dynamics and context indicators, 2012-2015
 * Regions that did not change the KE typology between 2004 and 2015 are not marked with a symbol.

A knowledge-economy organised around Prague and Brno

The knowledge economy (KE) follows a clear core-periphery polarisation, with highly competitive regions located mostly in northern European regions or large cities. Less competitive regions with low incidence of KE are mostly found in the Mediterranean and eastern European countries. Many of them have been severely affected by the economic crisis. A number of regions have shifted to a less KE-based category between 2004 and 2015. These regions are concentrated in Greece, the southern Iberian Peninsula and the UK. Successful strategies to support the development of a KE in advanced and lagging regions are based on a careful assessment of territorial resources, a capacity to raise funds, and effective multilevel institutional cooperation.

The Czech Republic is characterised by a strong contrast between Prague, which has a competitive KE-related economy, and the rest of the country, which is mostly less competitive with a low incidence of KE. KE potentials are only identified in the Southeastern Region, where the city of Brno hosts research and development activities in a number of different fields. The Central European Institute of Technology (CEITEC) offers state of the art infrastructure in fields such as nanotechnologies, advanced materials and structural biology. The Honeywell development centre focuses on aerospace, building technologies, safety and productivity solutions and advanced materials. These major resources are not yet fully exploited.

Dominant types of enterprises in regions (2014)



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100 km

500 km

Origin of data: Eurostat Business Demography, Structural Business Statistics, Statistics Austria national SBS, Eurostat urban-rural typology.

Employment by size of enterprises

-  Type 1: above-average share of employment in large enterprises (250+)
-  Type 2: above-average share of employment in SME (10-249)
-  Type 3: above-average share of employment in microenterprises (1-9)
-  no data

Urban-rural typology

-  Predominantly urban
-  Intermediate
-  Predominantly rural

Over-representation of micro-enterprises in the whole Czech Republic, except for Prague

Regions with an above average share of employment in large enterprises are predominantly urban. In these regions, one can also observe a positive development of employment in SMEs. Capital city regions and regions in southern and western Germany belong to this type. Regions with an above-average share of employment in SMEs are found in northern and central European regions with diverse sectoral specialisation in the knowledge economy and Information and Communication Technologies (ICT) as well as regions in northern Poland, central Bulgaria, north-eastern Spain and parts of Italy. Regions with thriving microenterprises are found all over Europe, with sectoral foci in services, tourism or knowledge economy and ICT.

In the Czech Republic, Prague and the surrounding Central Bohemian Region are classified as predominantly urban. North-west, north, north-east and south-east regions are characterised as intermediate. Remaining regions are all characterised as predominantly rural. Only Prague has an above-average share of employment in large enterprises. In all other regions, shares of employment in micro-enterprises are higher than the EU average. In its 2019 Outlook on SME and Entrepreneurship, the OECD observes that “German firms have [enabled] an ecosystem of small-scale suppliers to emerge. Consequently, the SME share of employment in this sector is twice as high in Poland and the in the Czech Republic (20%) than in Germany”.



Greener Europe

Potential Green Infrastructure networks (2012)

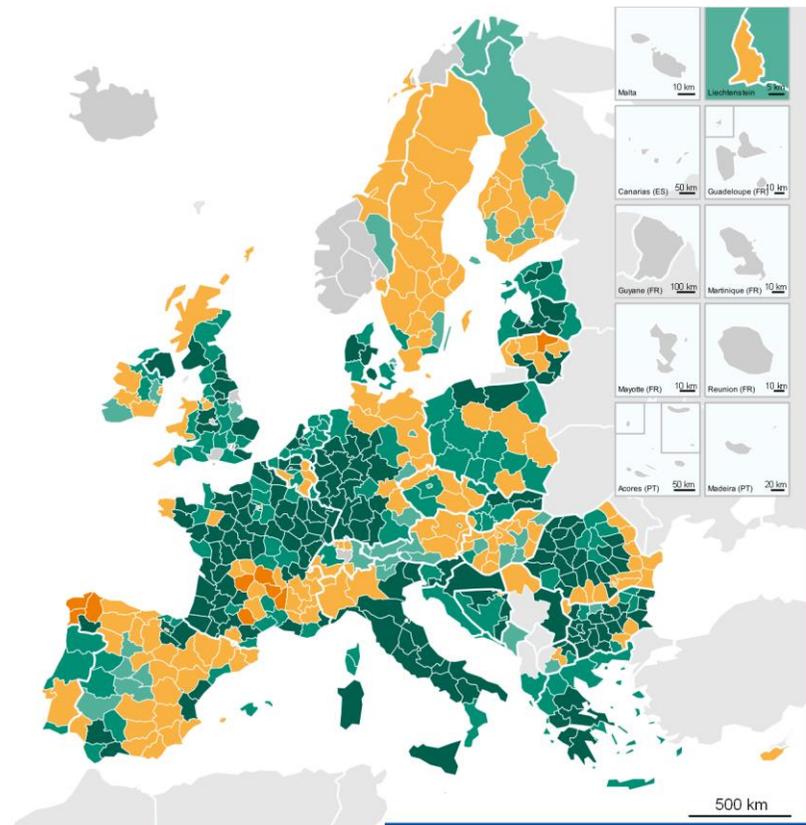
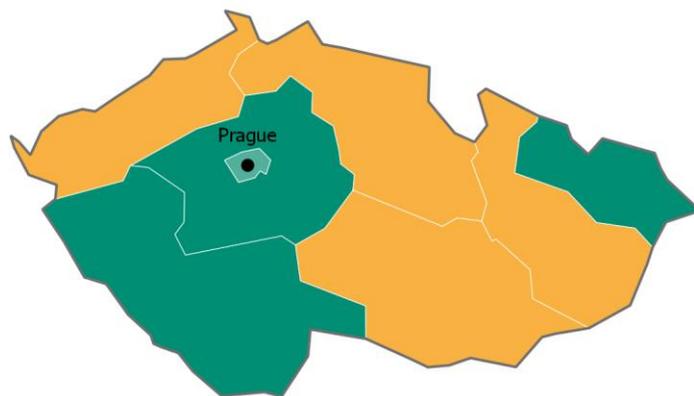
Coverage of potential Green Infrastructures (2012)

Aggregated potential impact of climate change

Fifty years of river flood events (1966-2016)

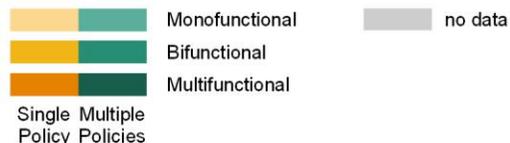
Installed capacity and potential of wind power (2016)

Potential Green Infrastructure networks (2012)



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Dominant type of Green Infrastructure (GI) links*



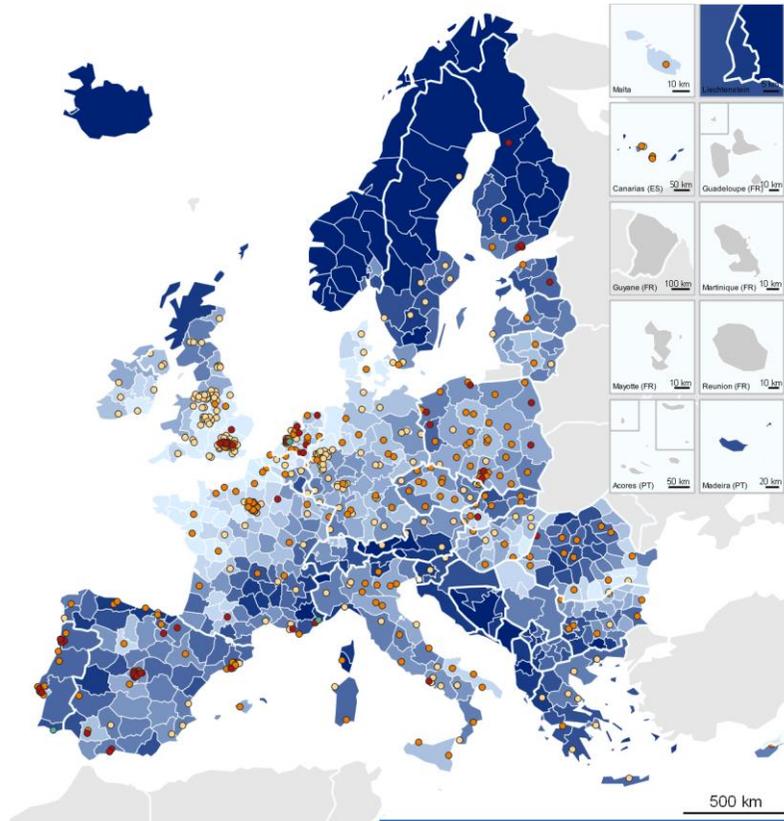
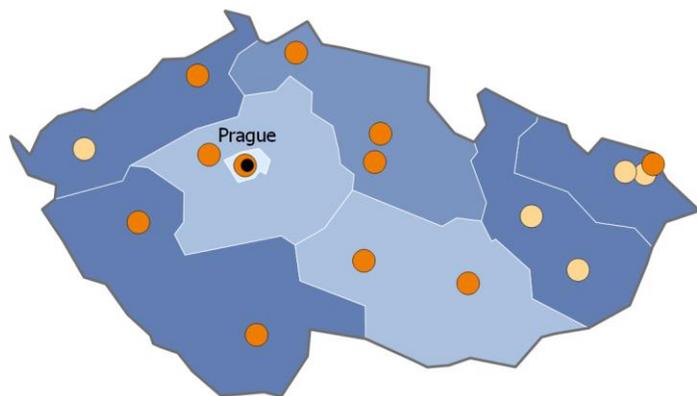
Origin of data: CLC 2012, Copernicus HRL Impervious 2012, OSM 2017, Natura 2000 (EEA, 2012), Emerald Network 2012, MAES (2011, 2015), HNMF (EEA 2015), Ecosystem types of map (ETC-SIA 2015)
 Definitions: Multifunctionality in GI planning means that multiple ecological, social and also economic functions shall be explicitly considered instead of being a product of chance.
 Single policy: the purpose of GI is to serve one single policy (e.g. biodiversity, climate change, water management, etc.)
 Multiple Policies: the purpose of GI is to serve multiple policies simultaneously.

Green infrastructure providing multiple ecosystem services across most of the Czech Republic

Green Infrastructure (GI) can be defined as a strategically planned network of natural and semi-natural areas whose environmental features are designed and managed to deliver a wide range of ecosystem services in both rural and urban areas. GI development can be a component of different policies i.e. Biodiversity, Climate Change and Disaster Risk Reduction and Water Management. It can also provide one or more environmental services, making it mono- bi or multi-functional. At the European level, GI tend to contribute to a single policy in many mountainous and less populated regions (e.g. western Alps, Iberian mountain regions, Massif Central). However, observed patterns are complex, as a wide range of factors intervene.

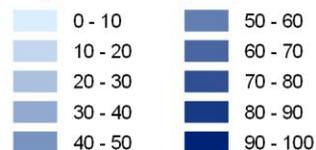
Green Infrastructure is monofunctional (i.e. providing only one type of ecosystem services) only in Prague. It is bifunctional in all other parts of the Czech Republic. This implies that, while the main issue in Prague is to manage trade-offs between different ecosystem services, one may in other parts of the country focus on exploiting synergies between ecosystem services. In the Northwest, Northeast, Southeast and Central Moravia regions green infrastructures contributes mainly to a single policy. Green infrastructure in the Southwest, Central Bohemia and Moravian-Silesian regions contribute significantly to multiple policies, in the same way as most of Western Poland.

Coverage of potential Green Infrastructure (2012)



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Regional coverage of potential GI network



Change of green areas within cities, 2006-2012



100 km

500 km

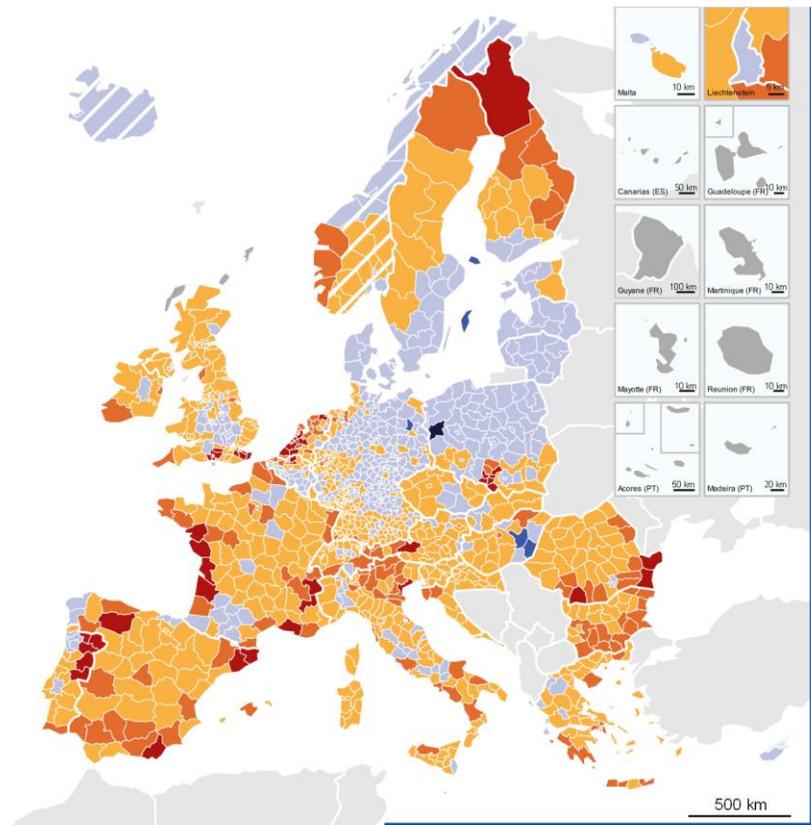
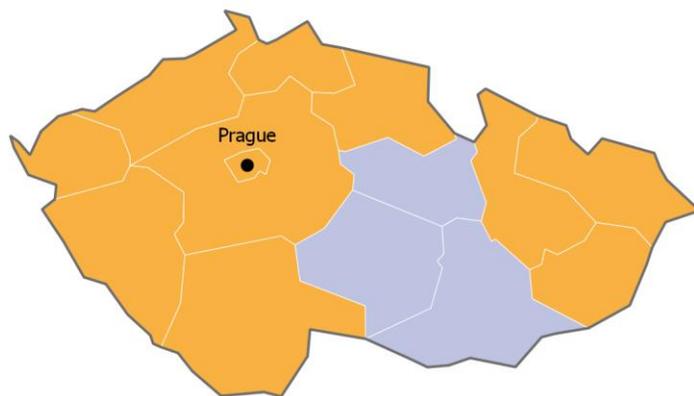
Origin of data: NUTS2/3 (2013)
Definitions: CLC 2012, Copernicus HRL Impervious 2012, OSM 2017, Natura 2000 (EEA 2012),
Emerald Network 2012, HNVF (EEA 2015), Ecosystem types map (ETC-SIA 2015)
* Change values are recorded by comparing datasets from the Urban Atlas, version 2006 and 2012.
Cities without symbols are not included in the two datasets.

A decrease in the cover of green infrastructure in cities

Evolutions in proportions of green and blue areas between 2006 and 2012 have been calculated for 524 European “core cities” based on Urban Atlas data. On average, green and blue areas cover about two thirds of the area in European core cities. In a majority of cities, this proportion is decreasing slightly between 2012 and 2016. Significant decreases tend to be found in eastern and southern European countries. This is mainly a result of urbanisation and/or of the development of tourism. Green infrastructures cover a low proportion of the area in an area running from western France and Cornwall to Denmark. They are the highest in northern Scandinavia and the Western Balkans.

Regional coverage of green infrastructures is the lowest in the Czech Republic most urbanised regions: Prague, Central Moravia, and the South West Region. Green areas are declining most between 2006 and 2012 in Prague and in Jihlava. However, the decline is stronger in the outer parts of the metropolitan area (located in Central Bohemia region) (-1,53 perc. points) than in the Prague region itself (-1,07 perc. points). Other cities with a limited decrease are Pardubice (-1 perc. point) České Budějovice (-0,97 perc. point), Ústí nad Labem (-0,84 perc. point), Plzeň and Brno (both -0,71 perc. point), Hradec Králové (-0,67 perc. point) and Liberec (-0,58 perc. point). All other cities have a stable proportion of green areas.

Aggregate potential impact of climate change



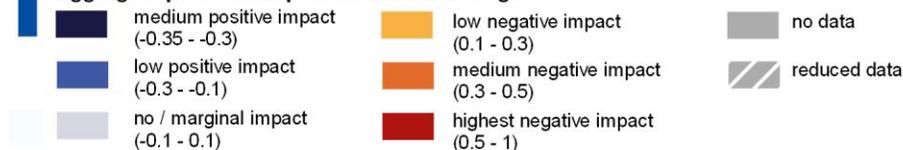
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100 km

500 km

Aggregate potential impact of Climate Change



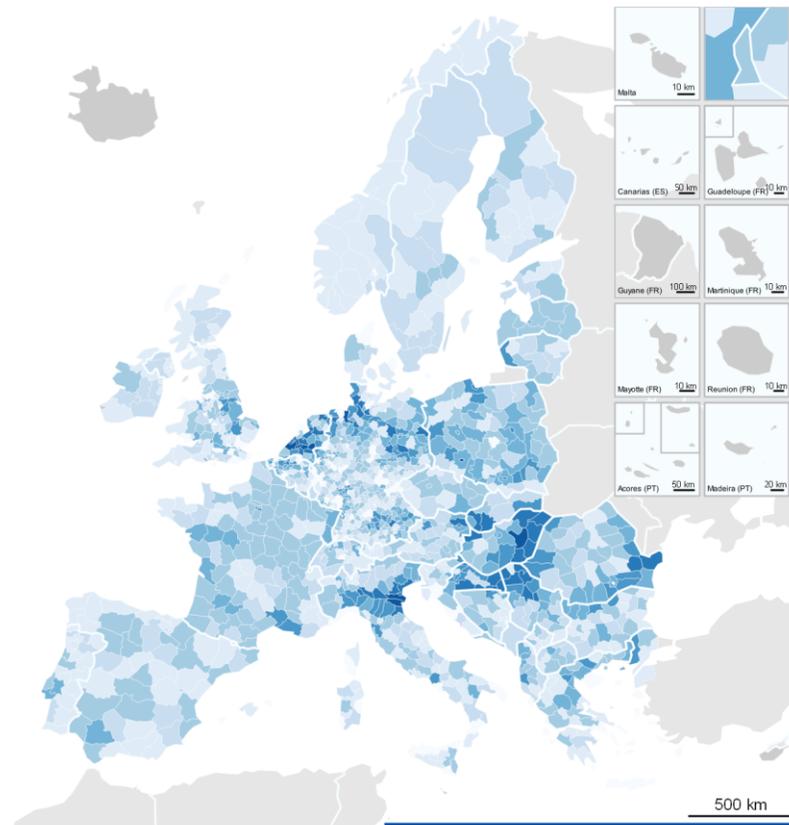
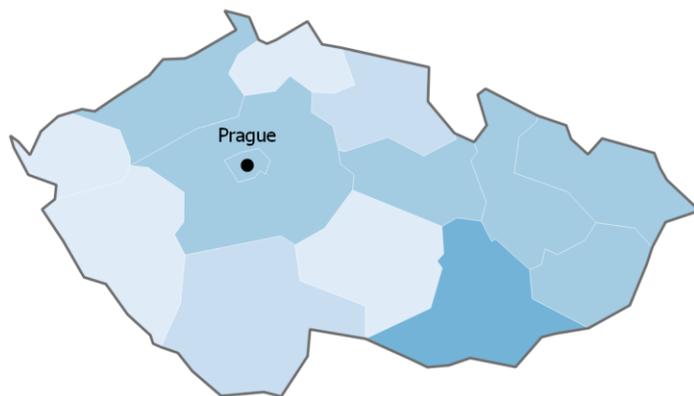
Source : ESPON Database, ESPON Climate Update, plan – risk consult, 2014
 Origin of data : EEA, 2013, 2013 (CORIN 2006), 2014 (NATURA 2000), E-PTRT 2012, OSM2014, GISCO 2006, Eurostat 2006, 2011, 2013, 2014, JRC 2006, 2012 (ENSEMBLES), 2013a (Eurosoils), 2013b (LISFLOOD), 2013c, 2014, USGS 2011, DIVA 2004, ATSR 2014, Statistics Iceland 2011, Bundesamt für Statistik 2011, 2014, Amt für Statistik Liechtenstein 2014, 2011, HESTA, 2014.
 The indicator puts together expected impact of climate change on environmental assets, economic activities, physical infrastructures, social cohesion and cultural sites. For more information, see ESPON CLIMATE final report
 Note : regions with reduced data are missing information related to environmental sensitivity and exposure. For more details, see ESPON CLIMATE Update Annex

Limited exposure to climate change compared to other European countries

Important factors for the potential environmental impact of climate change are high slopes (e.g. in mountainous regions), exposure to soil erosion (e.g. in river deltas or along coasts) and large protected areas, flood and drought risks. Regions that are the most exposed to the overall negative impact of climate change are primary close to a coastline or to a major river (e.g. Rhone, Po), southern Europe (e.g. mountain areas of northern Portugal, Galicia, Andalusia and Catalonia, Romanian and Bulgarian regions facing the Black Sea) and in the inland to the north and east of Scandinavia. Exposure is more limited around the southern part of the Baltic Sea, in Eastern German and in most of Poland.

Expected impacts in the Czech Republic are limited in comparison to other European countries. They are marginal in the Pardubice, Vysočina and south Moravian region. They are low but negative in the rest of the country. This is partly linked to the fact that projections foresee a decrease in inundation heights in the Czech Republic and decreases in summer precipitations that would be limited to 20%. However, mean evaporation is projected to increase more in the Czech Republic than in most surrounding regions in Austria, Germany and Poland.

Flood hazard (areas exposed to events with 100-year return period)

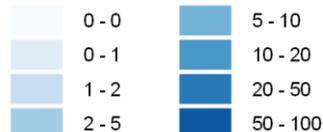


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100 km

500 km

Share of regions exposed to flood hazard (% NUTS3 area, including water bodies)



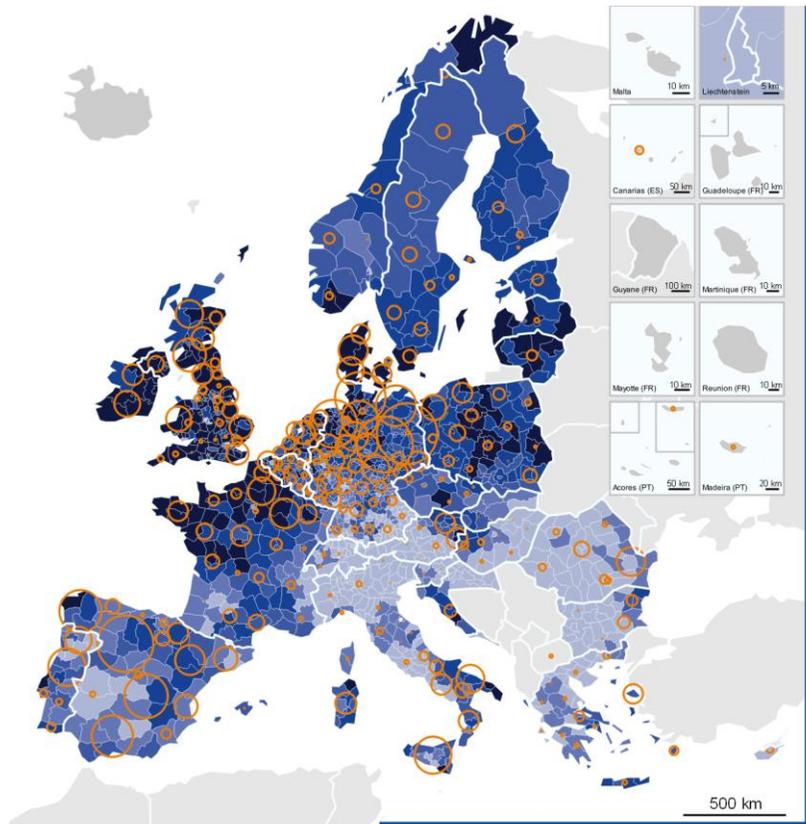
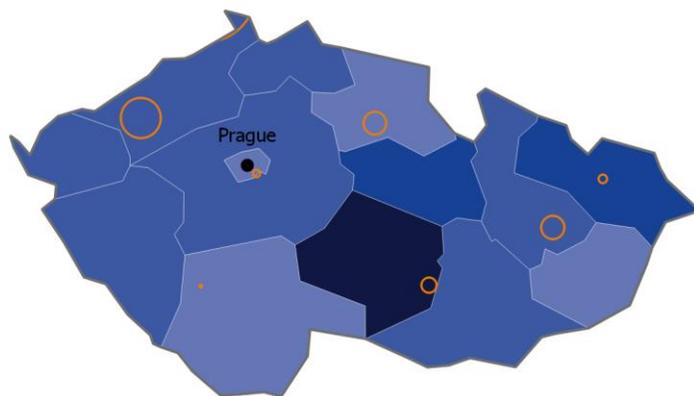
Source: ESPON TITAN
 Origin of data: JRC, 2020; Alfieri et alii, 2014
 Methodology: calculation of the share of flood prone areas based on 100m*100m grid provided by the JRC

Lower valleys of main rivers (Elbe, Morava) most exposed to extreme flooding events

The highest average values for floods per year measured for each river basin in Europe are found in the low-lying areas along the Rhine and the Danube rivers. The other river basins with high flood risks are the Po river in Northern Italy and all river systems in England. Flood occurrence is projected to increase even further with climate change. The main reason for high flood occurrence is the general increase in winter precipitation, apparent in almost all regions of Europe except in the Southern Mediterranean.

In the Czech Republic regions most exposed to extreme flooding events are found in the Morava valley which belongs to the Danube river basin. 5.6% of the South Moravian region would be flooded in case of an event with 100-year return period. Other Eastern regions are exposed up to 5% of their areas. The Elbe river basin is less flood prone. However the lower Elbe valley at the confluence with Vltava would also experience consequent flooding (4.0% and 3.6% of areas exposed respectively in Central Bohemia and Ústecký Region).

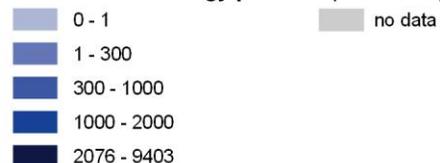
Installed capacity and potential of wind power (2016)



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Wind onshore energy potential (MWh/km²) - NUTS3



Installed capacity of windpower (MW) - NUTS2



Origin of data: European Commission, JRC, EMHIRE dataset part 1, wind power generation, 2016.
 * Regions without symbols are missing data regarding the installed capacity of wind power.

Limited development of wind power, also in regions with high potential

Regions with the highest potential for wind power production are concentrated in Western Europe, close to the English Channel, Irish Sea and North Sea. However, large potentials can also be found in areas around the Baltic Sea, and in large parts of Poland. The wind energy production potential is furthermore significant throughout the territory, as illustrated by the spatial distribution that have installed wind power production facilities. Their development has been particularly important in Germany (capacity of 61.4 GW in 2019), Spain (25.8 GW), the UK (23.5 GW) and France (16.7 GW). In Poland, it is only 5.9 GW, despite the major identified potentials. the highest share of electric production coming from wind power is observed in Denmark.

While the potential for wind power generation in the Czech Republic is significant, its development is low compared to other European countries. The production capacity of the Czech Republic was 316 MW in 2018, against 193 MW in 2009. This implies that the production capacity per million inhabitants is just under 30 MW, against 1058 MW in Denmark and 710 MW in Germany. The production capacity is mainly located in the Northwest region (146 MW in 2015) and to a lesser extent in Central Moravia (47 MW) and Northeast region (47 MV). Regions with the distinctly highest wind power potential (Vysočina and Moravian Silesian region) have not yet seen a significant development of wind power.



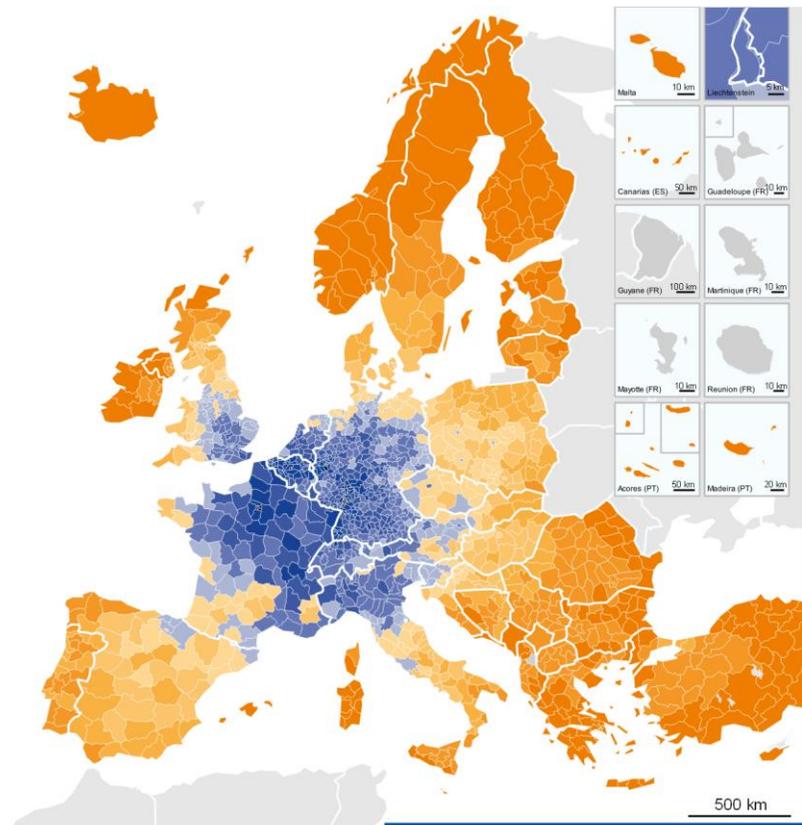
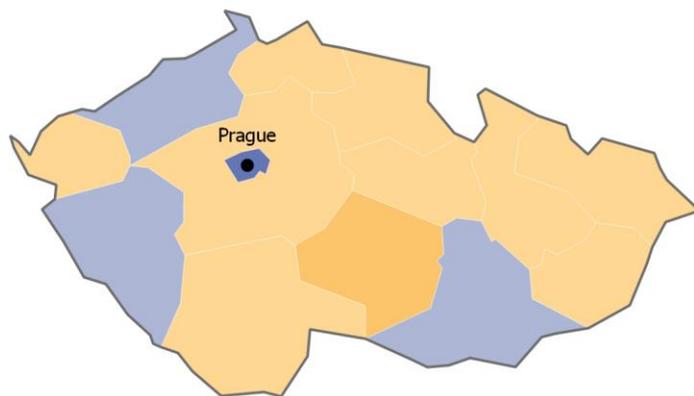
More connected Europe

Accessibility potential by rail (2030)

Accessibility potential by road (2030)

Broadband access (2018)

Accessibility potential by rail (2030)



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Accessibility potential by rail in 2030 (index)



100 km

500 km

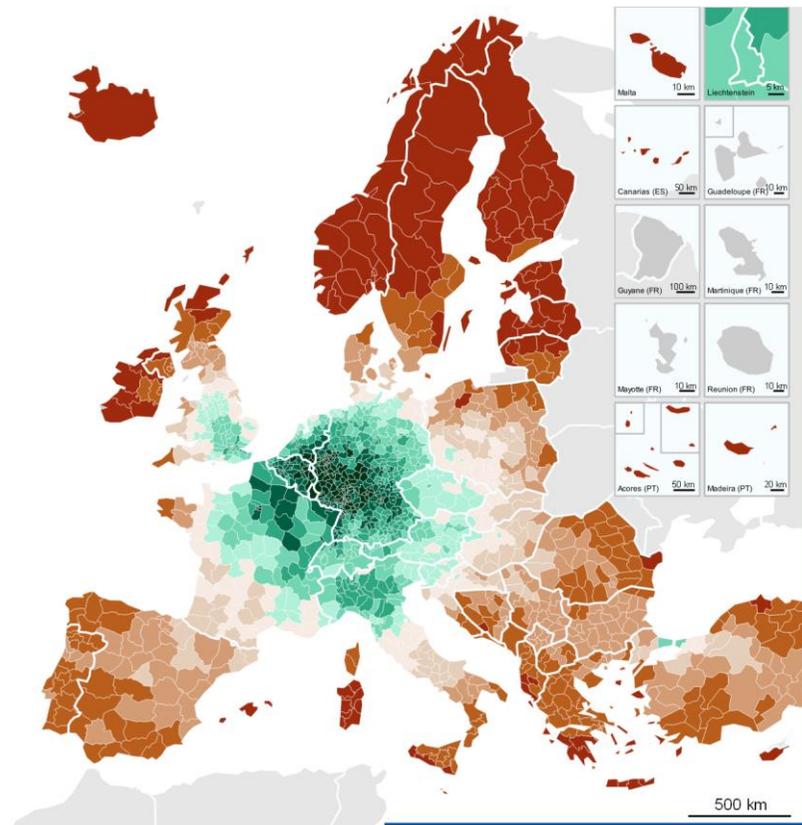
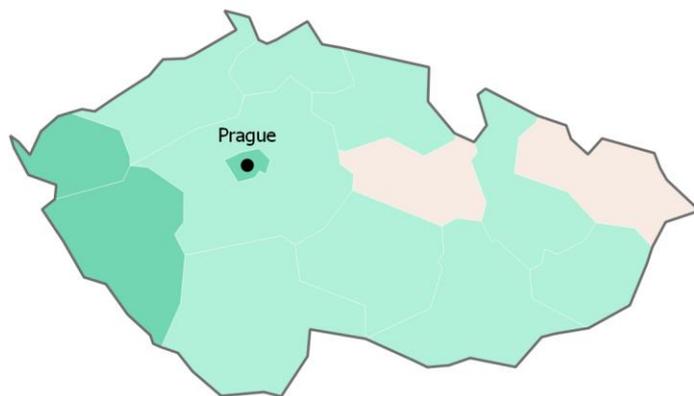
Source: Spiekermann and Wegener Urban and Regional research (S&W), ACC SCEN, 2017
 Origin of data: S&W Accessibility Model, 2016 RRG GIS Database, 2014
 Accessibility potential by rail describes how easily people in one region could reach other people (business partners, clients, friends, family etc.) who are located in other parts of Europe by rail.
 Accessibility potential is also presented for regions that at the moment don't have railways, but have plans on developing this kind of infrastructure.
 Calculations for the accessibility potential rely on an expected and realistic time table for the development of the TEN-T.

Highest rail accessibility around the main urban centres

European rail accessibility is highest in a European core area which includes most of England, France and Germany, the Benelux countries and Switzerland, northern Italy and Austria. The construction of new rail lines, or improvement of existing ones, tend to improve the quality of connections within this core area or linking it to more peripheral regions. They seldom connect peripheral region. As a result, contrasts of potential accessibility between the European core area and the rest of Europe are not expected to be attenuated in the next 10 years. High quality railway connections between Spanish metropolises do not significantly impact accessibility measures, as demographic mass of connected metropolitan areas is comparatively smaller.

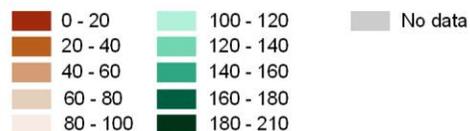
The Czech Republic is located at the Eastern border of the area where rail accessibility is above EU average. Values are expected to be more than 20% above EU average only in Prague, which is the main node of the Czech railway system. Accessibility is also above EU average around Brno in South Moravia, Plzen and Ústí nad Labem. The development plan for the Czech railway network of 2017 foresees the development of five high speed corridors connecting Plzen and Ústí nad Labem to Prague and Brno to Ostrava in the east and to Wien and Bratislava to the south. These connections are planned to be running in 2030.

Accessibility potential by road (2030)



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Accessibility potential by road in 2030 (index)



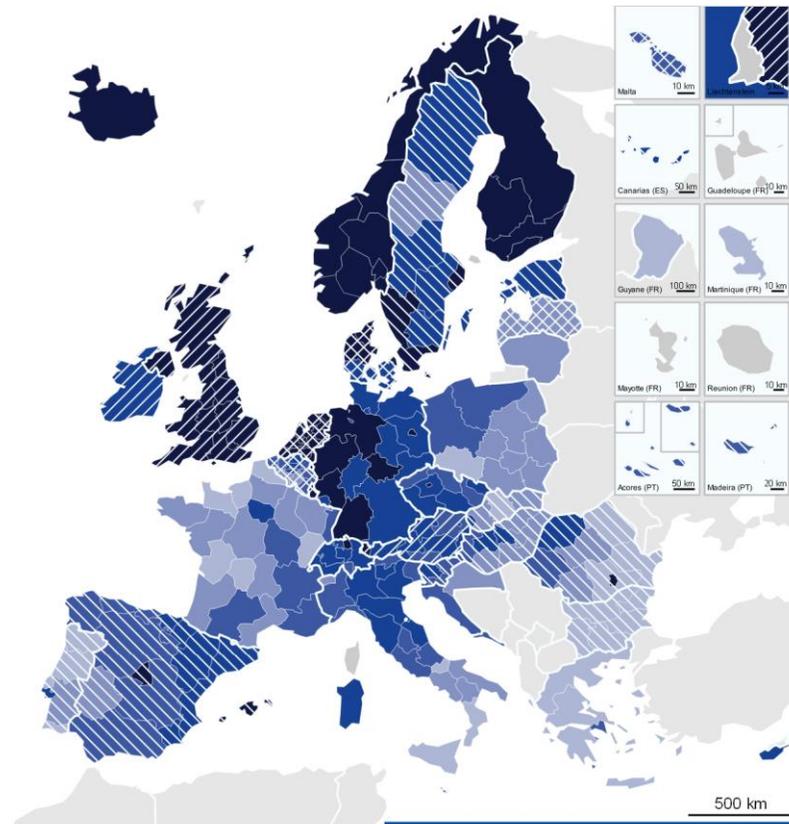
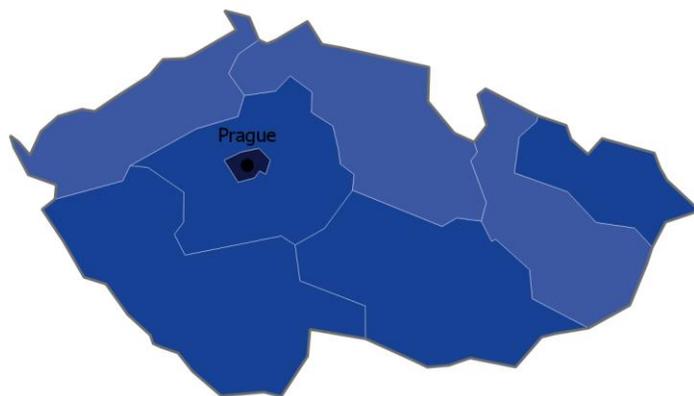
Source: Spiekermann and Wegener Urban and Regional research (S&W), ACC SCEN, 2017
Origin of data: S&W Accessibility Model, 2016, RRG GIS Database, 2014
Accessibility potential by road describes how easily people in one region could reach other people (business partners, clients, friends, family etc.) who are located in other parts of Europe by road.*

Road accessibility in the Czech Republic : a West-East gradient

European road accessibility is expected to be highest in a European core area centered around western German states of North Rhine-Westphalia and Rhineland-Palatinate. The construction of new major roads, or improvement of existing ones, tend to improve the quality of connections within this core area and to link it to more peripheral regions. They seldom connect peripheral region. As a result, contrasts of potential accessibility between the European core area and the rest of Europe are not expected to be attenuated in the next 10 years. The issue for peripheral regions is not necessarily to get closer to EU average in terms of accessibility, but to ensure that they have the road infrastructure needed for their economic development.

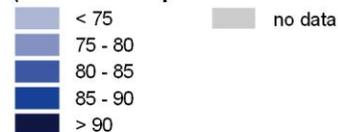
The Czech Republic is located at the Eastern border of the area where road accessibility is above EU average. Therefore road accessibility in the Czech Republic follows an West-East gradient. In 2030, index values are expected to be highest in Karlovy Vary and Plzen regions, and lowest in Pardubice and Moravian Silesian regions. Prague stands out with higher values than surrounding regions, as a result of the convergence of main road axes towards to capital city.

Broadband access (2018)

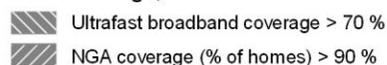


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Proportion of households with broadband access, 2018 (% share of all private households)*



Countries with high values in ultrafast broadband or NGA coverage, mid 2018



Origin of data: Eurostat, DESI Index 2019
 Definition: Ultrafast broadband offers at least 100 Mbps download speed, NGA = next-generation access
 * The availability of broadband measured by the percentage of households that are connectable and thus refers to coverage.

The Czech Republic approaching universal broadband coverage

The Nordic states, the United Kingdom and Western Germany register the highest values in terms of households with basic broadband access. Most regions have more than 75 % of households with at least 30 Mbps broadband access, therefore missing the EU 2020 target of 100 % coverage. Regions in the core of Europe are close to ensuring 100 % 30 Mbps broadband access, while those in southern Europe can cover between 75 % and 85 % of households, or even less. Even though eastern European countries lag behind in terms of broadband access, with values below 75 %, they show high internet performance, having good next-generation access broadband coverage and, in some cases, high scores with regard to access to ultrafast broadband.

Czech households and companies' access to broadband is equivalent to the one that can be found in e.g. Austria and Switzerland. This places the Czech Republic in the group of high performers in this respect. Broadband coverage is almost complete in Prague, above 85% in Central Bohemia and in the more urbanised Southwest, Southeast and Moravian-Silesian regions. Remaining regions have a broadband access above 80%. However, the Czech Republic is not among the countries with extensive coverage in terms of ultrafast and Next Generation Access (NGA).



More social Europe

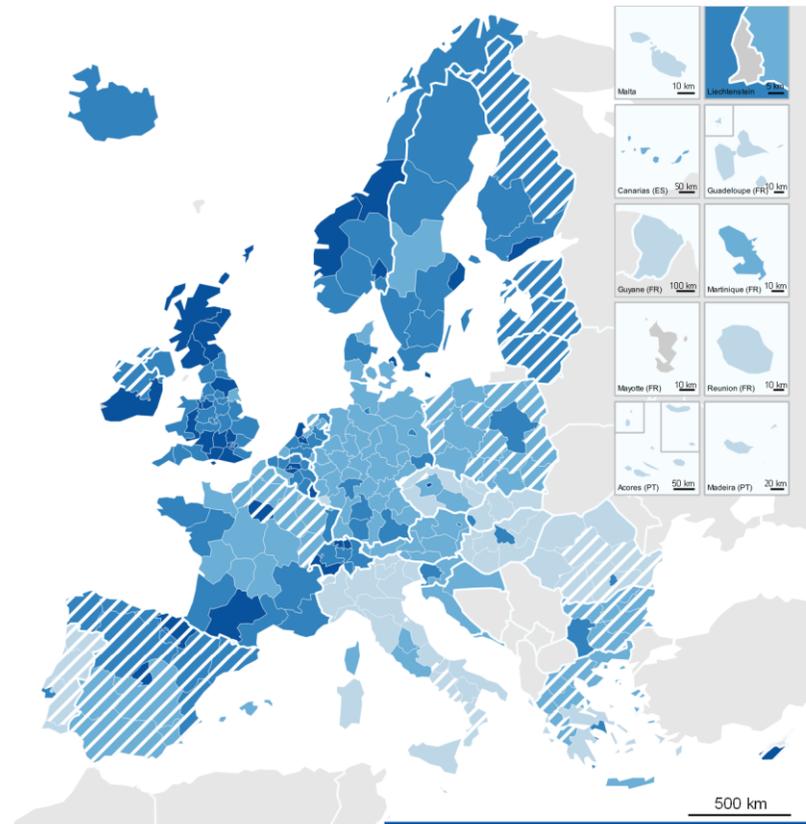
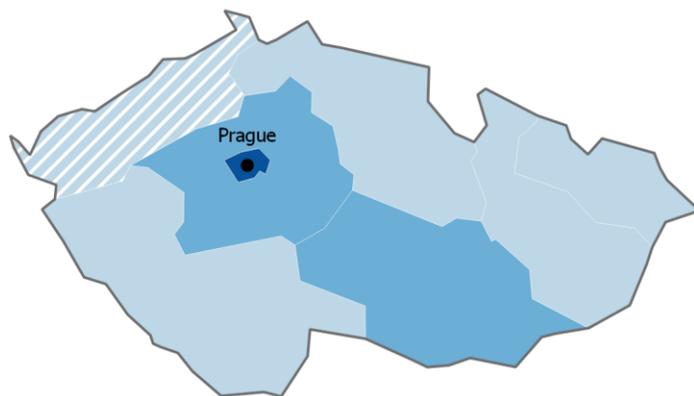
Tertiary educational attainment (2014)

Development of NEET rates (2012-2016)

Attractiveness of regions to migrants (2017)

Asylum applications (2016)

Tertiary educational attainment (2014)



ESPON   © ESPON, 2020
 Regional level: NUTS 2 (2013)
 UMS RIATE for administrative boundaries
 Co-financed by the European Regional Development Fund

100 km

500 km

People with higher education (as a % of active population)



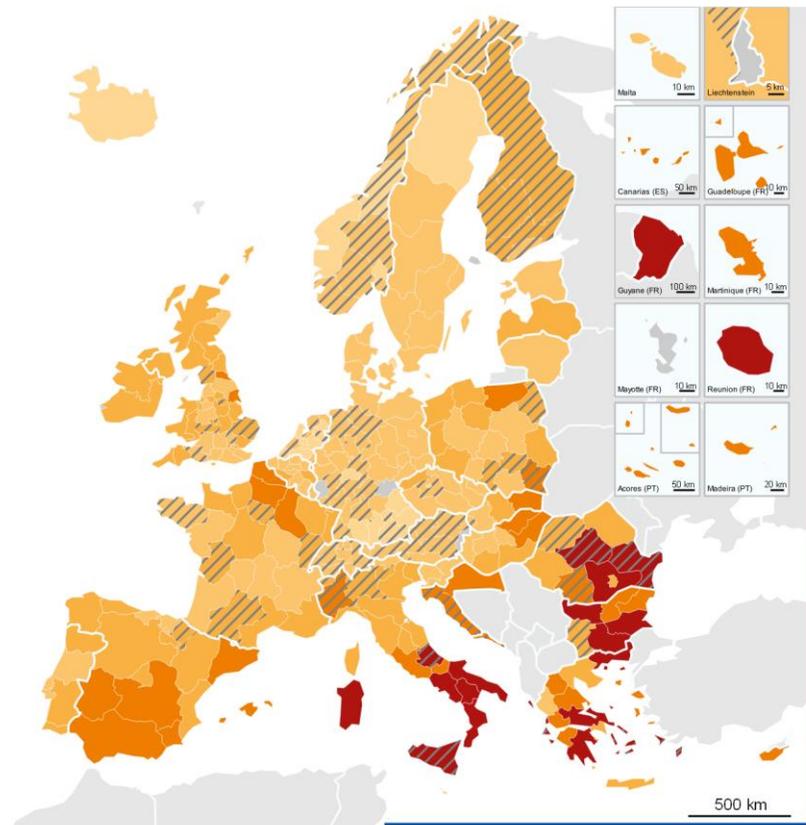
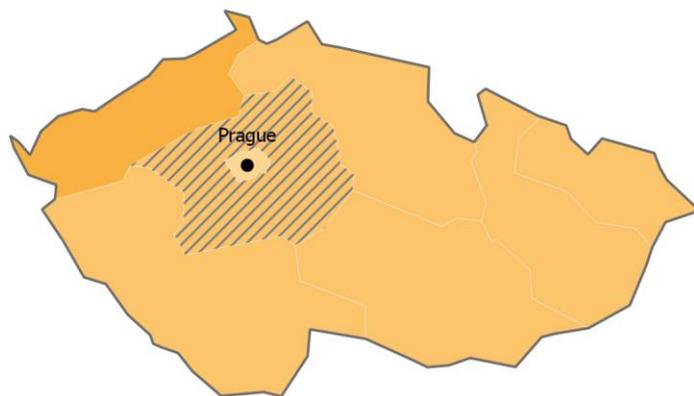
Source: IRS Milano, IRS Erkner (2017)
 Origin of data: Eurostat (2016)

Population with tertiary educational attainment concentrated in largest cities

High proportions of the labour force with high educational attainment levels can predominantly be found in northern and western European regions where knowledge-intensive economic activities are concentrated. Between 2004 and 2014, the proportion of the total population with a tertiary education increased in all European regions, with higher growth rates in northern and western European regions and lower rates in the south. Employment growth rates in research-related and white-collar occupations and increases in R&D expenditures and numbers of personnel working in R&D sectors display similar distribution patterns.

Highly educated and economically active persons are concentrated around Prague and Brno, with the highest values within the region of Prague. All other regions display lower values compared to those found on other countries, except along the border to Slovakia. However, the only region with negative net migration is the Northwest regions, probably as a result of ongoing industrial reconversion processes and of the proximity to German labour markets on the other side of the border.

NEET rate development (2012-2016)



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 Regional level: NUTS 2 (2013)
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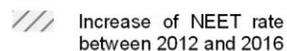
100 km

500 km

NEET rates in % (2016)



NEET rate development (2012-2016)



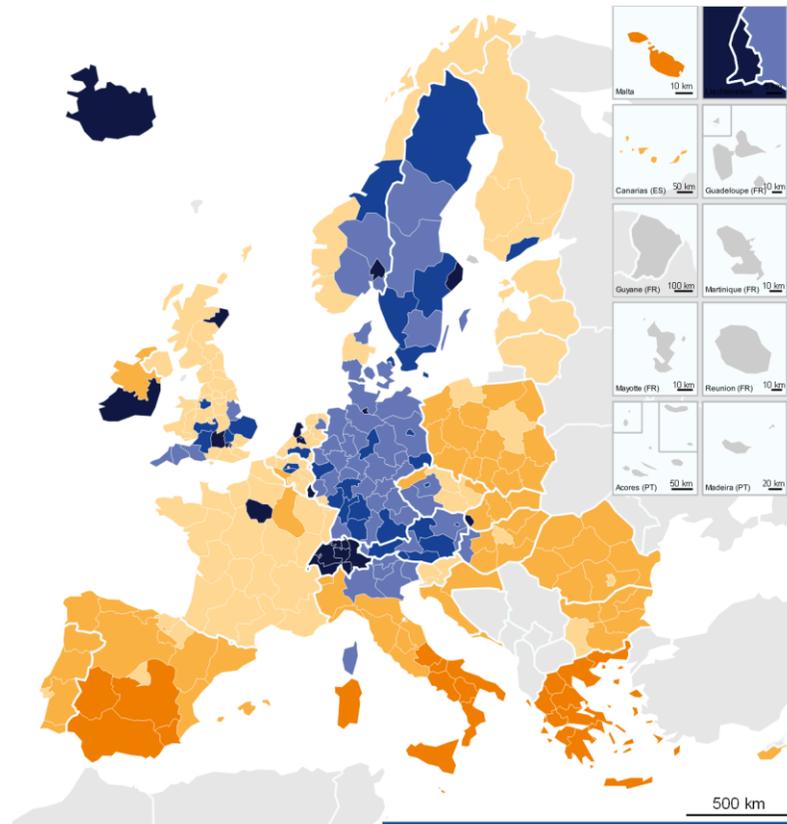
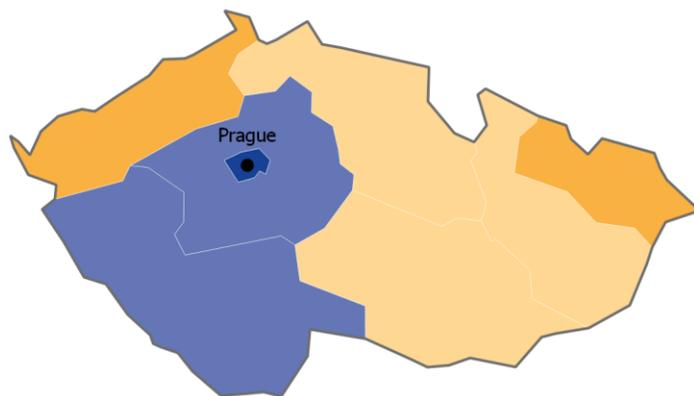
Source: YUTRENDS 2019
 Origin of data: Eurostat 2019
 NEET: Young people aged 20-34 Not in Education, Employment or Training.
 2012 data are missing for Liechtenstein, Guyane (FR), Guadeloupe (FR),
 Martinique (FR) and Réunion (FR)

Increase of NEETs mainly around Prague

Young people who are “Not in Education, Employment, or Training” (NEETs) are a category facing specific challenges in many European regions. A significant problem with NEETs is that they are not a homogeneous group and are often difficult to identify and engage with. Regions in the south and east of Europe registered the highest NEET rates in 2016, with the highest values in Bulgaria, southern Italy and Romania. Between 2012 and 2016, proportions of NEETs have increased in many parts of Europe, including regions with low rates in e.g. Germany and Norway and also some of the regions with the highest rates in Europe (e.g. Sicily, parts of Romania).

The Czech Republic is one of the countries with the lowest proportions of NEETs in Europe. Rates are particularly low in Prague. The Northwest region is the only one with a NEET rate exceeding 10%, as a result of ongoing industrial reconversion processes. This is partly a result of particularly low overall unemployment rates in the Czech Republic (between 3,5% and 4,3% in 2016). However, NEET rates have been increasing in the Central Bohemia region around Prague.

Attractiveness of regions to migrants (2017)



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 Regional level: NUTS 2 (2013)
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100 km

500 km

Origin of data: Eurostat, 2018

Distribution of EU regions based on the cluster analysis regarding their absorption capacity for migrants, 2017

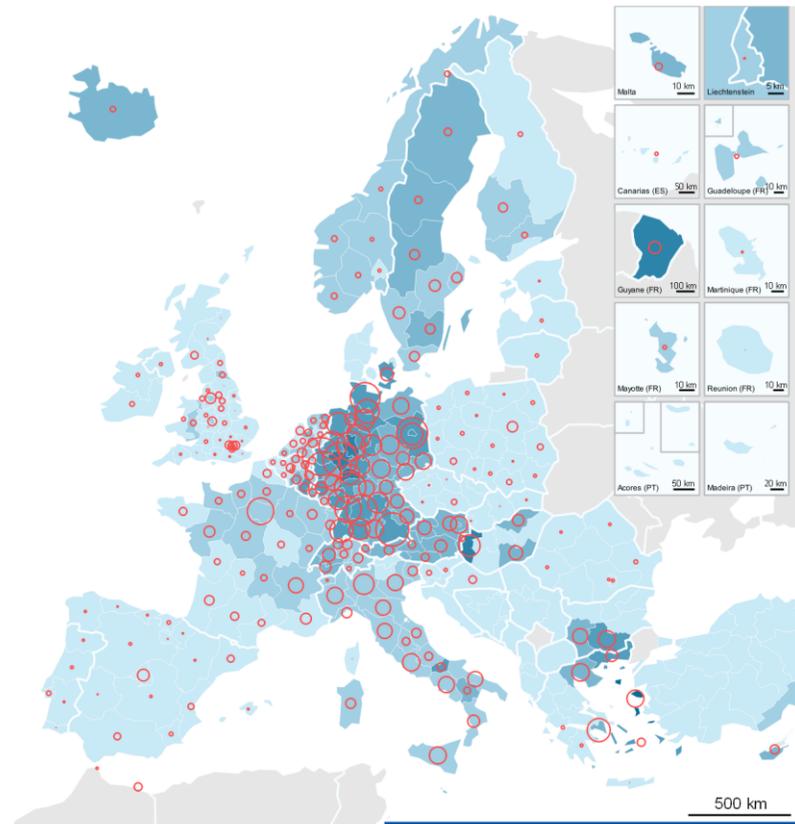
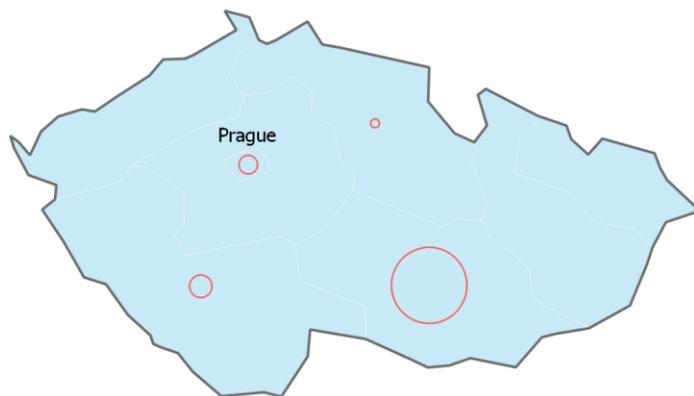
- | | | | | | |
|---|--|---|---|---|---------|
|  | Strongly attractive metropolitan areas and poles of financial services |  | Regions with medium growth, highly educated population, demographic balance, and low immigration rate |  | no data |
|  | Highly attractive regions with strong economic growth and innovation pulse |  | Low income regions, with strongly negative demographic balance | | |
|  | Manufacturing regions with high immigration attraction |  | Lagging and depopulating, Southern border regions | | |

Central and southern regions strongly attractive to migrants

The capacity of each region to integrate asylum seekers and refugees depends on a number of factors, such as economic growth, employment opportunities and demographic trends. Europe's most attractive regions are primarily located in an axis running from northern Italy, through Switzerland, Austria and Germany to Norway and Sweden. This axis also includes the westernmost regions of Hungary, Slovakia and the Czech Republic. In addition, parts of the UK and the Netherlands are highly attractive, as well as a number of capital regions (Dublin, Paris, Helsinki). Europe's least attractive regions are concentrated in southern parts of Spain and Italy and in Greece, and in Central and Eastern European countries.

The attractiveness of Czech regions for migrants is highly contrasted. Prague and the Central Bohemia region are highly attractive, as well as the Southwest regions. They offer numerous employment opportunities for varied profiles: highly educated jobs, but also less qualified employment in manufacturing industries. The Czech Republic has low unemployment rates compared to other European countries. This facilitates the integration of migrants. The least attractive zones are those going through industrial reconversion processes, i.e. the Moravian Silesian region and the Southwest region. The Southeast, Northeast and Central Moravia regions are all considered moderately attractive for migrants.

Asylum applications (2016)



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 Regional level: NUTS 2 (2013)
 © UMS RIATE for administrative boundaries

100 km

500 km

Asylum applications



max : Southeast region
 CZ map



max : Düsseldorf
 European map

Applications per inhabitants



Origin of data: Eurostat, 2018
 Source: ESPON MIGRARE, 2018

Relatively low number of asylum applications lodged in the Czech Republic

As a result of the recent crises in the Middle East and East Africa, European countries have registered an unusually high number of asylum applications in 2015-2016. The Turkish regions bordering Syria are at forefront as they absorb refugees fleeing combat zones in Northern Syria. Mediterranean countries (Greece, Italy) are also recording high numbers of application, as maritime entry points into the European territory. Besides some countries have positioned themselves as places favourable to asylum and are registering a higher number of applications in relation to their resident population: Germany, Austria, Switzerland and Sweden.

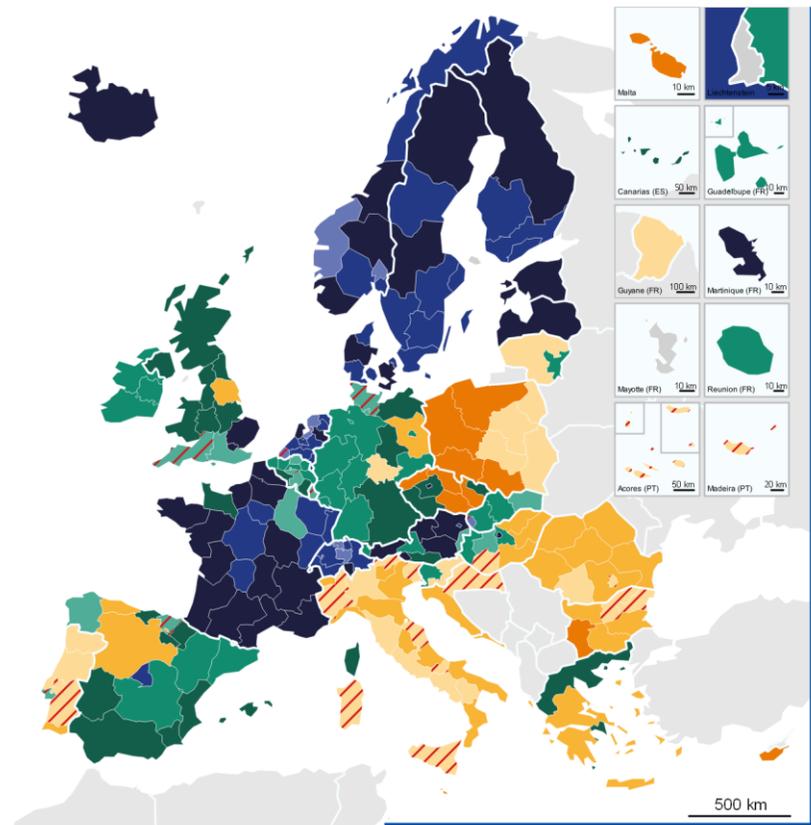
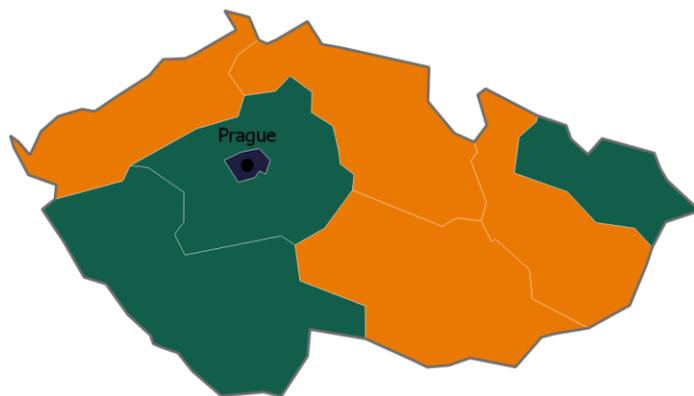
In the Czech Republic, the number of asylum applications is rather low (1 475 applications in 2016, 1.4 applications for 10 000 inhabitants). 76% of these applications are lodged in the Southeast region, two asylum reception centres being located near Brno.



Europe closer to citizens

- Status and evolution of eGovernment interactions (2014-2019)
- Thematic fields covered by crossborder public services (2018)
- Needs for crossborder public services assessed by survey (2018)
- Population halving time (based on 2001-2011 population change)
- Inner peripheries based on poor access to Services of General Interest (2017)
- Population dynamics in Inner Peripheries (2000-2015)

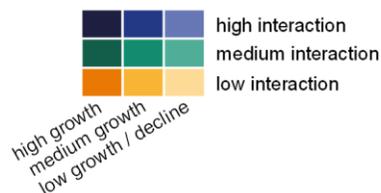
Status and evolution of eGovernment interactions (2014-2019)



ESPON   © ESPON, 2020
 Regional level: NUTS 1/2 (2016)
 UMS RIATE for administrative boundaries
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Share of people who have interacted with public authorities online (2019) and change (2014-2019)

 decline (2014-2019)



100 km

500 km

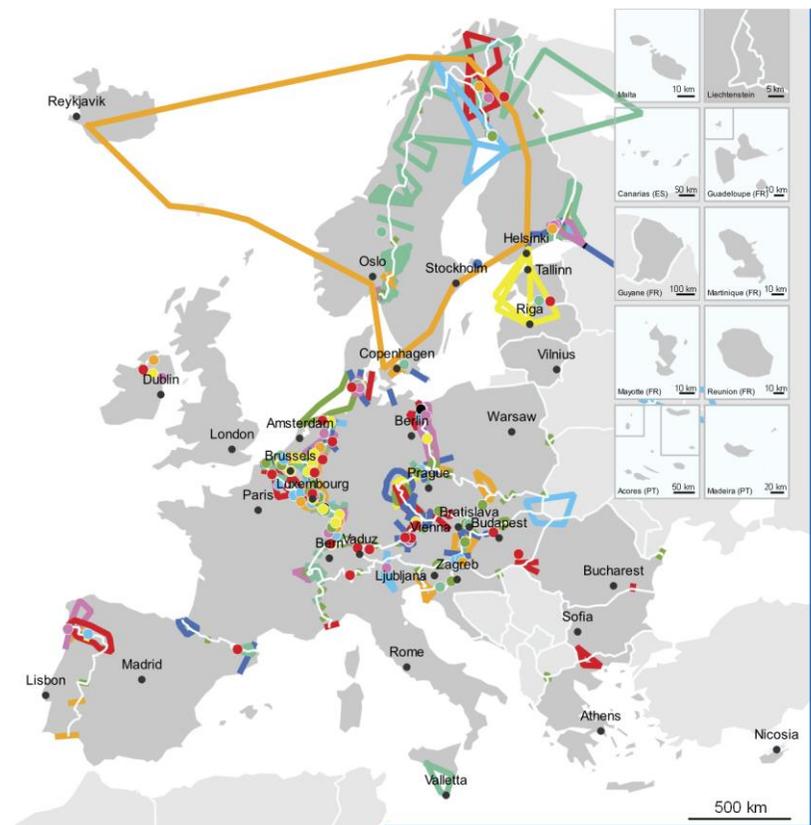
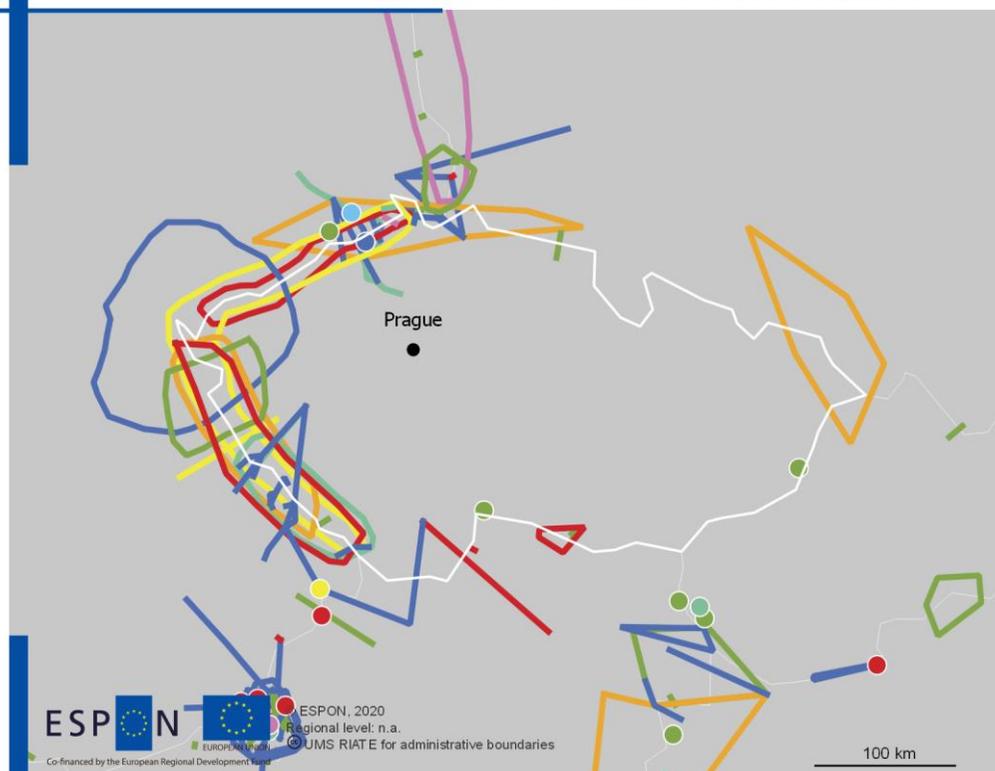
Origin of data: Eurostat, 2020
 Source: ESPON EGTC, 2019

Increasing eGovernment interactions in all Czech regions

Digitalisation of public administration and public services allows for more reliable and mutual interactions with citizens. One can observe substantial disparities in the uptake of eGovernment tools depending on the level of the regional offer (number of services with digital interfaces) and of the regional demand (educational and social capacities to make use of these tools). Western European countries display higher level of eGovernment interaction, with peak values in Nordic countries, France, Switzerland and Austria. Central and Eastern European countries have lower levels of interactions, but some regions are catching up, for instance in Romania, Poland and Greece.

In the Czech Republic, the overall level of interaction has increased over the past years (2014-2019) as all regions are classified as under “high growth” of eGovernment interaction. Internal disparities are tangible with a medium level of interaction in the most urbanised region (Prague and Central Bohemia), in the Southwest and in two regions (Southwest and Moravia-Silesia). The rest of the country follows the low interaction pattern that is dominant in Central and Eastern Europe.

Thematic fields covered by crossborder public services (2018)



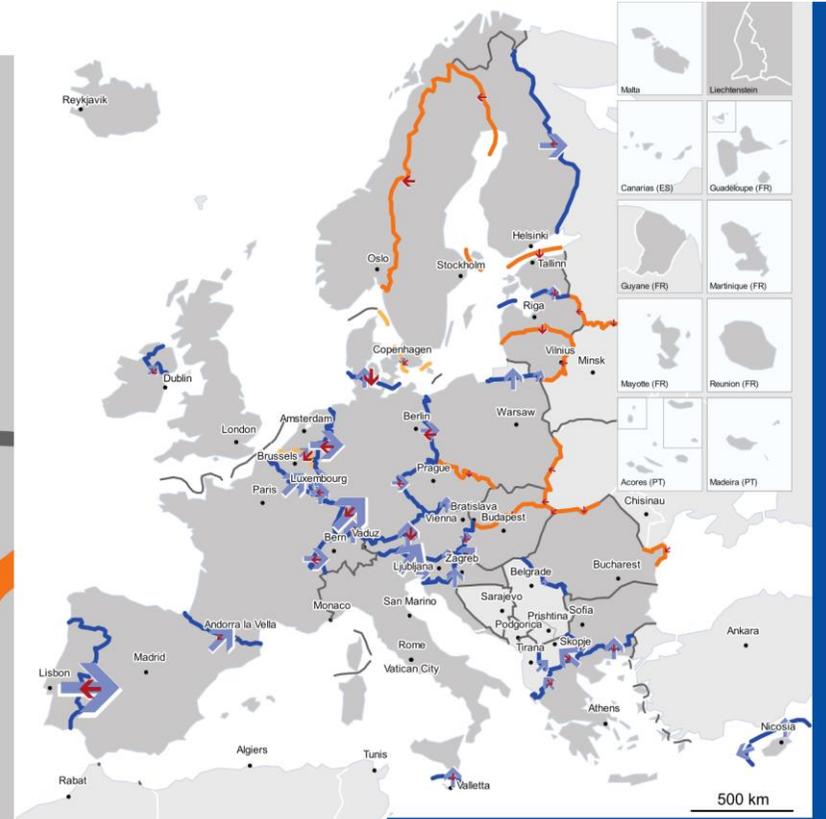
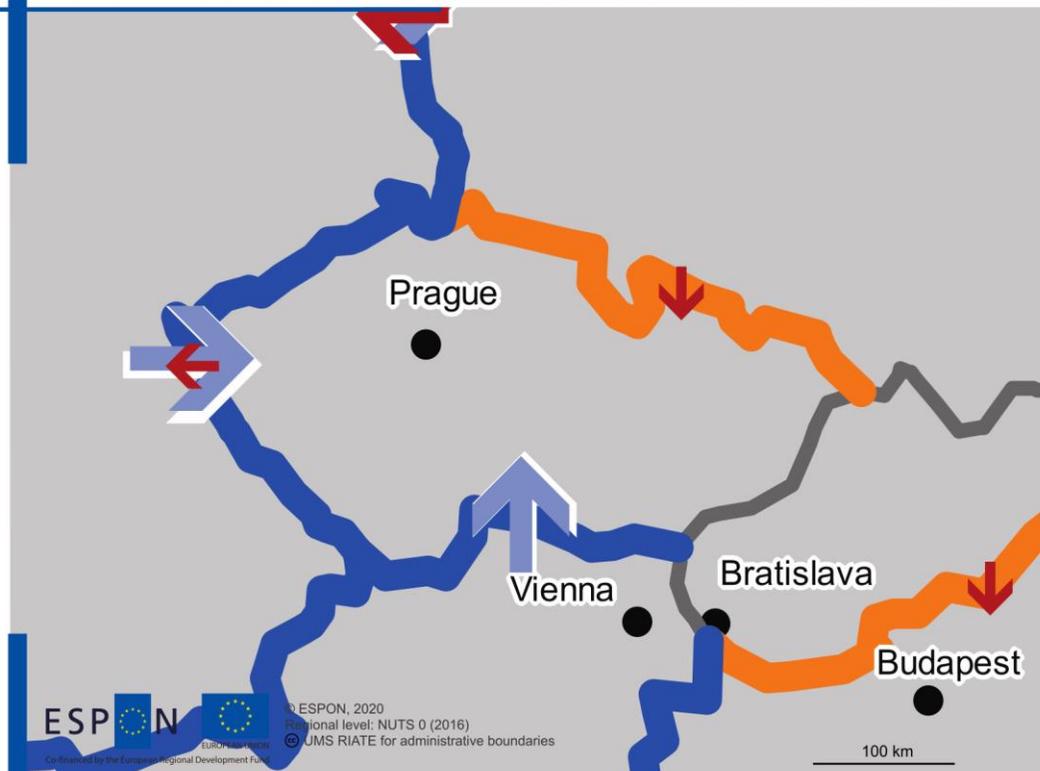
Origin of data: TCP International, 2018; Eureconsult, 2018; various data sources, 2018
 Deinitions: each dot or line represents one individual CPS, provided by two or more partners.

Higher densities of CPS at the German-Czech border compared to other Czech borders

Crossborder Public Services allow to address joint problems or development potentials of border regions and to overcome border obstacles in the provision of public services. CPS are found all over Europe, but they are spread in a rather imbalanced way with more CPS provided at borders of “old” EU15 Member States and between Nordic countries. Most CPS deal with one of the following three policy fields: (1) environmental protection, (2) civil protection and disaster management and (3) transport. Highly integrated solutions are found in regions with a long lasting crossborder tradition.

A high density of CPS at the German-Czech border contrasts with limited CPS development at other Czech borders. At the border with Germany, transport CPS offer bus and rail connections based on a steady cooperation between transport authorities; a number of protected areas are connected through joint programmes; common solutions are found between regions for border water management; and regional labour markets are integrated through initiatives of the EURES network. Besides environmental cooperation, CPS at the borders with Poland and Slovakia include labour market arrangements while CPS at the border with Austria relates mostly to health care and social inclusion.

Needs for crossborder public services assessed by survey (2018)



Assessment of future CPS development needs along European borders

Potentials for future CPS

number of feedback received



positive feedback

negative feedback

— Primarily positive assessment: majority of respondents see needs or potentials for new CPS in future

— Primarily negative assessment: majority of respondents don't see needs or potentials for future CPS

— Ambiguous assessment: no clear view of respondents

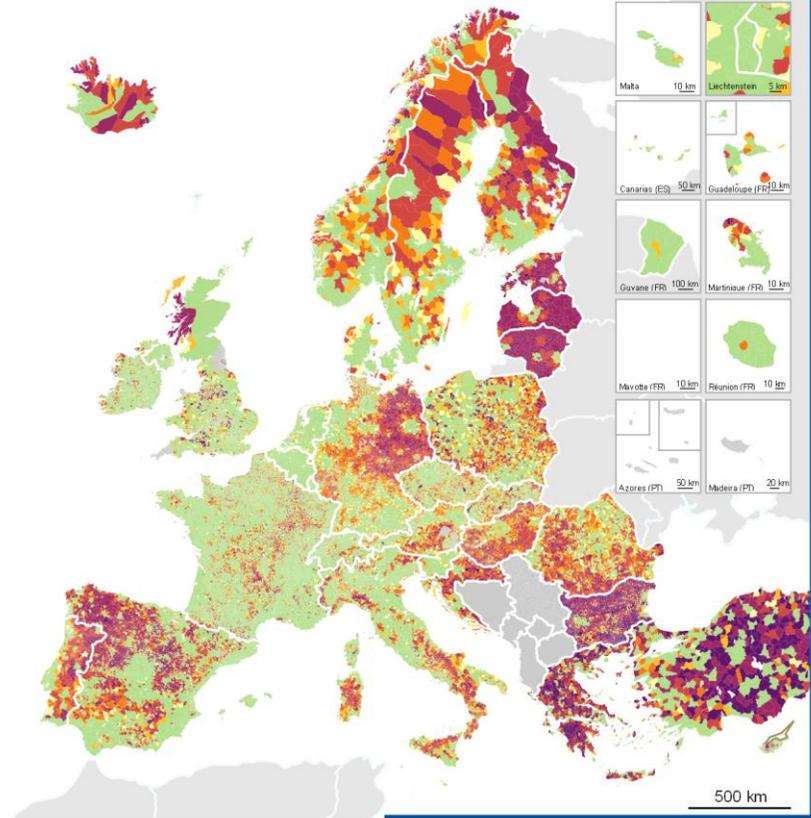
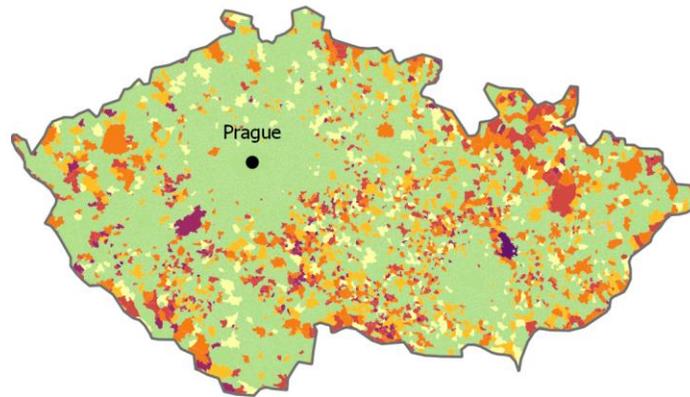
— No responses for these borders

New needs for crossborder public services (CPS) mostly identified at the German-Czech border

CPS development relies on the involvement of local and regional actors from crossborder regions in a bottom-up process. A survey on their assessment of the needs for CPS development was carried out. Survey results suggest that higher needs for CPS development are identified at borders with high population densities where social and economic interactions are more intense, and between countries with a long track record of cooperation (“cooperation leads to more cooperation”). However, there are exceptions. For example, in Scandinavia, low assessment for future needs may indicate a certain saturation with CPS provision. At the Spanish-Portuguese and Greek-Macedonian borders, high assessment may indicate a gradual understanding of CPS benefits

The situation is very diverse at the borders between the Czech Republic and its neighbours. At the German-Czech and at the Austrian-Czech border, the majority of respondents see potentials for new CPS, while at the borders with Poland and Slovakia, assessment is negative or inexistent. This situation is typical of “new” Member States that have strongly established cooperation with Western neighbours while cooperation with other EU12 Member States is scarce.

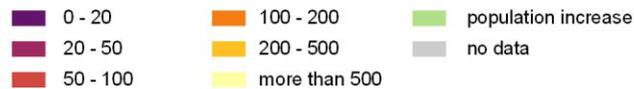
Population halving time (based on 2001-2011 population change)





 © ESPON, 2012
 Regional level: LAU1/2 (2012)
 GISCO and © UNIGE for administrative boundaries
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Estimated halving of population, in years



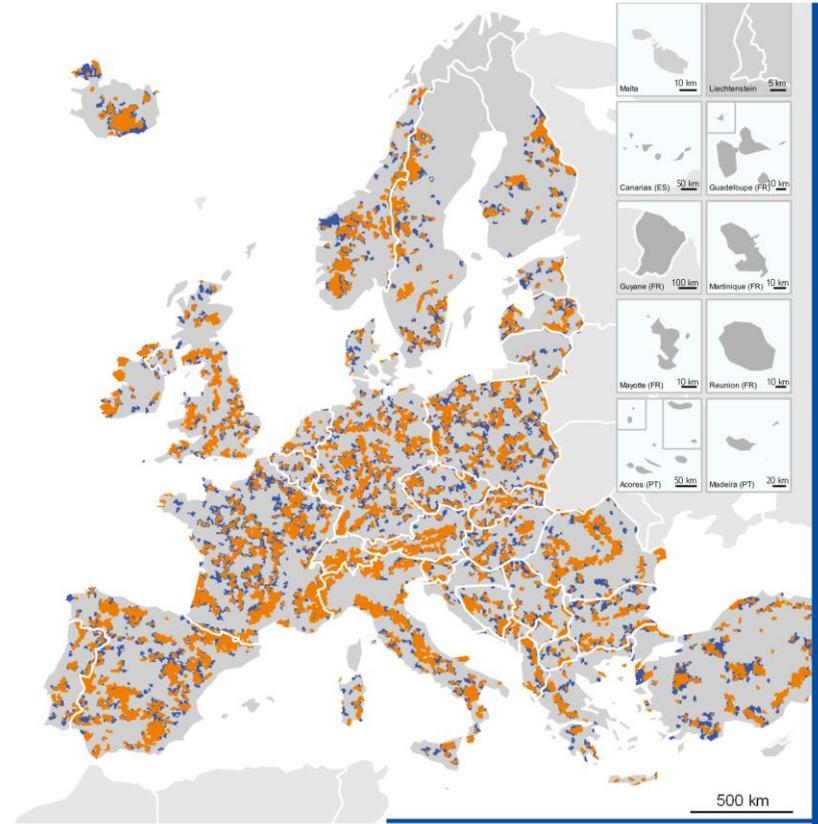
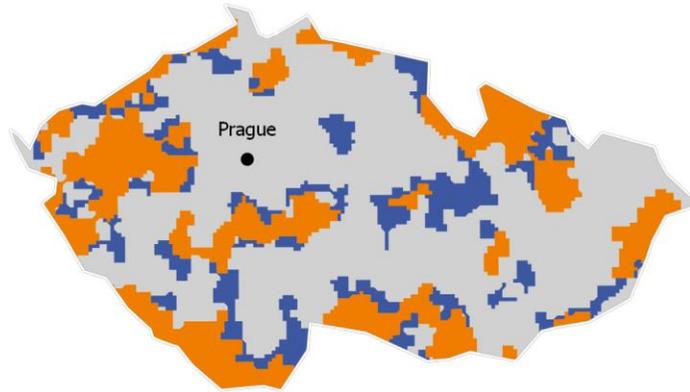
Source: ESPON ESCAPE, 2019
 Origine of data: Eurostat, 2019
 For most countries, data are represented at LAU2 level.
 Data for Denmark, Greece, Lithuania, Malta, Portugal,
 Slovenia and Turkey are represented at LAU1 level.

Mountainous and hilly municipalities most affected by rural depopulation

Gradual population decline is a major issue in a number of rural regions in Europe. It is associated with ageing, closure of basic SGLs (e.g. health service, schools, retail shops) and in a further deterioration of business attractivity. It is especially strong in Northern Scandinavia, the Baltic countries, eastern German States, South Eastern Europe, and a large portion of the Iberic peninsula. In these territories and at the currently observed pace, a majority of local rural units would lose half of their population in less than 50 years. Rural population decline is less of an issue in densely populated regions (e.g. the United Kingdom, northern Italy) and in countries with a dynamic network of small and medium size cities (e.g. in France, Poland, Ireland).

The Czech Republic is less prone to depopulation in its rural parts than its neighbouring regions (e.g. Sudetenland in Poland, South Saxony in Germany). However, some mountainous and hilly areas are facing a demographic decline: in Šumava, in Jeseník Mountains, in Bohemian-Moravian Highlands and Ore Mountains. In these areas, municipalities are unevenly affected: 10 to 20% are strongly declining (halving time < 100 years) while population is growing in other nearby municipalities.

Inner Peripheries according to poor access to services of general interest



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 Regional level: Grid cells (2.5 x 2.5 km)
 © UMS RIATE for administrative boundaries
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100 km

500 km

Inner peripheries according to SGIs

-  Inner peripheries according to access to SGIs
-  Areas at risk of becoming SGIs
-  no data (outermost regions)
-  Not an Inner Periphery

Source: ESPON PROFECY 2017
 Origin of data: TCP International 2017,
 TCP International Accessibility model 2017

Definitions:
 *IP regions include all areas which have poor access to five or more SGIs, and poor access to at least one of these three: hospitals, primary schools, train station.
 *Areas at risk of becoming IP include areas with poor access to three or four SGIs.
 *SGIs considered: banks, cinemas, doctors, hospitals, pharmacies, retail shops, primary schools, secondary schools, train stations, and jobs

A quarter of the Czech Republic identified as inner peripheries

An adequate provision and access to main SGIs not only constitute an indicator of the degree of connectedness of territories, but easy and cheap access to many different types of services ensures higher quality of life, provides choice opportunities for the resident population (if two or more facilities for each kind of service are within reach) and thus contributes to keep population and jobs within the area. IP areas and areas “at risk to become IP” reflect intranational disparities in access to SGIs. These can thus be found in all ESPON countries, with the exception of Cyprus and Malta. These are mostly observed in rural areas and are specifically prevalent in mountain ranges, islands and northern peripheral areas.

In the Czech Republic, approximately 26.2% of the territory is identified as inner periphery according to access to SGIs. Large patches of IP cover the least populated areas of the country: (1) in the West, between Karlovy Vary and Plzen, (2) in hilly parts of Central and Southern Bohemia, (3) in the South of the country at the border with Austria and Germany and (4) in the Jeseník Mountains (north of Olomouc region and Moravian Silesian region).

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