TERRITORIALL.

the ESPON magazine

green infrastructure & reuse of spaces

with contributions from
Claude Turmes, Maria Spyraki, Željko Uhlir

Demographic challenges in the aftermath of COVID-19
Dubravka Šuica, Vice-President of the EU Commission

ESPON
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Table of contents

Introduction

Main thematic dossier

Projects and opinions

Interreg

Outlook

Editorial

Author: Nicolas Rossignol and the ESPON team

On 27 May, we had expected to welcome many of you to Zadar, where our ESPON seminar in cooperation with the Croatian Presidency of the Council of the European Union was to have taken place. But the new normal imposed by COVID-19 requires imagination and different ways of maintaining the social links that we value so much. So, instead of the seminar in Zadar, the EGTC team is offering you the first edition of the ESPON Magazine.

This first edition focuses on a Green Europe, a priority for the Croatian Presidency and for the European Commission. It is also one of the two pillars of the renewed Territorial Agenda that the upcoming German Presidency hopes to see adopted by the end of the year.

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> *Vice President Dubravka Šuica delivers very important food for thought for post-COVID Europe, Linking the EU's priorities for a greener Europe with its demographic challenges,*

ESPON contributes to these debates with two Policy Briefs on Green Infrastructure and on the Reuse of buildings, that we prepared at the request of the Croatian Presidency. These two briefs are supported by additional contributions from researchers and policy-makers. Among these, we are honoured to share with you messages sent by Claude Turmes, Minister for Energy and Minister for Spatial Planning in Luxembourg; Željko Uhlir, State Secretary for Construction and Physical Planning in Croatia; and Maria Spyraki, member of the European Parliament and co-chair of the Intergroup on Climate change.

But, above all, we are very proud that this first edition also hosts a special message from Vice-President of the European Commission and Commissioner for Democracy and Demography Dubravka Šuica. Linking the EU's priorities for a greener Europe with its demographic challenges, she delivers very important food for thought for post-COVID Europe.

Because the elephant in the room is the pandemic. As restrictions are now being lifted, national governments and European institutions are taking the lead to find answers to the economic crisis. Yet regional and local authorities are also putting mechanisms in place and adapting their services to better support citizens and businesses.

It can be argued if Europe was prepared for this pandemic. In any case, there are many examples of innovative and creative approaches from local authorities.

This is why the ESPON EGTC started to pool local experiences and territorial policy responses from March 2020, with the idea of supporting further monitoring of the territorial impact of the crisis and policy responses to it for the future.

At the end of May 2020, the ESPON website references more than 30 European organisations and institutions that collect best practices and offer resources (information and/or financing) to local authorities.

> *The presence of our community throughout the following pages is our means of expressing our gratitude and giving credit to those who embody the reality of a cooperation programme.*

While reading about new insights from our ongoing and recently finalised ESPON projects, you will also discover how we are touching upon different aspects of the COVID-19 crisis. From elderly people to tourism and from rural areas to urban environments, ESPON projects deliver some first information on the territorial impacts in different sectors of the economy and social life.

We wanted it to be open as much as possible to our community: the members of our Monitoring Committee, representing the Member and Partner States of the ESPON programme; the ESPON contact points; the officials from the EU institutions and the policy-makers from local governments who are engaged in our projects; and, of course, the researchers who deliver ESPON research activities. Their presence throughout the following pages is our means of expressing our gratitude and giving credit to those who embody the reality of a cooperation programme.

We hope that you will appreciate the result.

As for the seminar, we will certainly miss the opening debate, the networking sessions and our talks during the coffee breaks. But let's try to bring this atmosphere to social media and our website. You can post comments and ask questions related to the topics debated in the magazine using the hashtag #ESPONmag. We will collect all your input and our authors will come back to you with their answers to your questions.

And, we hope, we will all meet again in Berlin for the November 2020 seminar.

Enjoy reading the magazine.

Dubravka Šuica: How can we support people and regions to adapt to changing realities?

Dubravka Šuica is Vice President of the European Commission for Democracy and Demography.
She is leading the Commission's work on responding to challenges and making the most of the opportunities brought by demographic change. She will soon present a report on the impact of demographic changes that will also identify the support required to address it, such as investment in infrastructure and access to services for those most vulnerable.
Ms Šuica is also coordinating the work on a long-term vision for rural areas, including on additional effects like the lack of connectivity and the risk of poverty. She is also leading the preparation of a Green Paper on ageing as a first step towards a wide debate on longterm impacts, notably on care and pensions, and on how to foster active ageing.

Better understanding of demographic structures can help local authorities organize successful recovery plans

The work on demographic change plays an important role in the aftermath of COVID-19 and in supporting long-term growth, managing both the present and the future.

A forthcoming long term vision for rural areas will give a tangible signal to citizens that we don't intend to left them behind"

Željko Uhlir: A strong Europe in a world of challenges

Željko Uhlir is State Secretary at the Ministry of Construction and Physical Planning of Croatia. The country is holding the Presidency of the Council of the EU during the first semester of 2020.
The Presidency included 'green Europe" in its priorities, in tthe context of sustainable growth and development. In this framework it was assigned to ESPON to prepare two policy briefs that provide possible solutions on the implementation of green infrastructure and the model of circular use of spaces and buildings more effectively.
These topics are included in the specific policy priorities and the new thematic focus of our Ministry of Construction and Physical Planning that already implements two relevant programmes in Croatia.

The European Green Deal is not only a growth strategy, but also the foundation of the EU's recovery strategy

The motto of the Croatian Presidency is not only a message but a solution: "A strong Europe in a world of challenges". The only way we can successfully respond to all the challenges is to work together

Foreword

Author: Normunds Popens, European Commission

The current pandemic has added to the numerous challenges and changes that Europe is facing today. It has made us change drastically the way that we live and it will have a direct effect on European territories. It will be more important than ever to bring people and nations closer together, not only to continue our cooperation on mitigating climate change, encouraging digital transition and adjusting to demographic changes but also to face new realities that the coronavirus has brought upon us.

Cohesion policy is on the front line when it comes to responding to these changes and the needs of the Member States and regions, whether through the current crisis response initiatives or by supporting the economic recovery plan. Together with other EU Funds, the European Regional Development Fund and the Cohesion Fund have addressed the diverse needs in EU regions and cities. Urban or rural, large or smaller, cities and communities have all significantly benefited in the past, and the new multiannual budget of the EU will bring even more opportunities.

> *ESPON is putting great efforts into a key challenge, namely translating scientific evidence and the language of scientists and researchers into the language of policy-makers*

Cohesion policy is one of the main investment mechanisms at EU level, but it is more than just finance. It has a strong impact on the delivery of just, economic and sustainable transitions on the ground; it promotes reforms and good governance; it builds the capacities for all actors. As much as there is a lot of pressure on national governments to tackle the crisis, solutions can be found together with local and regional governments in new governance approaches by putting in place genuine partnership mechanisms based on bottom-up and multilevel governance approaches.

Cohesion Policy provides a framework for cooperation at different territorial levels, for integrated territorial and local development strategies and for participative approaches. It supports the balanced development of all territories across the EU and results in real changes on the ground that benefit people, companies and the environment.

In spite of the challenges, the crisis has brought opportunities to accelerate the transitions to a digital, green and just Europe and to make our economies and communities more resilient and sustainable. However, not all regions have the same capacity to respond to the current crises and continue with these transitions. That is why Cohesion Policy is there: to help all regions and make sure that no one is left behind.

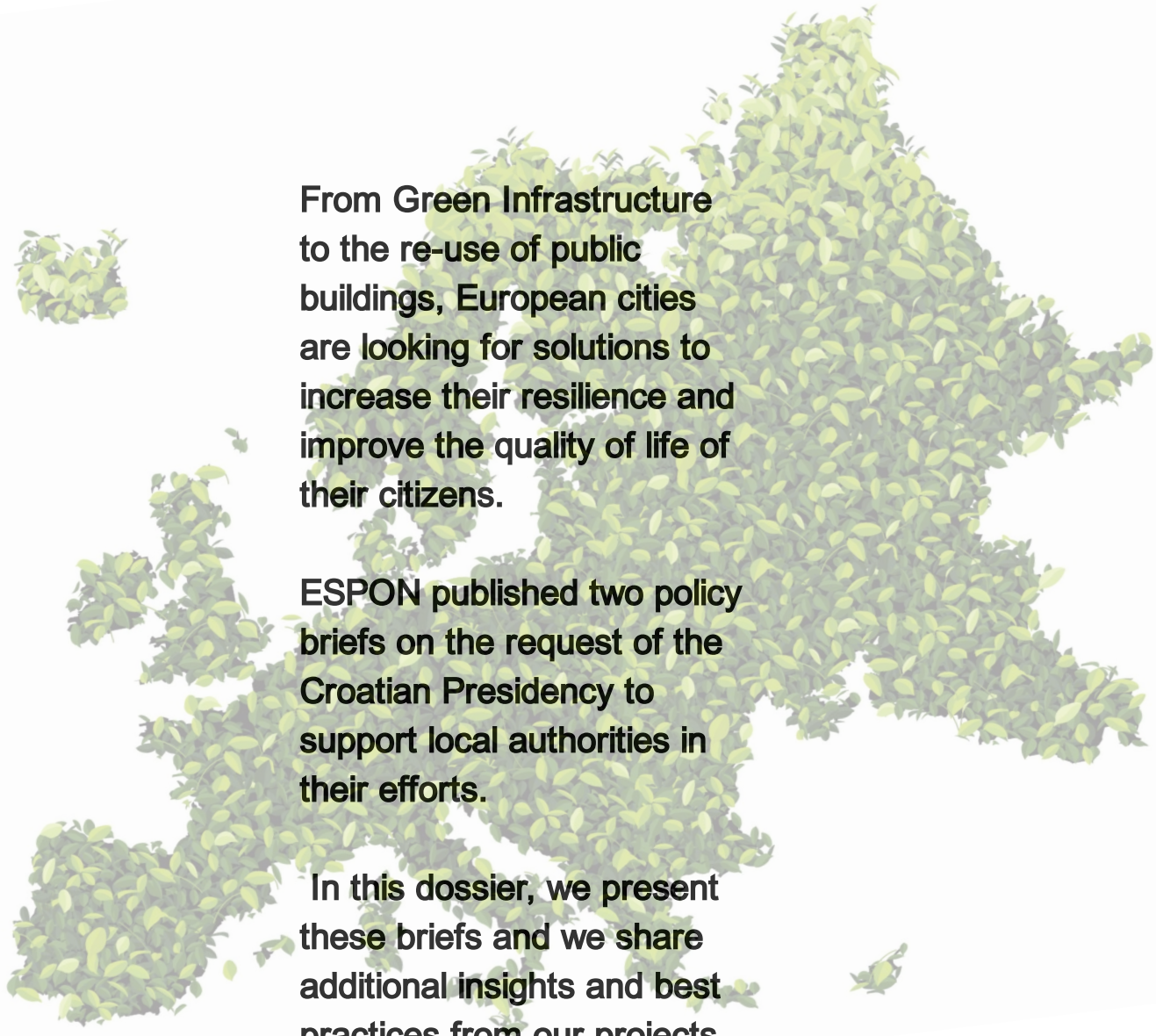
> *Cohesion Policy supports the balanced development of all territories across the EU and results in real changes on the ground that benefit people, companies and the environment.*

We strive to drive positive change in citizens' lives and to support job creation and business competitiveness while protecting our environment. It is the responsibility of all of us to take the opportunity to rethink the way we work, commute, travel and use energy, how we transit to a circular economy and sustainable tourism, and how we support sustainable food production. We will need innovative solutions to restart our economies while keeping Europe on track for inclusive and sustainable growth that reduces disparities between EU regions and works towards meeting our environmental targets set by the European Green Deal and abandoning our polluting and unsustainable habits.

Therefore, today, when public resources are limited, informed policy-making based on quality evidence is more crucial than ever when it comes to responding with the right policies to the different development challenges that our regions and cities are experiencing.

Programmes such as ESPON serve this ambition to help a broad audience of policy-makers at EU, national, regional and local levels to make the right policy choices at all stages of the policy process, from design and implementation to monitoring and evaluation. In addition, ESPON is putting great efforts into a key challenge, namely translating scientific evidence and the language of scientists and researchers into the language of policy-makers. Innovation in communicating the outcomes of studies to policy-makers is a vital part of the successful transmission of research findings in policy-making. This online magazine is a clear example of how ESPON is able to communicate its results and reach out to its audience.

Thematic Dossier



From Green Infrastructure to the re-use of public buildings, European cities are looking for solutions to increase their resilience and improve the quality of life of their citizens.

ESPON published two policy briefs on the request of the Croatian Presidency to support local authorities in their efforts.

In this dossier, we present these briefs and we share additional insights and best practices from our projects.

Claude Turmes: Using ESPON in Policymaking

Claude Turmes is Minister for Energy and Spatial Planning of Luxembourg. He is leading the country's energy policy with the aim of accelerating the energy transition, strengthening territorial resilience and reducing national dependency. Former MEP, he is a recognized expert on energy. He recently stressed the importance of establishing Green Recovery Investment Plans: "By reinventing the European Union's industrial base in the field of solar and wind energy we can not only contribute to a sustainable recovery and accelerate the energy transition, but also strengthen our resilience and independence from countries such as China or Russia and from fossil fuel imports". As Minister for Spatial Planning, he also ensures the coordination of cross-border and international sectoral policies on behalf of Luxembourg (including the Managing Authority of the ESPON 2020 Cooperation Programme).
In this context, he recalls in his message the importance of some recent ESPON research findings:

ESPON ACTAREA project helped us to structure our cross-border metropolitan area and COVID19 had shown how important it is to keep open our borders

ESPON GRETA project has been a forerunner to describe how to integrate biodiversity and climate challenges into spatial planning policies

ESPON MSP-LSI study has brought together very valuable concepts in order to include off-shore winds in the North and Baltic seas that are now widely implemented

Regenerating cities: The critical role of buildings

Author: Maria Spyraki, MEP

The European Green Deal represents a path towards climate neutrality with the key objective being to deliver concrete results to help regions become safer, cleaner and more comfortable places for people and business, as well as to empower consumers to make sustainable choices for their benefit and that of the environment. In brief, the European Green Deal is the roadmap that sets out deeply transformative policies at regional and national levels.

One of the axes of the European Green Deal is the reform of the EU building stock. The building stock is responsible for 36% of CO2 emissions in Europe, while the vast majority of buildings (at least 75%) are still energy inefficient. The majority (97%) of the existing building stock requires major upgrades to meet 2050 decarbonisation targets.

At today's rate of 1% each year, it would take a century to upgrade the building stock to new, nearly zero-energy levels, with no further action. Moreover, the significance of buildings is highlighted when direct emissions are combined with indirect CO2 emissions from electricity use as energy consumed by buildings contributes approximately 40% of total energy consumption around the world. Renovating existing buildings could reduce the EU's total energy consumption by 5–6% and lower CO2 emissions by about 5%.

Therefore, we need to ensure a reduction in energy demand from the built sector. The EU has introduced an energy efficiency policy with the decarbonisation of the European built sector as a priority.

> *Reaching the goals of 2050 is not an easy scenario. We need to mobilise public and private investments. The European Green Deal Investment Plan will provide around EUR 500 billion from the EU budget, but we will need at least EUR 1 trillion of investment to achieve the desirable neutrality.*

Furthermore, the forthcoming renovation wave will be an opportunity to achieve an energy-efficient and climate-neutral building stock by 2050, as well as to tackle energy poverty and to provide healthy, decent, affordable and energy-efficient buildings where people can reach their full potential, in line with the European Green Deal.

The renovation wave may help to mitigate the impact of the COVID-19 crisis, by supporting workers in small and medium-sized enterprises and fostering high-quality jobs in the construction and renewable energy industries. In addition, the new Energy Performance of Buildings Directive aims to increase the smartness of the future building stock, including its ability to interact with other sectors to generate added value for European citizens.

Measures will include energy building passports and other inspection schemes for heating and cooling systems; support for electro-mobility by introducing minimum requirements for car parks at smaller buildings; use of smart technologies; upgrading of indoor environmental conditions, including indoor air quality; and helping to tackle energy poverty.

From the above, it should be evident that technology and design are at the heart of efforts to enable the built sector to achieve sustainability.

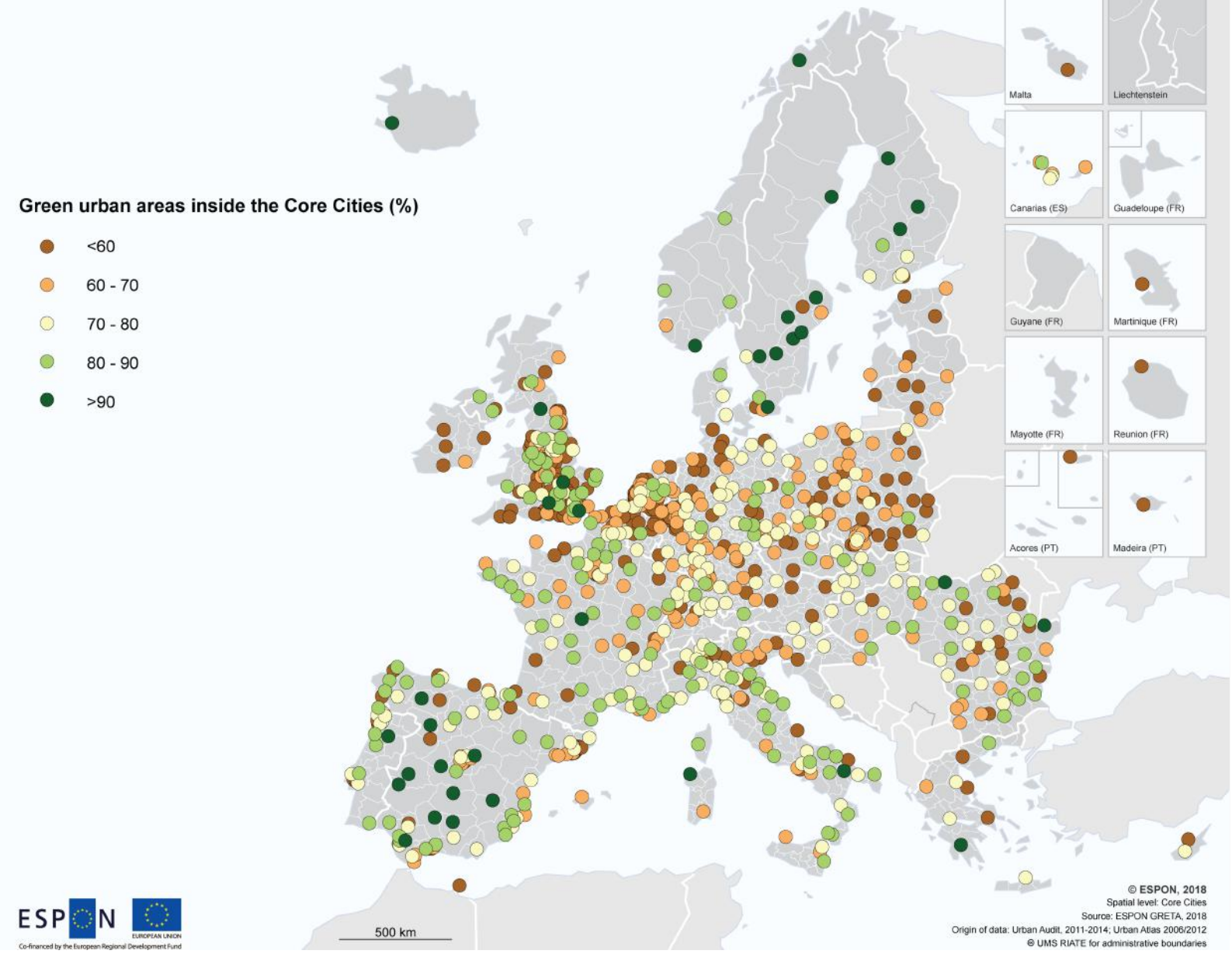
Energy efficiency actions for buildings can be considered significant opportunities to implement cost-optimal solutions. The International Energy Agency has reported that energy savings of 500 Mtoe per year worldwide could be achieved through multiple cost-effective technologies between 2020 and 2050. Moreover, energy renovations and high-performance building construction could reduce the building sector's energy use by nearly 30% by 2050. Also, a further reduction could be delivered through digitalisation and smart demand-side management in buildings.

Of course, reaching the goals of 2050 is not an easy scenario. We need to mobilise public and private investments. The European Green Deal Investment Plan will provide around EUR 500 billion from the EU budget, but we will need at least EUR 1 trillion of investment to achieve the desirable neutrality. The European Investment Bank Group, in particular, is expected to provide loans, guarantees and financial instruments, such as Private Finance for Energy Efficiency and the Smart Finance for Smart Buildings guarantee facility. Moreover, in that framework, InvestEU is expected to finance small-scale, cost-effective social housing renovation initiatives and services. These funding sources have different mechanisms and requirements, but it is hoped that, through EU investments, private organisations will be encouraged to invest.

> *Transforming our buildings means that our cities will be scaled up and regenerated.*

Transforming our buildings means that our cities will be scaled up and regenerated. That urban transformation with sustainability benefits that include social, capital and human investments combined with investment in transport and telecommunication infrastructure for sustainable economic development is, in fact, sustainable territorial development. This city regeneration will require not only reusing spaces and reforming buildings but also significant shifts in technology and political regulations such as pricing regimes and tariffs, as well as behavioural changes of users and adopters. The speed at which regeneration can take place is a vital element for consideration.

All in all, the focus should be on how to transform problems into economic, social and technological opportunities to regenerate cities. It's not an easy task! Reaching the goal will require substantial changes and investment in technical infrastructures, urban physical planning and service provision, which in many cases are local and regional competences. Above all, there is a need for a significant change in consumer behaviour to make the demand for energy, and thus our daily lives, more sustainable.



Green Infrastructure in urban areas

Author: Michaela Gensheimer

What is green infrastructure?
Green infrastructure (GI) has become prominent in spatial planning, policy and research over the last few decades. It is widely understood as a network of physical features that provides ecological, economic and social benefits to society through nature-based solutions (NBS), underpinning human well-being and quality of life.

Why is green infrastructure important for cities?
More and more cities struggle with the challenges of unsustainable urbanisation and related human health issues, degradation, and the loss of natural capital and the ecosystem services it provides. The creation, conservation and management of GI in urban areas can play a key role in addressing these developmental challenges. Potential benefits derived from GI include the mitigation of urban heat island effects, flood risk reduction, the absorption of CO2 (the emissions of which can be extensive), the provision of sustainable transport options (e.g. walking and cycling lanes), and generally improved mental health and well-being.

Rather unsurprisingly, European cities in general have more green space in their surrounding areas than in their centres. Approximately 100 European cities have as much green space in the core city as in the commuting zone. Cities that have more green space in their core than in their hinterland are distributed across several European countries, but most of these cities are in Spain and the United Kingdom.

What do cities need to implement green infrastructure?
According to a stakeholder survey conducted within the framework of the ESPON GRETA (Green Infrastructure: Enhancing Biodiversity and Ecosystem Services for Territorial Development) project, the main factor that supports the process of implementing GI is strategic vision. Such a vision is ideally implemented through taking a GI approach to planning that integrates different sector policies and different levels of governance. Stakeholders also need sufficient knowledge and training to be able to fully tap into the potential for GI development.

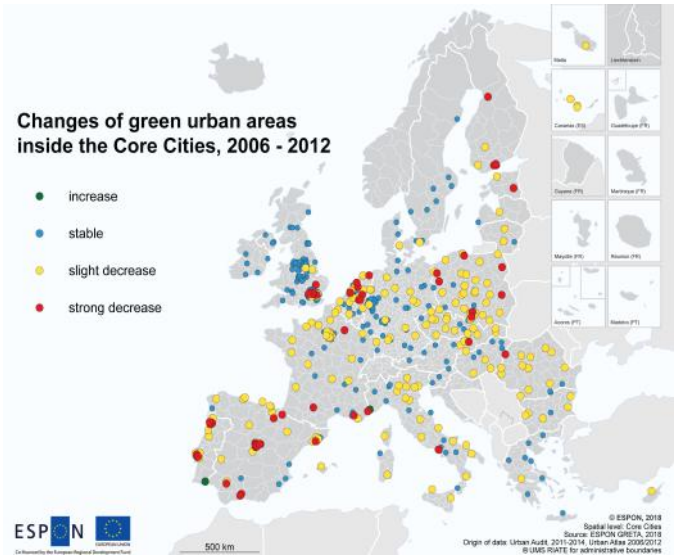
How can cities finance green infrastructure?
Local authorities tend to have the main responsibility for implementing GI in Europe because of their remit of planning and investing in urban infrastructure. This means that they can choose between investing in grey or green infrastructure, giving them a key role in stimulating GI development.
The private sector also has an important role to play in GI investment and the development of innovative 'green' technologies in general. Likewise, partnerships between public authorities and the private sector can offer opportunities for GI implementation.

Map on the left: Share of green (and blue) urban areas for all core cities in Europe. It is clear that many European cities (including their commuting zones) are relatively green, and many comprise more than 80% green areas.
There is a concentration of core cities with lower shares of green (and blue) urban areas in a corridor from the United Kingdom, over the Benelux countries and Germany to the north-eastern part of Europe (Poland and the Baltic countries).
Other clusters of cities with relatively low shares of green urban areas are visible in northern Italy and Romania.
The highest shares of green urban areas inside core cities are recorded in Spain and the Scandinavian countries.

There are two main options for financing GI that can be, but are not necessarily, building blocks for GI in urban areas:
Direct implementation or maintenance of relevant projects, especially on municipality-owned land. The municipality pays for the intervention, either through funds it already has or by obtaining loans and revenues to finance the project.
Indirect implementation of projects by encouraging other actors, e.g. residents, utility providers or businesses, to implement the intervention on their private property. Local authorities could also contribute to the maintenance of the existing GI in the public domain. In this case, they would provide incentives to other stakeholders or stimulate private finance by other means.

Read more:
Policy Brief-Green Infrastructure in urban areas

What role can strategic environmental assessment play in green infrastructure management and planning?
Strategic environmental assessment (SEA) is a tool based on an EU directive that ensures the integration of environmental assessment into the preparation and adoption of all strategies, plans and programmes at the earliest opportunity. The ESPON GRETA project identified SEA as an example of a policy tool suitable for incorporating GI into strategies, plans and programmes.
Including GI in SEA could help to establish a common framework for implementing GI in all EU Member States. This framework not only should promote GI as a sectoral element of planning, but should contribute to enhancing strategic thinking and the positioning of ecological processes and their benefits as relevant planning criteria for more resilient territorial development.



Map above: changes in the shares of urban green spaces between 2006 and 2012. In general, cities with stable or decreasing shares of green space dominate the map.
While a stable situation is more prevalent in central and north-western Europe (in particular in Belgium, Germany and the United Kingdom, but also in the Alpine countries), a large proportion of cities with decreasing shares of green space can be observed in eastern and southern European countries, as well as in Finland and the Netherlands.
The Spanish cities of Pamplona (–7.8%) and Getafe (–7.6%), and Communauté d'agglomération de Sophia Antipolis in France (also –7.6%) experienced the largest decreases in shares of urban green space.
The share of urban green space increased in only three cities: Faro (Portugal, +3.3%), Nice (France, +2.3%) and Capelle aan den Ijssel (the Netherlands, +0.7%).
In eastern and southern European countries, the most likely reason for the decline in the share of urban green areas is urbanisation due to economic development after these countries joined the EU (eastern Europe) or for touristic purposes (southern Europe).

Green infrastructure as an asset for climate change adaptation and disaster risk management

Authors: Carolina Cantergiani, Gemma Garcia Blanco

It is widely accepted that integrating green infrastructure (GI) considerations into governance and planning processes can have significant positive effects on regional development, climate change adaptation (CCA), disaster risk management (DRM), agriculture/forestry and the environment.
The ESPON GRETA (Green Infrastructure: Enhancing Biodiversity and Ecosystem Services for Territorial Development) project ( ) adopted a mixed-methods approach to investigate GI. It focused on both the physical (delineation of natural and semi-natural areas) and functional (provision of ecosystem services (ESs)) dimensions of GI, and the findings offer new knowledge and recommendations for implementing GI via multilevel governance mechanisms and cross-sector policies and planning.

> *One of the most innovative approaches used in the GRETA project was the assessment of the GI contribution to policy objectives related to biodiversity, climate change and disaster risk reduction, and water management in the European context.*

One of the most innovative approaches used in the GRETA project was the assessment of the GI contribution to policy objectives related to biodiversity, climate change and disaster risk reduction, and water management in the European context. From the perspective of functioning natural systems, these three policy areas are among those that most benefit from adopting systematic and integrated strategies that include a consideration of ESs in their operational settings. We analysed the supply of and demand for GI and ESs at the regional level in relation to these three policy areas.
This analysis revealed the potential for deploying GI and promoting ecosystem-based approaches as integral parts of CCA and DRM plans. Particularly in the preparedness phase of DRM, GI and ESs are crucial assets that can enhance a region's response capacity and resilience to natural hazards. Further studies and analyses are still required, though, on smaller scales and with recent high-quality data, to provide evidence to inform more responsible and cost-effective planning decisions.

It's all about evidence
GI improves quality of life in many ways through its environmental, social and economic impacts, which derive from the multiple uses of natural assets and in turn provide numerous benefits (often described as multifunctionality). By maintaining healthy ecosystems, reconnecting fragmented natural areas and restoring damaged habitats,

GI offers an economically viable and sustainable means of delivering goods and services, and addresses multiple policy objectives.
Examples include the role of ecosystems in regulating water flows (reducing the need for investment in flood defences), in sequestering carbon, in reducing heat island effects and in improving people's health. In any case, GI planning should consider synergies among ESs and how to avoid unwanted side-effects (trade-offs).
However, as the introduction of the GI concept, and its implementation, in Europe is relatively recent, long-term analyses (covering 10–15 years) are not yet available.
Furthermore, most studies analyse the role of GI and ESs in reducing the impacts of natural hazards and climate change at the site or local level within urban areas. Not many studies are available at regional level, though.

> *By maintaining healthy ecosystems, reconnecting fragmented natural areas and restoring damaged habitats, GI offers an economically viable and sustainable means of delivering goods and services, and addresses multiple policy objectives.*

Therefore, monitoring progress and evaluation remains a barrier to developing effective and adaptive management measures.

New projects rowing in this area

The recently launched ESPON project TITAN (Territorial Impacts of Natural Disasters) aims to contribute to enabling the abovementioned monitoring of progress and evaluation. The project aims to develop a two-step methodology for assessing the direct and indirect economic impacts of natural disasters. Step 1 is a wide-scale methodology that uses existing data covering Europe; step 2 is a more focused methodology for the regional/local scale.
TITAN will also provide an overview of the trends and territorial patterns of natural hazards occurring in different types of European regions as an update of previous ESPON work, i.e. the ESPON Hazards and ESPON Climate projects.
We will explore good practices in DRM and CCA at different territorial levels. These findings will support policy recommendations to include considerations of the territorial vulnerability and economic impacts of natural hazards in both DRM and CCA strategies as part of integrated place-based spatial development planning.

Green infrastructure could facilitate cross-scale and cross-stage collaboration between disciplines

GI could be used as a mechanism for further collaboration between different disciplines, including spatial planning, DRM and CCA. GI is an asset for adaptation, capacity building and knowledge exchange, and can help to build a common understanding among professionals operating at different implementation stages and on different scales. Such collaboration is especially important for adapting governance and management in territories that are not necessarily confined to traditional administrative borders, such as watersheds, biogeographical regions or functional regions.

ESPON GRETA resources for policy-makers and practitioners

In a series of three briefings, the ESPON GRETA project provides resources for those interested in understanding and integrating the benefits and challenges of GI in decision-making, addressing how to:

think more strategically about GI and ESs, to inform spatial and urban planning;

consider GI as an integrated concept and approach to knowledge-based decision-making.

These resources are relevant for individuals making decisions on the monitoring, planning and development of GI on all scales – urban, peri-urban and rural.

GRETA Briefing 1 explores the key features of GI, and analyses the main benefits and challenges in environmental, social and economic terms. It provides practical examples of how cities and regions throughout Europe use GI, to illustrate the many different reasons to create or enhance GI and to integrate GI activities into policy-making.

GRETA Briefing 2 delivers insights on how the GI and ESs concepts and approaches could be operationalised best in the context of a strategic environmental assessment.

GRETA Briefing 3 provides an overview of the methods developed for and used in the GRETA project; these are applicable to considerations in relation to GI and ESs. Methods could be applied on all scales, depending on data quality and availability.

The GRETA project's findings and the tools, policies and processes suggested for implementing GI that were found to be appropriate for CCA and DRM are listed below.

Diagnosis: methods for the assessment of the current state of GI are provided, for instance for assessing what natural and semi-natural features are currently present in a geographical area. By identifying these elements and understanding their states and capacities to supply specific ESs (multifunctionality) that support policy objectives, it would be possible to identify the potential of GI as an asset for CCA and disaster risk reduction (i.e. recreational areas or farming systems in flood prone areas; sustainable forest management for soil erosion control and stabilisation; urban greenery to mititgate heat stress).

Evaluation and prioritisation of actions: GRETA also provides methods for prioritising actions and identifying investment opportunities. A cross-sectional analysis of the vulnerability and risk maps (i.e. flooding, heat stress, desertification, soil erosion, wildfires, etc.) with the potential GI, and a quantification of the ESs provided would allow the prioritisation of interventions to mitigate impacts by (1) enhancing and maintaining the current GI and its services (i.e. risk preparedness); and (2) creating new GI where it is currently lacking (i.e. response and reconstruction). Economic valuation methods could also be used to gain evidence-based information and to identify opportunities for action and investment that would allow adjustments to the supply of ESs, to cope with a particular hazard through GI without compromising its multifunctionality.

Informing decision-making: the prioritised actions and opportunities can inform decision-making and investments, assisting a cost–benefit analysis of actions, while keeping in mind synergies and trade-offs between ESs provided by GI.

Good practice example of green infrastructure for climate change adaption and disaster risk management: the Basque Country

The spatial planning guidelines of the Basque Country explicitly recognise GI as relevant for CCA and sustainable territorial development. The Basque Country has a mature spatial planning system, which allows the incorporation of operational measures to cope with climate change, and the choosing of scientifically based and responsible action. It is markedly a cross-cutting policy that includes the deployment of other policies, and it coordinates the actions of the region's administration, on multiple scales (regional, supra-municipal and local), and other local stakeholders.

The key elements of the spatial planning guidelines of the Basque Country that articulate GI, ESs, CCA and DRM are:

natural capital and GI are key elements of the existing territorial model and the proposed spatial development strategy and regulation;

the implementation of the EU Floods Directive and the Basque Country's related flood management plan, which have important nature-based solutions and ecosystem-based interventions, is anchored in binding land use regulation;

climate projections and municipal climate risks are included as part of the guidelines' baseline information, being among the regulated land use limitation factors in spatial planning on the intermediate and local scales;

GI is specifically promoted as one of the key approaches to CCA and DRM in spatial planning on the intermediate and local scales, as a mechanism to regenerate ecosystems and maintain and improve territorial resilience.

References

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Climate Change Adaptation in the Spatial Planning Instruments in the Basque Country Region: review of the Spatial Planning Guidelines

Climate Change and Spatial Planning in the Basque Country

Good practice examples of implementing GI and nature-based solutions in the Basque Country:

creating an urban green infrastructure, or 'Green Belt', in Vitoria-Gasteiz

creating a linear parc in Nervión

Green Infrastructure in the Netherlands: a policy-maker's perspective

Author: Marcia van der Vlugt

I was asked to reflect on the ESPON Policy Brief 'Green Infrastructure in Urban Areas' from the point of view of a policy-maker in the Netherlands. The thing that immediately struck me is the sentence: 'In terms of the distribution of values, there is a concentration of core cities with lower shares of green (and blue) urban areas in a corridor from the UK, over the Benelux countries, to Germany and the north-eastern part of Europe (Poland and the Baltic countries).'

Based on this research, it seems that we, as policy-makers in the Netherlands, need to step up action to create green and blue spaces in urban areas. But, for me, this research contradicts what I see as the reality in the Netherlands. The thing I love most about living in the Netherlands, besides the fact that the bike is such an important mode of transport, is the fact that, by bike, no matter where you live, in about a quarter of an hour you are in a green area.

Polycentricity and concentration have been core principles of Dutch spatial planning for decades. We have buffer zones to separate cities from each other, a three-step system ( ) for sustainable urbanisation and a vast green agricultural area, the 'green heart', within our most densely populated area. This type of planning has led to the aforementioned benefit of being close to green space wherever you live, and also to less sprawl.

But does this automatically entail the non-sustainable urbanisation of core cities as defined within the ESPON ESPON GRETA (Green Infrastructure: Enhancing Biodiversity and Ecosystem Services for Territorial Development) project? Maybe it is not that black and white. The book Amsterdam Urban Jungle – Unseen Nature (Lemmens et al., 2017) highlights the amount of wildlife that can be found in the city of Amsterdam, a city that has, by the way, a dedicated tree specialist. I became aware of the importance of trees while working as alias programme manager for the incentive programme for spatial adaptation within the Dutch delta programme.

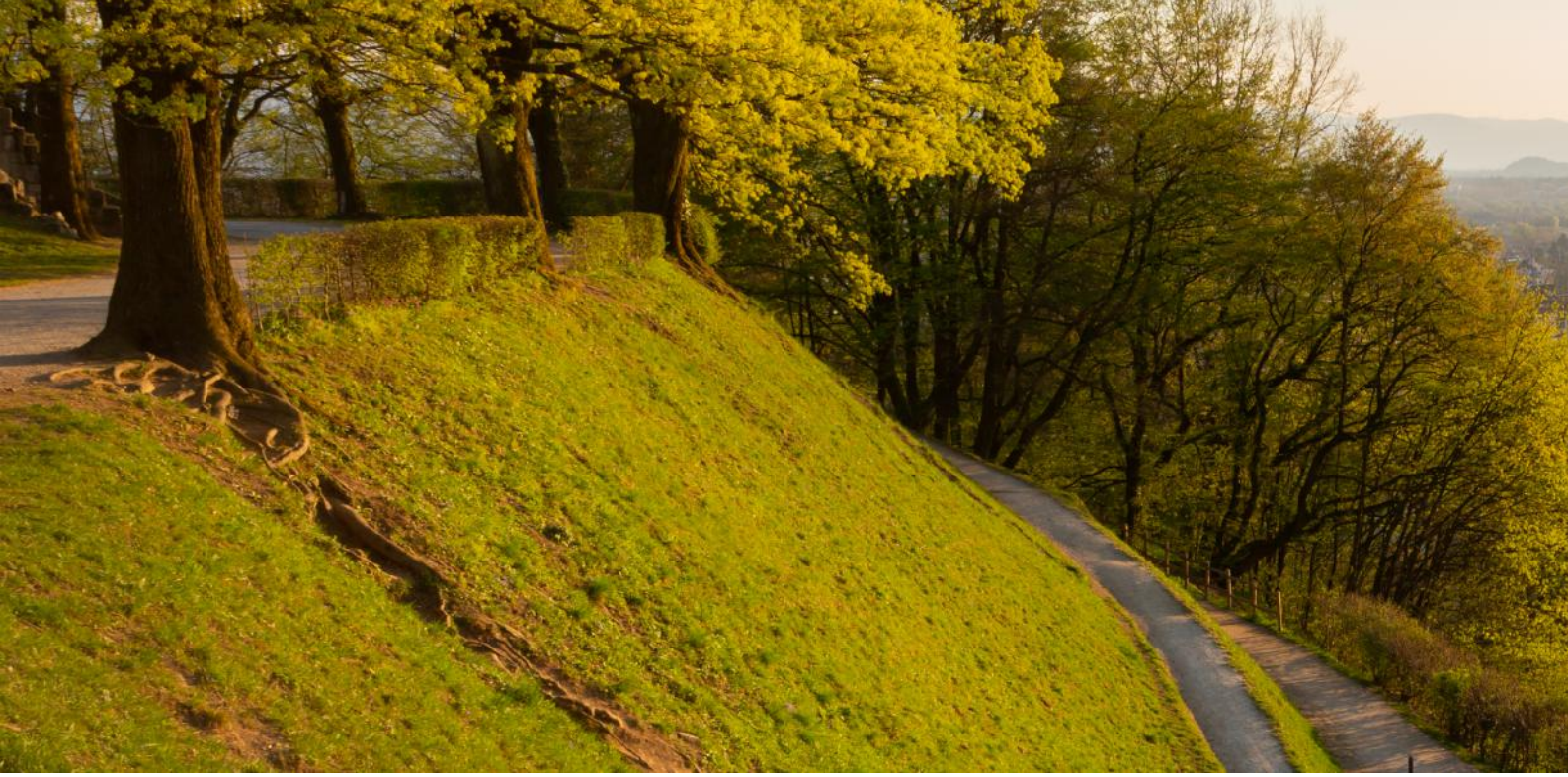
> *New locations for housing and employment are above all needed in our cities and urban areas, preferably within existing city boundaries, so that open spaces are retained between the various urban centres*

Different tree species are effective in different ways. Some are better at cooling, some are better at absorbing peak rainfall, etc. There are a lot of private initiatives such as Operatie Steenbreek (meaning 'operation breaking the stones'), an initiative supporting municipalities, provinces and water boards to make the living environment greener. In other words, it supports the replacement of unnecessary pavement in private and public spaces with a diversity of greenery with the indispensable help of residents and businesses.

Municipalities determine their approach together with residents, local businesses and organisations, for example sport and student associations and housing companies.
In the same period, I also became familiar with the added value of green–blue networks, for instance for the prevention of heat island effects and pluvial flooding, and for improving the health and well-being of people living in the city. I can, therefore, say, yes, there is still a lot that can be done, but also that much is already being done to create more green and blue spaces in the (inner) cities. Most importantly, efforts to create more green and blue spaces are part of an integral approach within (spatial planning) programmes that are already mainstreamed such as the delta programme. This approach involves cooperation between different layers of government and other parties such as housing agencies, water boards and (local) businesses. This multilevel governance and multi-stakeholder approach and involvement contribute enormously to the effectiveness of the different actions related to climate adaptation.
At the moment, the Dutch government is working on national strategy on spatial planning and the environment (NOVI), which will provide a long-term vision and sustainable perspective to our living environment that comprises both the built and the natural environment. Ensuring strong and healthy cities and regions is one of the four priorities of NOVI. New locations for housing and employment are above all needed in our cities and urban areas, preferably within existing city boundaries, so that open spaces are retained between the various urban centres. We aim to ensure that the quality and security of the living environment keep improving.
Our cities are shifting towards an active and sustainable mobility system that also creates green space in the cities. This means that, before new locations are selected for urbanisation, it must be clear what requirements need to be met in terms of the quality and safety of the living environment and what additional measures are needed when these locations are chosen. This will help guarantee the health of our cities and regions.

We will, however, not focus exclusively on growth. We also aim to strengthen vitality and quality of life in areas where population numbers are falling. A combined approach to creating green spaces in the city, trying to meet several goals – including those related to quality, economic value, health, climate adaptation, and opportunities to experience nature and biodiversity – is the path we want to take.
Instruments and tools that can help policy-makers make the right decisions are invaluable. For instance, the Climate Impact Atlas can help identify spots where green areas are most needed in terms of climate change. So, although I believe that we do face challenges, I am optimistic and believe that we can tackle them. for the challenge.

A tool within the Climate Impact Atlas is the TEEB City tool. TEEB – the Economics of Ecosystems and Biodiversity – is a global initiative dating from 2007, facilitated by the United Nations.
The TEEB City tool provides insights into the value of greenery, in terms of not only economic value but also social values such as enjoyment of residence and health. The tool calculates values for several of the positive effects of the green and blue measures of a project. For example, how do green roofs contribute to energy saving? How does the construction of a park affect the real estate value of houses in that neighborhood? What effects does greenery have on air quality, rainwater storage in the soil and carbon dioxide sequestration in trees?



More than 100 acres of new green surfaces in Ljubljana

Author: Blanka Bartol

Degraded, overlooked and unused areas of the city of Ljubljana are being converted into new green surfaces. This contributes to mitigating climate change and enhances the quality of life of citizens and visitors alike.

Green infrastructure (GI) should not be understood as something new. The concept of GI, which includes the concept that nature is essential for improving people's quality of life and well-being in cities, can be traced back to the first half of the 19th century. From that time, different planning approaches, embedded in societal needs, started to emerge, such as green belts, public parks, garden cities, regional green systems and greenways. It is important to build on experiences gained and adapt them to meet new needs and circumstances.

In the early 1990s, 'green system planning' started in Slovenia, and it has been part of municipal spatial planning since then. The Ljubljana green system, for example, has been developed to provide an interconnected system of natural elements that stretch into the city and scattered green areas, managing the ecological, cultural and morphological role of green areas in the urban tissue.

The role of green systems in Slovenia

Green systems are contingent on spatial circumstances. They encompass different types of green areas such as parks, trees, playgrounds, urban forests, water and green spaces along waterways, urban gardening areas and formerly degraded areas turned into various types of green areas. This illustrates, in my opinion, that green system planning and GI planning have similar if not the same purposes and benefits.

Nevertheless, the GI initiative gave new impetus to the argument that high-quality and well-functioning natural systems translate into high-quality and well-supported societal development. This is particularly important in cities, where there is more demand for social and cultural functions: green systems can reduce heat island effects, contribute to stormwater management and support soft mobility, all of which can make cities more attractive and liveable? I believe that the amelioration of urban green areas improves the attractiveness of cities and counteracts, to at least some degree, suburbanisation, which requires new land take and soil sealing.

> *SEA is mainly used separately from planning, which means that it cannot effetively contribute to the improvement of planning*

Green infrastructure in spatial and urban planning

The EU strategy on green infrastructure highlights that GI should be 'a strategically planned network'. It should be embedded in spatial planning and management. As such, it could give appropriate strategic orientation, which results from reconciling different needs, opportunities and restrictions, and taking into account multiple interests at different levels.

However, when adapting the GI concept to spatial and urban planning, we are confronted with many policy, methodological and technical questions. To name just a few of them: What does GI mean to compact cities? How do we cope with zero net land take in GI planning? Is GI a type of land use or not? As rightly highlighted by the GRETA (Green Infrastructure:

Enhancing Biodiversity and Ecosystem Services for Territorial Development) project, 'GI development requires space', which may, at the same time, 'increase land-use competition'.
There are two other aspects of the GI concept, namely multifunctionality and connectivity. Experts claim that GI provides multifunctionality per se because ecosystems in principle provide multiple benefits through ecosystem services.
But, in practice, multifunctionality should be achieved in a concrete spatial and urban setting.
As described in the GRETA project, ecosystem services can provide support for multiple policies, especially when the former are in synergy. But ecosystem services can also contradict one another, affecting each other negatively. That is why a place-based or 'functional' approach, as it is called in the GRETA project, is crucial, because it is the only approach that addresses different opportunities and needs in different spatial contexts.
However, this also gives rise to concerns about the GRETA recommendation to use strategic environmental assessment (SEA) to include GI in spatial development plans. SEA is mainly used separately from planning, which means that it cannot effetively contribute to the improvement of planning. In the SEA process, requirements from environmental, health, water, nature and culture conservation policies are addressed separately; they are not interrelated and not adapted to the level of a spatial plan.

The case of Slovenia

In Slovenia, we are currently preparing a long-term spatial development strategy, which includes GI as an integrated element of spatial development together with polycentric urban development, wider urban areas and rural areas. One of the strategy's objectives is to improve the quality of life in urban and rural areas. Green systems or GI at regional and local levels play an important role in this endeavour.
GI is connected to similar areas in a wider space to enable ecological connectivity among naturally preserved areas of the Alps and Dinaric Mountains, cross-border rivers and the sea. Thus, it also contributes to the implementation of the Alpine Green Infrastructure Declaration, 'Joining forces for nature, people and economy', adopted in 2018 within the framework of the EU strategy for the Alpine region (EUSALP).
In addition to supporting ecological functions, GI increases climate change resilience at the national level. At regional and local levels, GI can be implemented as regional green systems within regional spatial plans and green systems of settlements within local spatial planning documents. Providing appropriate connections among them will enable the development of genuine GI, supporting sustainable societal development.
The implementation of GI at the regional level is being tested as part of the Interreg project PERFECT – Planning for Environment and Resource Efficiency in European Cities and Towns (1), which aims to develop a regional GI strategy for the Ljubljana urban area. The strategy will provide a basis for a regional spatial plan and other plans and future investments in this field. One of the outputs expected from the PERFECT project is more awareness and an improved understanding of GI among local decision-makers, which will be crucial for implementing the GI concept in the future.

Circular management for greener cities

Author: Ines Androić-Brajčić

Circular management of spaces and buildings and green infrastructure (GI) are spatial development concepts that can support national priorities, and their implementation is a precondition for tackling the challenges caused by climate change; both are elements of the Spatial Development Strategy of the Republic of Croatia, a fundamental document directing spatial development in Croatia. This strategy was adopted by the Croatian parliament in 2017 and resulted in the development of two programmes that aim to support the integration of circularity principles and GI into the Croatian planning system.

The programmes were developed by the Ministry of Construction and Physical Planning of the Republic of Croatia in cooperation with the Faculty of Architecture, University of Zagreb, and the expert consultancy Urbanex Ltd. These medium-term strategic documents will provide stakeholders with a framework for the implementation of circular management of spaces and buildings and support GI during the period 2021–2030.

Circular Management of Spaces and Buildings Development Programme

The building stock in Croatia is changing, and it includes a significant and increasing number of unused spaces and buildings. The Croatian spatial development strategy recognises circular management as a crucial aspect of development and emphasises the importance of circularity – for example reusing existing abandoned spaces, revitalising brownfield areas and encouraging a reduction in construction waste – for sustainable spatial development. The strategy also recognises the significance of increasing energy efficiency in the field of building design and construction.

The Circular Management of Spaces and Buildings Development Programme is a medium-term strategic document aimed at setting out for all stakeholders principles for the implementation of circular management of spaces and buildings. It also aims to promote sustainable, inclusive, safe and resilient cities by establishing construction guidelines based on the principles of the circular economy to support:

the reuse of buildings and spaces and the extension of their lifespan;

an increase in energy efficiency and the use of renewable energy sources;

the reuse of existing construction products and materials;

a reduction in the amount of construction waste.

The programme describes the current situation in the Croatian territory and identifies potential obstacles and development priorities. It also describes measures and implementation activities, evaluates the possible effects of certain actions and identifies sources of financing. The programme sets out three specific objectives.

The development of a system for the circular management of spaces and buildings. This system will include mapping and continuous monitoring of the spatial situation of the building stock, as well as guidelines and methodologies for implementing the circular management of spaces and buildings.

Circular reuse of unused spaces and buildings. To achieve this objective, measures and activities will be identified that will contribute to a reduction in construction waste, improve the energy performance of buildings, conserve resources used in spaces and buildings, and revitalise spaces in which buildings are constructed. Examples of these measures and activities are the rehabilitation of existing national building stock, the promotion of innovation in spatial planning and the implementation of circular management models.

A high level of knowledge and social awareness of circular management of spaces and buildings. This objective will involve informing and educating the general public and stakeholders about circular management of spaces and buildings. Policy-makers at local level have an important role to play here, since the success of these measures will be closely related to the creation of spatial development plans at local level.

The estimated total cost of the implementation of measures and activities under the Circular Management of Spaces and Buildings Development Programme for the period 2021–2030 is EUR 635 million. The programme is currently nearing completion and will be adopted by the Croatian government by the end of 2020. Following the adoption of the programme, the Ministry of Construction and Physical Planning will develop an action plan for its implementation.

> *According to the spatial development strategy, "it is necessary to establish new and preserve existing urban GI systems – a network of green areas which contributes to the conservation, improvement and restoration of nature and natural functions and processes in cities".*

Green Infrastructure in Urban Areas Development Programme

The aims of this programme are to meet the preconditions for improving quality of life and human health and to contribute to sustainable social, economic and spatial development.

According to the spatial development strategy, "it is necessary to … establish new and preserve existing urban GI systems – a network of green areas which contributes to the conservation, improvement and restoration of nature and natural functions and processes in cities".

Based on the identified current status of GI in urban areas, the programme outlines development needs and potential, identifies challenges, sets out the vision for development and establishes objectives, priorities and measures for GI development in urban areas. It also describes the economic, social and environmental benefits of urban GI and provides a financial framework for implementation, as well as a framework for monitoring and evaluating GI in urban areas. This programme is intended to establish sustainable, safe and resilient cities and communities by increasing the energy efficiency of buildings and building land, developing GI in the field of building design and construction, and enacting urban transformation and urban rehabilitation.

A review of the current status of GI in the Croatian territory concluded that urban areas encompass a large number of isolated, smaller green areas and a large number of dysfunctional and often undeveloped larger green areas. These areas either have lost their original physical interconnection as set out in spatial plans or were developed at a smaller scale (e.g. at neighbourhood level) without physical interconnection with green areas in the wider environment. Green areas include lines of trees, promenades, isolated sports and recreation areas, playgrounds, lawns, inner courtyards, green areas of building plots, etc. Owing to their monofunctionality and the fact that they are undeveloped, they cannot be considered urban GI. But if we connect them to create an urban network of green areas, and ensure their multifunctionality, these areas can indeed become part of urban GI.

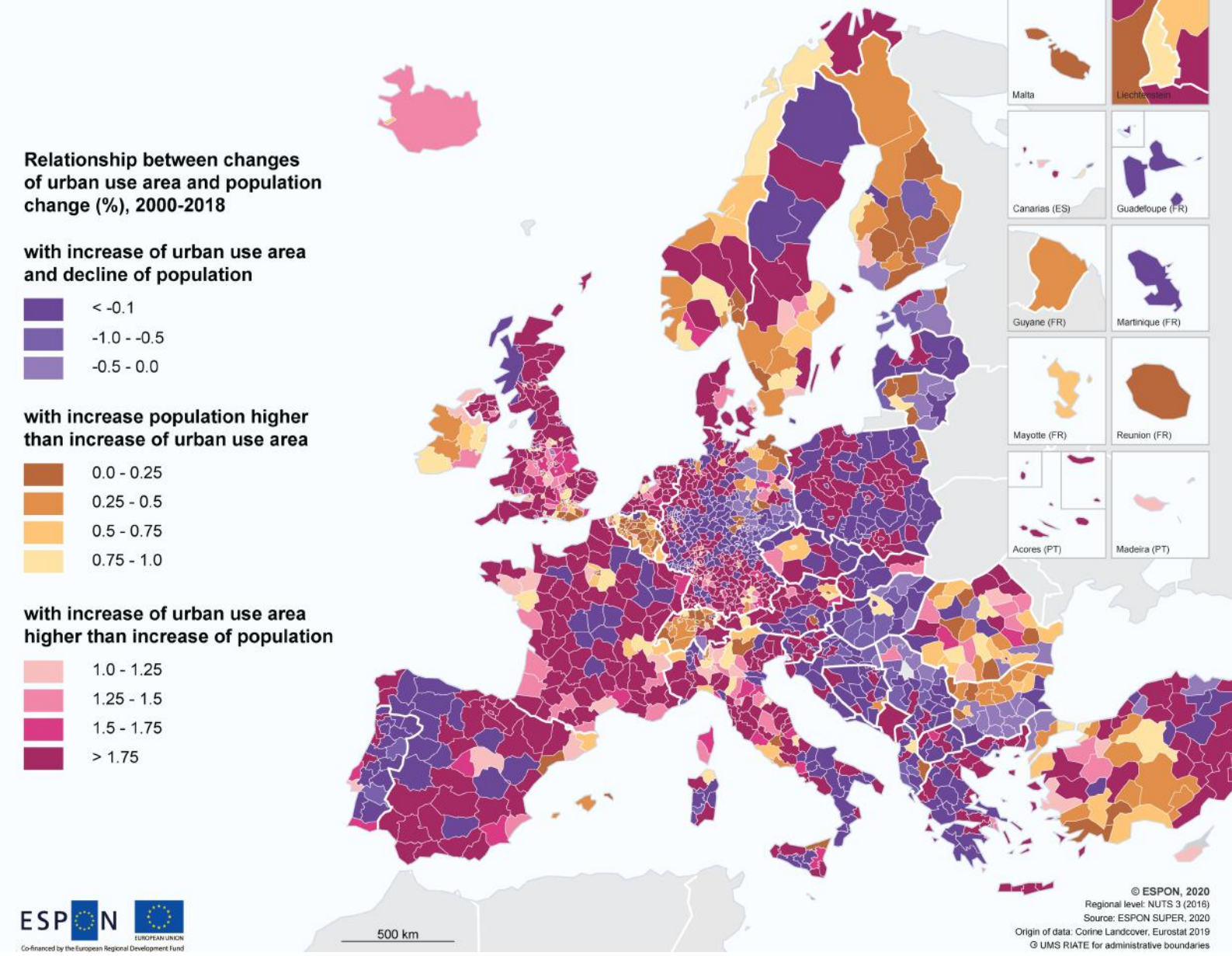
The Green Infrastructure in Urban Areas Development Programme sets out three specific objectives.

Quality planning for and management of GI development – laying the groundwork for mapping and monitoring GI development in urban areas. This objective includes measures for mapping and ensuring the preconditions for the creation of strategic documents supporting GI development at local and regional level. It also includes the set-up of a digital database of GI projects and advocacy for greater international exchange of knowledge on urban GI.

Improved, widespread and easily accessible GI in urban areas – defining measures and activities for planning, construction and landscaping of urban GI. This objective includes the implementation of pilot projects and incentives for GI development, which improve the resilience of urban areas to the effects of climate change. Among other things, the plans include completing 10 pilot projects for GI development between 2021 and 2024 and launching calls for project proposals to develop GI in smaller and larger urban areas, urban corridors, urban networks, etc., between 2023 and 2030.

A high level of knowledge and social awareness of sustainable development of urban areas through GI development. To meet this objective, a framework will be created and measures implemented to promote the GI programme and to inform and educate all stakeholders about it at national, regional and local levels.

The estimated total cost of the implementation of measures and activities under the Green Infrastructure in Urban Areas Development Programme for the period 2021–2030 is EUR 610 million. The programme is currently nearing completion and is expected to be adopted by the Croatian government by the end of 2020. Following the adoption of the programme, the Ministry of Construction and Physical Planning will develop an action plan for its implementation.



How green is the reuse of spaces and buildings?

Author: Marjan van Herwijnen

In many cities, population growth puts pressure on scarce urban land and affects relationships between core cities, and suburban and rural areas. Such pressure could result in uncontrolled urban development (sprawl) that is generally considered unsustainable. Urban sprawl could, for example, increase travel times and transport costs, cause pollution and environmental degradation, intensify segregation and undermine the vitality of existing urban areas.

An effective way to counteract urban sprawl and reduce environmental impacts is to reuse spaces and buildings, in accordance with the principles of a circular economy. This can be considered an attractive alternative to new construction.

In the spirit of a circular economy, industrial sites could be reused and abandoned industrial installations could be dismantled and either sold for reuse or recycled. Vacant buildings could also be adapted to new circular industrial or non-industrial uses, or be transformed into public spaces, thereby contributing to regenerative spatial and urban planning.

In the process of achieving sustainable urbanisation, green infrastructure, that is, incorporating green (and blue) spaces and other physical features into terrestrial and marine areas, can be a useful tool. It contributes to the environmental vitality of urban areas and can reduce energy use for heating and cooling buildings by shading in the summer and providing shelter in the winter.

who can steer?

Countries have distinct territorial development strategies and spatial planning systems in place, leading to considerable differences in the extent and spatial distribution of urban development. These developments can vary from relatively compact cites with efficient uses of land and mobility systems to areas of diffuse suburbanisation with more affordable housing.

The Leipzig Charter on sustainable cities, followed by the thematic strategy on the urban environment, enlarged the role of cities in establishing territorial development strategies and spatial planning systems.

Reusing buildings and spaces

No local government has the tools to address all the challenges and opportunities related to the reuse of buildings and spaces and their implementation. Therefore, a mix of policy tools is needed.

How to do it

have a strategy: raise political awareness and gain the commitment of different groups of decision-makers via the strategic visioning of metropolitan development;

coordinate: establish bodies to coordinate metropolitan developments across political and administrative layers of government;

restructure: reorganise planning departments and formalise relationships, competences and responsibilities across sectoral governmental structures;

set up procedures: establish legal, mandatory mechanisms for metropolitan planning;

finance: use different sources including structural funds, research and innovation strategies for smart specialisation (RIS3), a combination of public and private funding, and fiscal incentives;

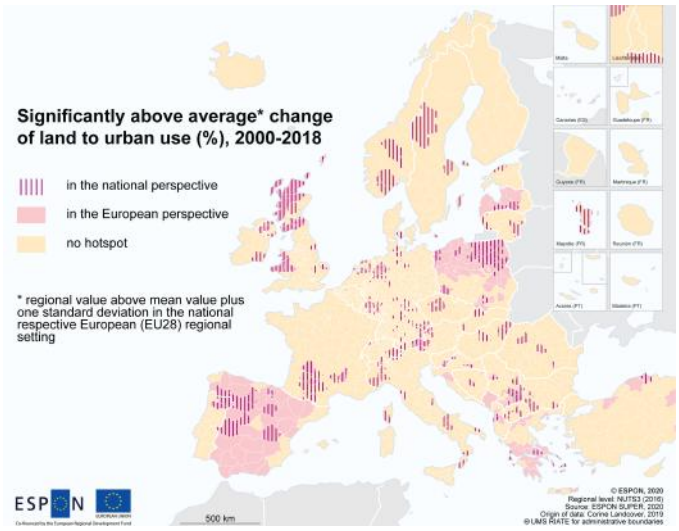
collaborate: establish specific roles for all collaborators to ensure the equal participation of all the affected stakeholders.

Voluntary agreement and target in urban renewal – the case of France

At the beginning of the 2000s, there was a need to rethink the French spatial planning system in view of new needs and economic circumstances. The French Law on Urban Solidarity and Renewal, introduced in 2000, was based on planning coherence, urban solidarity, sustainable development and the better integration of land use and transport.

The law decentralised planning, giving responsibility to local authorities. Each municipality was completely free to organise its urban development and enact its own building rules. Local state services supported the municipalities. Moreover, the law established that at least 20 % of all new dwellings should be dedicated to social housing. Finally, to reduce the use of private transport and combat urban sprawl, the law stimulated the coordination of infrastructure planning and public transport.

The bill was considered less successful in terms of public transport and decentralisation, but useful for the development of social housing.



Keep your eyes on the SUPER project: the ESPON SUPER (Sustainable Urbanization and Land-use Practices in European Regions) project gathered information on over 200 interventions that, in one way or another, affect land use and thus influence its sustainability. Each of the interventions collected was described according to a number of basic features, such as its aim and the instruments applied.

Read more:
Policy Brief: Reuse of spaces and buildings

Sustainable regeneration of port cities

Authors: Xavier Le Den, Daniele Ronsivalle

Despite overall growth in the maritime sector, many European port cities are challenged by the migration of port-related activities from inner-city areas to other locations. The relocation of these economic activities results in the emergence of brownfield sites in strategic urban locations. Reusing these sites in a sustainable manner can contribute to preventing new land take and the regeneration of port cities. The city of Brest (France) is a good example of a port city that rejuvenated its inner-city area in a sustainable way.

There is widespread recognition that to be sustainable the development of the European territory will require more efficient and active land management and the consolidation of existing urban footprints. A key opportunity for European cities in this regard lies in the regeneration of former brownfield sites and, in many cities, these take the form of waterfront sites. Across Europe's largest cities, such as Rotterdam and London, waterfront or dockland regeneration has been going on for close to 40 years. But, given that the majority of Europe's urban areas are small or medium-sized cities, it is also important to understand the potential regeneration capacity of these types of cities.

The opportunities and challenges related to the regeneration of small and medium-sized port cities are broadly similar across Europe. However, significant differences are found between port cities in terms of their governance structures, land ownership, degrees of separation between port and urban functions, and the pace of the phasing out of port and industrial activities along the harbourfront.

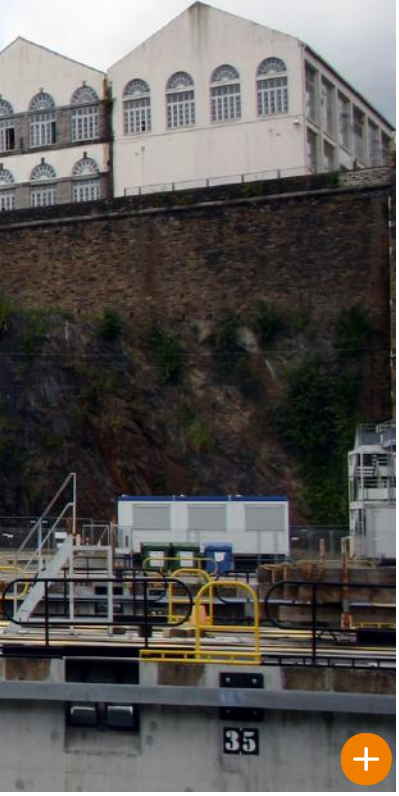
The ENSURE (European Regeneration through Port City Regeneration) project's Good Practice Framework for European Sustainable Urbanisation through Port City Regeneration – An Operative Guide proposes a set of solutions based on experiences from small and medium-sized European port cities. Three key policy recommendations serve as a backbone to this good practice framework, which highlights the importance of political commitment and active leadership in supporting regeneration processes.

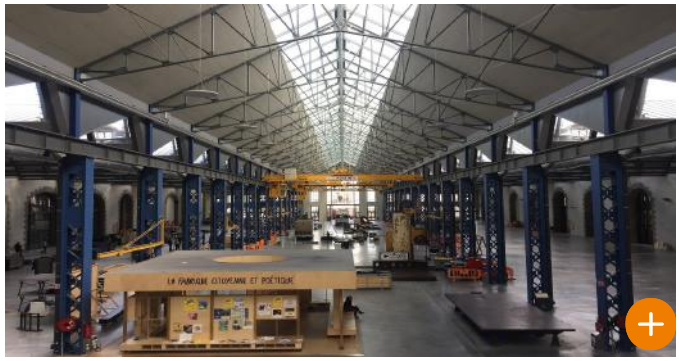
The first policy recommendation for starting an integrated regeneration process is to gain an understanding of existing port city relationships, using spatial analysis tools and by evaluating plans and policies at national, regional and local levels.

The second policy recommendation argues for the use of suitable planning approaches that address ports and cities as systems with interlinked components. Strategic plans, cross-district master plans and land-use plans for the port and the city hold the key to resolving port–city mismatches, and addressing port city regeneration as part of a wider sustainable urban development strategy.

The third policy recommendation advocates the establishment of suitable governance models and funding arrangements for each of the regeneration projects or plans. Engaging all stakeholders and involving civil society organisations, citizens, landowners and local businesses are essential to ensuring that all relevant perspectives are taken into consideration and that any planned regeneration receives widespread support and benefits all.

Basically, port city regeneration is often part of a boosterish





agenda to retain and enhance global competitiveness and attract foreign direct investment, workplaces and tourists to both the city and the wider region or even country. The successful regeneration of waterfront areas can be a stepping stone to the revitalisation of urban centres in port cities, maintaining or redeveloping economic and leisure activities and increasing housing capacity, while reusing abandoned spaces and preventing net land take.

Capucins Workshops in Brest: an example of smart reuse of spaces and buildings in former port locations

In Brest, regeneration projects have improved the integration of port areas into the city and improved the city's attractiveness for residents and visitors. In the 1980s and 1990s, the vision for the regeneration of this port city originated mainly from the public sector, which initiated and implemented a lengthy process of revitalisation of the traditional industrial port.

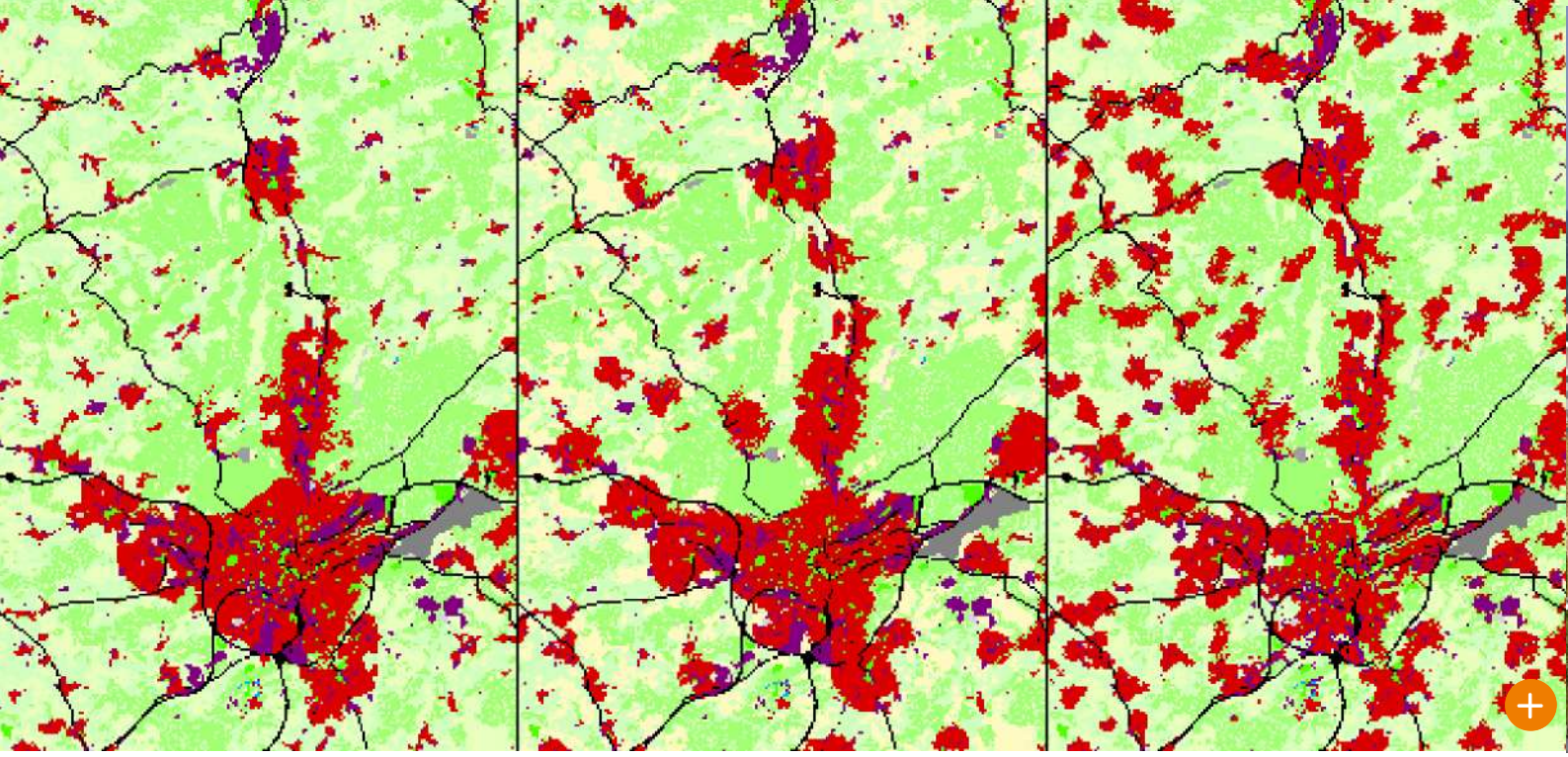
The beacon for the regeneration process was the restoration of the Capucins Workshops, a former navy-owned area along the Penfeld river mouth. In 2005, Brest Métropole awarded a contract to architect and urban planner Bruno Fortier to devise a plan for the regeneration of the Capucins area and the Capucins Workshops. The overall result of the regeneration was a new mixed-use neighbourhood with cultural, economic and residential functions, which responded to the ambition of reconnecting Brest with its maritime and industrial heritage. The regeneration of the Capucins neighbourhood was mainly based on the reuse of sealed soils. This resulted in new urban facilities (covering a surface of 25 000 m2 and attracting 3 million visitors in two years), an eco- and inclusionary

> *Strategic plans, cross-district master plans and land-use plans hold the key to resolving port–city mismatches, and addressing port city regeneration*

neighbourhood and an innovative sustainable mobility solution, crossing the Penfeld river. The naval/industrial identity of the place was maintained with a permanent exhibition on the history of the Capucins area and the perseveration of remaining machinery. In the future, a new naval industry campus will be hosted in the Capucins Workshops.

These highly successful outcomes are the results of a long-term sustainable governance process. Brest Métropole created a semi-public satellite organisation to redevelop the area. This reduced the risk for the public sector by sharing the risk with the private sector, attracting their investments.

For the Capucins Workshops regeneration project, public involvement took place at the planning stage and in the early stages of the works to create a sense of ownership of the new public space. Today, the Capucins Workshops form the flagship infrastructure of Brest Métropole, which is now deploying a new and ambitious urban strategy called 'Brest Coeur de Métropole'.



Urbanisation and land-use practices in European regions



Authors:
David Evers. Giancarlo Cotella, Ivana Katurić

Improving urbanisation and land use practices in European regions is both necessary and possible. Although there is consensus that drivers such as demographic development (particularly in terms of households), economic growth and technology matter, it is also clear that institutional factors such as property rights, fiscal rules and other policies affect the profitability of land development. For example, territorial governance and spatial planning systems directly influence decision-making in this area. Land-use change is therefore not a natural phenomenon but socially constructed: it is the outcome of conscious decisions made by human beings. Given this, it is also something that can be affected by conscious human interventions. Policies and practices matter.
The ESPON SUPER (Sustainable Urbanization and Land-use Practices in European Regions) project aims to inform decision-making on urbanisation and land use in Europe to more sustainable ends. To do this, the project has amassed a considerable body of knowledge on physical developments in the 2000–2018 period. It has also collected information on the relative success and sustainability of 232 interventions that affect, or are intended to affect, these developments. Particular attention was paid to the direct and indirect impacts of EU sectoral and territorial policies. In addition, 10 case studies were conducted on the way these interventions affect actual practices of land development. Finally, this evidence was synthesised into three scenarios for 2050 that explore the implications of pursuing three types of urbanisation.
These scenarios are intended as a springboard for policy discussions on the desirability and sustainability of various urbanisation and land-use practices, as well as how to affect these practices.

3 types of urbanisation

compact urbanisation scenario: high-density urbanisation with land take close to zero;
polycentric urbanisation scenario: medium-density, clustered urbanisation, for instance the creation of new towns or transit-oriented development;
diffuse urbanisation scenario: low-density, scattered urban development such as monofunctional car-oriented suburbs, ribbon development and ex-urban, often informal, construction.

On the basis of the evidence collected, the project team crafted policy messages including those outlined below.

Urbanisation, which accounted for almost half of land-use changes in Europe in 2000–2018, is significant for sustainability because it is so unidirectional: over eight times the amount of land is converted to urban uses than vice versa.

Interventions can and do affect urbanisation and land use. Even though these may not always be able to alter the macro-developments producing the demand for certain land uses, they can affect the spatial allocation of land to meet this demand. The fact that some configurations or land-use combinations are more sustainable than others provides some perspective to policy-makers. Moreover, the case studies show that most stakeholders in most cases approved of the measures finally put in place.

Generic targets or one-size-fits-all regulations have only limited value given Europe's territorial diversity. The roadmap to a resource efficient Europe , for example, sets a target of zero net land take by 2050. Although such objectives are appealing for their clarity, they neglect the importance of context, such as the state of the local economy, ecology or society. As such, they can fail to obtain commitment from those entrusted to make local land-use decisions.

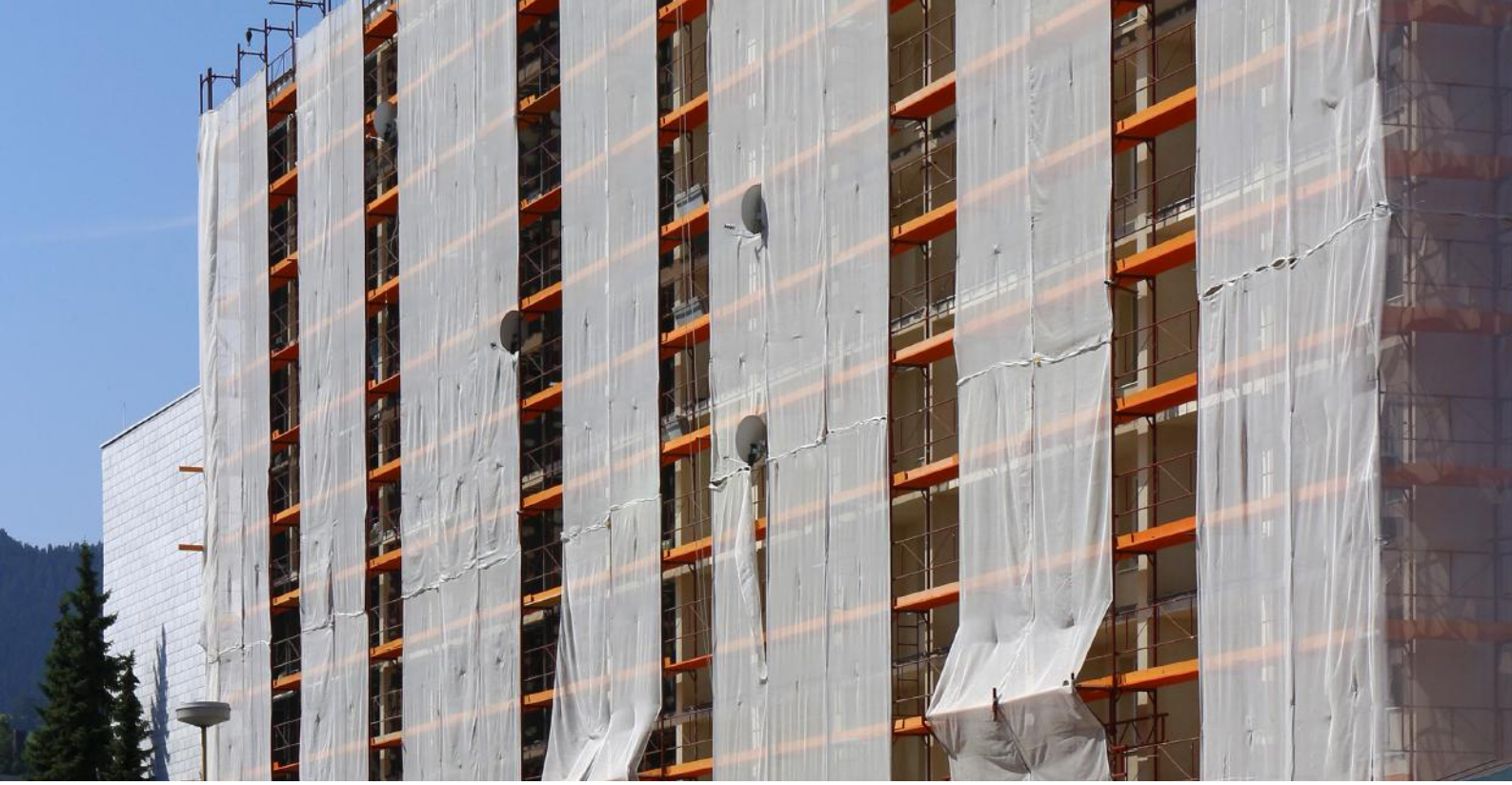
Public authorities should provide leadership in defining long-term goals, for instance in an official strategy or vision that can be used as a framework in which to embed operational interventions. The case studies revealed that visions and strategies were conducive to the successful implementation of interventions.

EU policies have a substantial impact on territorial governance and spatial planning systems and, hence, urbanisation and land use. While most EU policies were found to be supportive of sustainable urbanisation and land use, some have effects that potentially run counter to this aim. The EU could provide more leadership and coordinative capacity to support sustainability.

The SUPER project offers concrete knowledge to both decision-makers (politicians), on which course of action should be taken, and policy-makers (officials), about the best way to achieve the chosen ambitions. These insights are being bundled into the SUPER handbook Guide to Sustainable Urbanization and Land Use . EU policy-makers can use this handbook for inspiration when developing interventions (spatial plans, programmes and projects) to steer urbanisation processes and land-use decisions to give a more sustainable result.

For officials, the guide provides insight into the different instruments that influence land use, some of which are indirect and may come from surprising sources, for example fiscal arrangements or overarching visions. For politicians, it highlights governance preconditions for success and reports on experiences of the political struggles related to drawing up interventions, and how these were overcome in practice.

The handbook aims to transfer knowledge to enable better decision-making, not to transfer policies per se. As geographical and institutional contexts differ greatly across Europe, although general principles can be shared, the application of these principles should be adapted to each specific situation. Readers with a solid understanding of the nature of the territory where they operate and its administrative structure, as well as their main responsibilities, will benefit most from this guide. They are best placed to evaluate whether or not a particular experience elsewhere in Europe, presented in the guide, is relevant or useful to them.



Improving knowledge about the reuse of spaces and buildings

Author: Tamara Slobodová

The new ESPON Policy Brief Reuse of Spaces and Buildings shows very comprehensively what procedures, interventions and tools could be applied when considering the sustainable use of land, spaces or buildings. This topic is generally not new, but the policy brief offers the opportunity to build on good examples and share knowledge.

From my point of view, it gives complex information about factors that could influence the sustainability of land use and also instruments that could be used to ensure sustainable urbanisation. On the other hand, it also illustrates the hindering factors and challenges for redeveloping built-up areas, mainly with regard to port cities. However, these challenges are valid generally and could apply to different spaces, not only to port cities, as many different settlements face the same (re)development issues.

The comprehensive applied research project SUPER (Sustainable Urbanization and Land-use Practices in European Regions) goes into even more detail and provides useful information on different kinds of territories. As the SUPER project is producing a handbook containing recommendations, the use of this project's findings could be very widespread. My impression is that policy-makers and other stakeholders will find important knowledge and advice in this handbook, in relation to their roles in redeveloping deprived sites in built-up areas and also in preserving greenfield sites as valuable commodities that are slowly disappearing.

What I perceive as negative aspects of current practice for enhancing the reuse of spaces are the political will, financial investment, budget and, of course, the map of landowners. Especially in Slovakia, the identification of the various landowners concerned and their anticipated cooperation are probably the biggest issues in the process of redeveloping built-up areas and areas in decline. This can probably be summarised best by the following statement from the policy brief: 'multi-level and multi-agency governance turns out to be a key feature in the city regeneration projects'.

> *My impression is that policy-makers and other stakeholders will find important knowledge and advice in the SUPER handbook*

Nevertheless, emphasising cooperation on the one hand and underlining the positive aspects (environmental and economic) of the regeneration of spaces on the other hand could be the basis for further development for local policy-makers and planners. In fact, the policy brief and the SUPER project, with its valuable data, analyses and gathered interventions, could be well suited to serving this purpose.

Cork's docklands – learning from regeneration in a port city

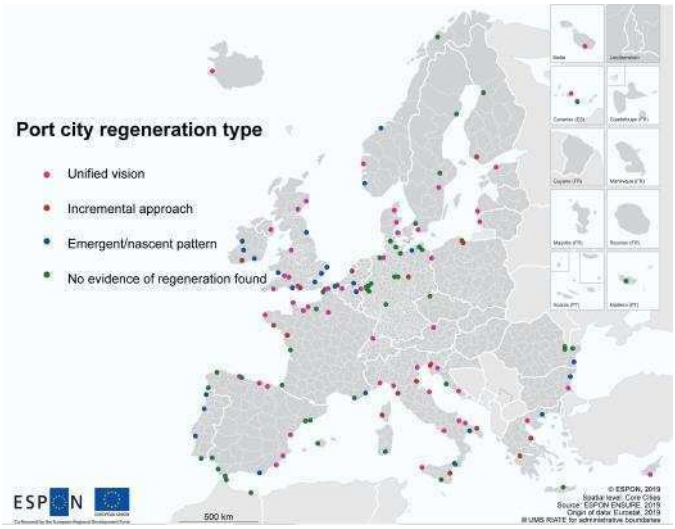
Author: Lorcan Griffin

On 31 May 2019, Cork City expanded its administrative boundary, resulting in the city becoming nearly five times its former size and increasing its population by 85 000, to 210 000 CorkCity is now defined as a medium-sized European port city and it includes a number of urban regeneration projects of significance within this context.

A new city development plan that needs to plan for ambitious national growth targets for 2040 is currently being prepared. This plan will provide a revised framework for shaping the future structure of a growing city. It must be driven by a very clear set of development principles, including enhancing and fostering a city with strong communities, liveable neighbourhoods and an excellent quality of life. The consolidation and regeneration of the city centre will be critical, to underpin its role as the vibrant, living and working heart of the city. Central to this will be the regeneration of the city docklands as a high-quality, mixed-use, sustainable waterfront area with new urban quarters and transformational projects based on international best practice.

Enabled by the ESPON programme to support territorial development policy-making through evidence, Cork City Council initiated and drove the **ESPON ENSURE** (European Regeneration through Port City Regeneration) project, recruiting comparable partner port cities, namely Aalborg, Brest and Catania, as well as academic and consultancy partners. With Cork City Council being the lead stakeholder in this project, the research, analysis and lessons learnt provide us with timely and valuable insights into the potential impacts of port city regeneration in Cork and a better understanding of the most appropriate methods and tools available.

The lessons learnt will feed directly into the next city development plan and the local area plans for the City docklands and Tivoli docklands. Multiple pan-European studies of urban renewal and regeneration in small and medium-sized cities also provide open and accessible comparisons for Cork's dockland regeneration projects. While the in-depth case studies of each of the four ENSURE stakeholder cities and the Good Practice Framework Handbook provide more detailed learnings on city regeneration. The project has also resulted in a number of valuable spin-offs.



ESPON evidence in planning practice and policy development

Authors: Sandra Momčilović and Ivana Katuric

It is commonly understood that the development of urban areas will have a major impact on the future sustainable development (economic, environmental and social) of the European Union and on its citizens. Moreover, it is recognised that the success of sustainable urban development is highly important for the economic, social and territorial cohesion of the European Union.

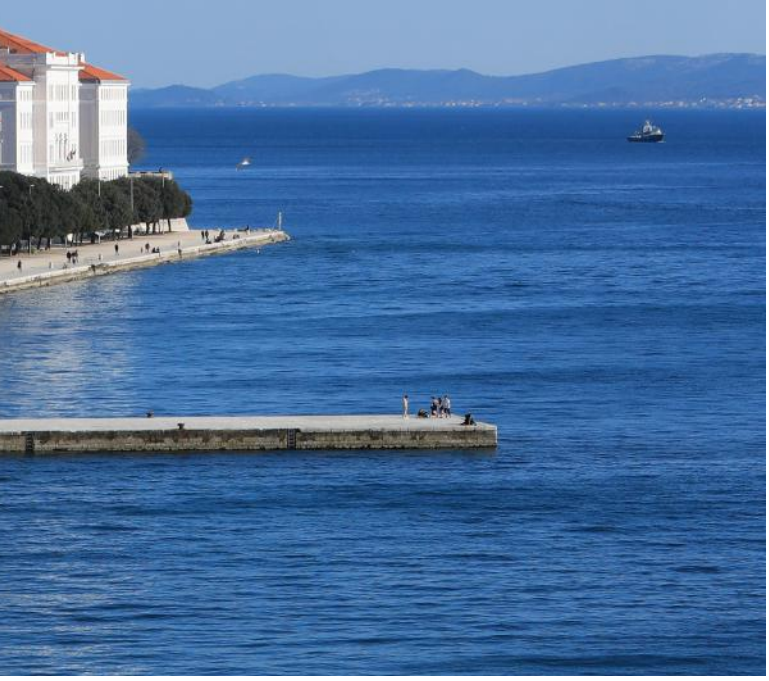
Urban areas in Europe are facing a number of developmental challenges, one of the most significant being ensuring sustainable land use. To address this challenge, within the urban agenda for the EU, the Partnership on Sustainable Use of Land and Nature-based Solutions (SUL-NBS Partnership) was established. The main objective of the SUL-NBS Partnership is to ensure that changes in urban areas (growth, shrinkage and regeneration) are respectful of the environment and improve quality of life. The partnership also aims to respond to the growing need for better urban management, in the context of scarce land resources and the potential benefits of using nature to address the challenges faced by cities.

> *The SUL-NBS Partnership considers ESPON's project results and findings to be very valuable, and many of them were used by the partnership as a starting point when developing and implementing many actions*

It is essential that awareness of these topics grows, which is also reflected by the selected priority topics of the Croatian Presidency of the Council of the European Union, dealing with the reuse of spaces and buildings, as well as green infrastructure (GI) in urban areas. These are core topics to consider when discussing sustainable land use.

Many ESPON research projects deal with challenges related to these topics. Projects such as SUPER (Sustainable Urbanization and Land-use Practices in European Regions), ENSURE (European Regeneration through Port City Regeneration), GRETA (Green Infrastructure: Enhancing Biodiversity and Ecosystem Services for Territorial Development), TITAN (Territorial Impacts of Natural Disasters) and others provide immensely valuable findings and information. Findings and results provide not only information regarding past trends and the existing situation related to urban, regional and territorial development, but also solutions on how cities and regions could achieve sustainable development. In the context of the SUL-NBS Partnership, it is extremely valuable that ESPON projects recognise the importance of urban areas in overall territorial development. The results of ESPON projects and the findings presented in ESPON policy briefs on the reuse of spaces and buildings, as well as on GI in urban areas, can be applied by urban authorities to achieve sustainable land use and in a wider context to contribute to overall sustainable development.

The application of the research results can be viewed through three aspects. The first is related to using the information and data provided on the existing trends and situation to raise awareness among urban authorities of existing and emerging challenges. Through these findings, urban authorities can more easily recognise and explain the challenges they are facing or could face in the near future. For example, SUPER will provide findings on the unexpected costs of urban sprawl and the benefits of limiting land take, while TITAN deals with



the economic impacts of natural disasters in European cities and regions. These findings can help urban authorities to assess their options and respond in a timely manner to prevent undesired effects. The second relates to methodology and best practice examples, which are often identified and/or defined through the research. One of the examples is the methodology presented as part of GRETA, aimed at helping cities to assess the long-term benefits of GI development, especially regarding its monetary value, which is often one of the most important aspects when deciding whether or not to implement a GI project. Finally, what can be considered the most important aspect of ESPON research projects in terms of their application are the recommendations that are formulated based on the findings and results. While the level of detail and specificity of the recommendations depends on the project itself and its specific theme, the recommendations represent clear steps that urban authorities can adopt or incorporate into existing policies, and implement to govern in a more sustainable manner and effectively reach development objectives.

To support policy-makers and planners in enhancing the reuse of spaces and buildings, enhancing GI and developing more sustainable urbanisation, they should be included more intensively when identifying the challenges that are likely to be faced when taking action. This refers for instance to limited capacities and knowledge on topics such as financing options and determining the benefits of certain decisions. The key to applying the results of ESPON research projects and the findings in documents such as ESPON policy briefs is to increase their visibility and disseminate them to urban authorities across Europe. The SUL-NBS Partnership considers ESPON's project results and findings to be very valuable, and many of them were used by the partnership as a starting point when developing and implementing many actions.

A practical handbook for SDG 11 and 15

Author: Albert Civit

The Urban Agenda partnerships on the circular economy and on the sustainable use of land and nature-based solutions decided to work together because the reuse of abandoned or underused buildings and spaces emerged as a relevant topic for both partnerships. For this reason, we agreed to make joint efforts to develop a shared handbook merging the different perspectives, from national, through regional and FUA (functional urban area), to local level. The topic "urban regeneration and re-use of buildings" presented in this handbook covers SDG (Sustainable Development Goal) 11 (Sustainable cities and communities) and SDG 15 (Life on land) concerning land saving.

The book is intended to serve as a stimulus and an incentive for strategic planning at the urban level, especially carried out by public authorities, but also supported by the regional and national levels. With a wide review and analysis of good practices of urban reuse offered by the handbook, cities and regions and nations may learn about the different solutions that can be adopted, taking into account their specific urban features. The approach could be bottom-up or, vice versa, top-down, adopting different models of governance for the management of specific situations. Moreover, involving the media in communication and, in particular, in telling the story of the regeneration process of unused spaces and buildings is the first step in making citizens an active part of change. Informing citizens on the decision-making process is crucial to sensitise them and to promote reuse and regeneration as keystones for urban development. Thanks to ESPON projects and knowledge, we could include and take into account all the recommendations and findings regarding this topic.

A practical tool to implement nature-based solutions

Author: Sanja Jerković

We consider the topics of reuse of spaces and buildings and green infrastructure to be of utmost importance when talking about sustainable urban development and limiting urban sprawl. These two topics go hand in hand and it is extremely important for us to approach to them in that manner. When planning the reuse of existing spaces and buildings, we aim to incorporate green infrastructure as an element that contributes to sustainability and to the improvement of quality of life for our citizens. We are strongly dedicated to this. As a partner in SUL NBS Partnership, Zagreb is developing a guide that gathers all information on available financing and funding instruments and models. It also includes both private and public funds, the NBS reference framework and good practice examples of NBS projects implemented in EU cities. We aim to create a practical tool for local and regional authorities, as well as private investors, which will lead to improving the implementation of NBS, as they will be able to access the information on financing NBS projects more easily. In Croatia, Zagreb is one of the leading cities in implementing NBS. The city of Zagreb is currently implementing and preparing several NBS projects, such as ProGIReg, Zagreb on the Sava river, City of Youth and Črnomerec creek. ProGIReg, short for 'Productive Green Infrastructure for Post-industrial Urban Regeneration' will develop nature-based solutions on the technical level through NBS implementation; on the social level through co-design, a joint creation and NBS implementation in cooperation with local community; and on the economic level through combining NBS with business models ready for the market. The project involves several stages in which various nature-based solutions are going to be implemented, such as reconstruction of the existing factory building using green walls and roofs; construction of a bike path that will connect marginalised areas through the green corridor; aquaponics – a link between aquaculture and hydroculture in a circular system that saves resources and mimics the natural nitrogen cycle; and construction of urban gardens. Findings of ESPON research projects and policy briefs are important to us, especially in the way that they help us to get new points of view on existing challenges we face and to determine our course of action.

Results of the urban agenda on sustainable land use and nature-based solutions

The SUL-NBS Partnership started its activities in 2017. The establishment of this particular network was a response to the growing need for better urban management and the acknowledgment of the benefits of using nature-based solutions to address the challenges facing cities in a context of scarce land resources. The network brought together over 20 partners from European cities, national governments and European institutions to jointly propose solutions and recommendations aimed at ensuring 'the efficient and sustainable use of land and natural resources to help create compact, liveable and inclusive European cities for everyone'.

The Partnership implemented nine actions outlined in the action plan adopted in 2018. Based on the actions' results, studies conducted and exchanges between partners, the SUL-NBS Partnership formulated the following summary recommendations:

European Union

Better anchor issues of land take and nature-based solutions in EU policies, especially sectoral policies;
Conduct more European research to gather evidence of the benefits of, for example, FUA collaboration and nature-based solutions'
Gather consistent and up-to-date data on land use and nature-based solutions, with widely agreed targets and indicators at the European level;
Ensure better mainstreaming and promoting of sustainable land use, FUA cooperation and nature-based solutions in cohesion policy.

National governments

Enable flexible forms of inter-municipal cooperation and more administrative flexibility for cities (facilitate FUA cooperation);
Include land take and nature-based solutions in national schemes for assessment procedures and planning;
Provide guidance for local authorities on compact and liveable city models and offer incentives (financial incentives, technical support).

Regional and local authorities

Ensure stronger enforcement of Strategic Environmental Assessment and Environmental Impact Assessment procedures and their adaptation at earlier planning stages;
Cooperate with the private sector to utilise land reuse opportunities and implement nature-based solutions;
Adapt local/regional binding guidelines on where to build and how to build to mitigate sprawl (coordinated spatial planning);
Include nature-based solutions in local flood prevention and climate adaptation strategies;
Establish a local/FUA/regional reuse agency for utilising under-used spaces.

Territorial approach is crucial for sustainability goals

Author: Daniel Baliński

Daniel Baliński is deputy director of the Strategy Department in the Polish Ministry of Funds and Regional Development and co-coordinator of the SUL-NBS Partnership

In the Urban Agenda Partnership we have been working on strengthening sustainable land use practices and implementation of NBS in Europe. The evidence from ESPON studies was an integral part of this work, and cooperation with projects such as GRETA and SUPER was established, whereby we looked for synergies and exchanged expertise. The results of the SUL-NBS Partnership show that a territorial approach is crucial for achieving sustainability goals, but it is still not sufficiently utilised. Cooperation in functional urban areas (FUAs) – that is, beyond administrative borders of a city – helps to manage land use and deal with urban sprawl, but joint FUA planning, especially spatial planning, is often lacking when looking at the European context. In order to promote the FUA approach to urban planning and management, especially in regard to urban sprawl, the partnership prepared a guidebook on FUA cooperation with recommendations to different governance levels. The guidebook draws from, among other things, ESPON projects, such as SPIMA (Spatial Dynamics and Strategic Planning in Metropolitan Areas) and adds best practices and recommendations from the partners. For example, in Stuttgart Region, Germany, coordinated spatial planning at the FUA level contributed to reduced land take; and, in Poland, integrated territorial investments in FUAs aim to reduce the costs of urban sprawl, e.g. through integrated transport projects. Following the work of the Urban Agenda, Lithuania, a SUL-NBS partner, decided to set mandatory guidelines for local spatial plans to introduce cooperation within regions on a partnership basis, with a view to a functional approach in urban planning and governance. This rising popularity of the FUA approach calls for even more territorial research showcasing the benefits of FUA collaboration in the land use and NBS context, as well as equiping decision-makers with easy-to-apply tools, targets and indicators.

Urban green infrastructure and reuse of spaces and buildings: views from Croatia

Author: Željko Uhlir

Croatian towns and cities face similar challenges to other European towns and cities. Some of the most common and contemporary urban issues are certainly monocentric territorial development, urban sprawl and unsustainable urbanisation, depopulation and migration, and challenges induced by climate change. Each of these challenges needs to be approached separately, but they also need to be considered jointly, as they are intertwined and co-dependent.

The Croatian territory is developing in a polycentric manner around four urban centres: Zagreb, Rijeka, Split and Osijek. However, the polycentric development model is not fully effective. Zagreb, as the capital, the administrative and cultural centre of Croatia, diminishes the importance and role of Croatia's other large, medium-sized and small cities. This causes intra-state migration, the depopulation of other Croatian cities and rural areas, and ultimately results in uneven territorial and urban development. Population growth in some and population loss in other regions result in the use of 'instant' urban and spatial solutions that almost always have negative and long-term consequences.

> *The European Green Deal is not only a growth strategy but also the foundation of the EU's recovery strategy*

One of the key elements, common to all spatial development challenges, is the principle of sustainable land use, since all challenges are, in one way or another, related to land use, its management and planning. While continuously growing cities and their functional areas are confronted with environmental pressures, some smaller towns need to cope with shrinkage and economic decline. At the same time, there is a growing need for predominantly public spaces and facilities. There are spatial resources in cities that have the potential to meet this need, without unnecessarily occupying undeveloped natural areas and consuming scarce spatial resources.

To address these issues, the Croatian Ministry of Construction and Physical Planning has introduced two new priority topics to its work: the development of green infrastructure (GI) in urban areas and a circular economy for buildings and spaces. There are numerous benefits of GI implementation in urban areas, such as temperature regulation, the reduction of heat island effects, the improvement of air, water and soil quality, the provision of recreational areas, improvements in health and the quality of life, and the strengthening of cities' resilience to climate change and the reducing of the adverse impacts of cities on the climate. Likewise, reusing spaces and buildings is an effective way of reducing urban sprawl and its environmental impacts, and keeping neighbourhoods inhabited and vital.

Vacant buildings and brownfields can be adapted to new uses or transformed into public spaces, thereby contributing to regenerative spatial and urban planning. All of this should be done while applying the overall principles of the circular economy.

Croatia has recognised the inseparable link between the topics of GI and the reuse of buildings and spaces, and their contribution to the wider theme of the development of the circular economy.

To enable, induce and encourage the development and implementation of projects, the ministry initiated the development of two strategic documents, which set the legislative and implementational foundation for these two topics. Two programmes, i.e. one on GI in urban areas and one on the reuse of buildings and spaces, were developed for the period up to 2030. The complementarity and interconnectedness of the two programmes are clearly emphasised. The objectives of the programme on the development of green infrastructure are to improve the planning and management of GI, build new and refurbish existing GI, and raise awareness and enhance knowledge of the benefits and opportunities of developing GI. On the other hand, the programme on circular management of spaces and buildings encourages the renovation of neglected, unused and inadequately used spaces and buildings, while introducing a management system and the use of sustainable solutions.

These two topics are completely in line with the new and ambitious growth strategy proposed by the European Commission – the European Green Deal. With regard to the current pandemic and the consequent global economic crisis, the European Green Deal is not only a growth strategy but also the foundation of the EU's recovery strategy. The European Green Deal strives for the transformation of the European economy to a resource-efficient and competitive one, with the overall goal of achieving carbon neutrality by 2050. It develops an ambitious direction for a green and sustainable Europe and underlines the crucial importance of intensifying action on increasing resilience.

By developing and implementing GI in urban areas and by reusing spaces and buildings while avoiding the exploitation of limited spatial resources, we will contribute to sustainable development, strengthen the resilience of our territories and urban areas, and improve health and the quality of life, as well as helping to achieve the common objectives of the European Green Deal.

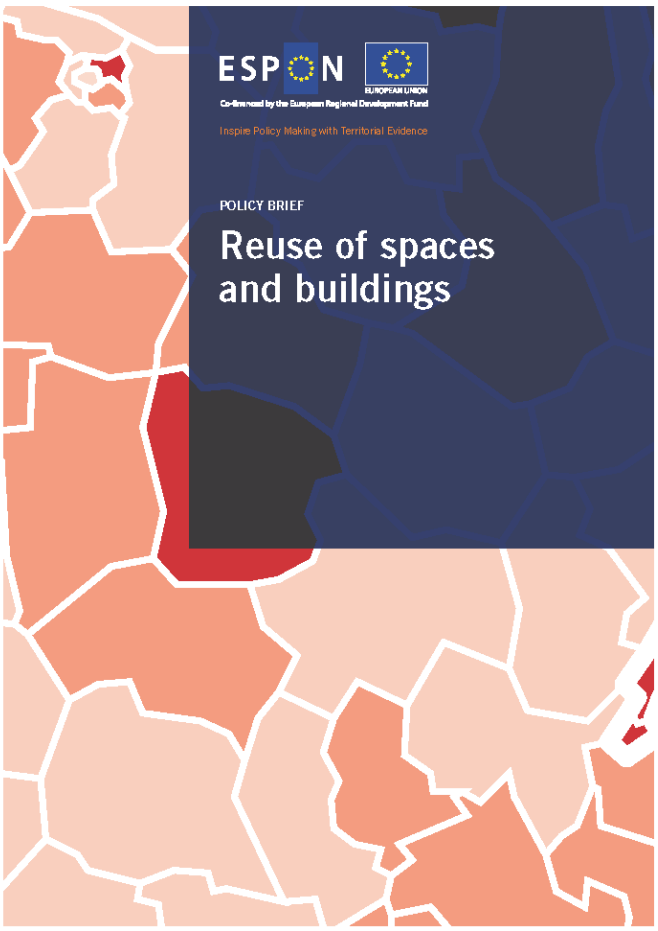
Latest ESPON policy briefs

Reuse of spaces and buildings

The policy brief is based on the results of the ESPON applied research activities CIRCTER, COMPASS, GRETA, SPIMA and SUPER and the targeted analysis ENSURE.

May 2020

www.espon.eu/reuse-spaces-and-buildings



Green infrastructure in urban areas

The policy brief is based on the results of the ESPON applied research activity GRETA and the targeted analysis MSP-LSI.

May 2020

www.espon.eu/green-infrastructure-urban-areas

State of the European territory: A key contribution to the debate about the future EU

As a geographer and a Member of the European Parliament, I tried to strengthen the EU's territorial dimension. ESPON inspired me to go deeper into the debates and I expect that the new 'State of the European Territory' will do so in the upcoming debates on the future of Europe.

The recognition of territorial cohesion as one of the EU's goals in the Lisbon Treaty was a breakthrough. In the slipstream, I received broad support in the European Parliament Plenary for a more integrated approach to EU sectoral policies. With a stronger role for cities, regions and stakeholders in cohesion, investment and the internal market, we were able to respect diversity and specific needs all over Europe. The result, as recognised by the Organisation for Economic Co-operation and Development (OECD), has been the substantial growth and convergence in the gross domestic product (GDP) of all Member States and regions.

Looking back at my contributions in the European Parliament, I still embrace 'the three Cs', as introduced in the Green Paper on Territorial Cohesion (2008), namely a common basis for a balanced Europe, supporting:

concentration, where necessary, boosting GDP in front-runner cities and regions; under the condition of

connection, where the EU offers open data and offers citizens ways to connect through digital and physical networks; and

cooperation in all relevant fields, based on citizens' perspectives, in all parts of the EU.

In 2020, the three Cs still provide an EU-wide architecture for finding answers to globalisation, climate change and the role that territorial stakeholders play in the European space.

I am happy that 'Smart Specialisation', introduced by the European Regional Development Fund in 2014, shows that there has been a significant learning curve in relation to the three Cs.

In recent years, hundreds of specialised consortia have been built, assisted by the EU Joint Research Centre (JRC) in Seville.

Author: Lambert van Nistelrooij

The JRC supports territorial stakeholders all over Europe in the field of research and through structural funds programmes. This approach for a greener Europe that promotes growth and jobs will get a fresh boost in the post-2020 multiannual financial framework (MFF).

Will these first steps make Europe more successful at tackling the upcoming challenges? Only partly; to fully address these challenges, we need deeper alliances between leaders and citizens in all policy fields. We lack shared visions, shared missions and shared results to work on.

In February 2020, Vice President Dubravka Šuica and Commissioner for Cohesion and Reforms Elisa Ferreira highlighted their expectations for the upcoming debate on the future of Europe. They recognise the need for a strong territorial dimension in these consultations. The awareness of citizens is strongly influenced by their position in cities and regions. The Brexit referendum brought surprises and revealed striking differences throughout regions and cities.

> *I see this ESPON study as a key contribution to the Conference on the Future of Europe. In line with the concept of 'leaving no one behind', a renewed territorial policy is needed*

The “State of the European Territory” is a valuable tool for policymakers on European, national, regional and local level.

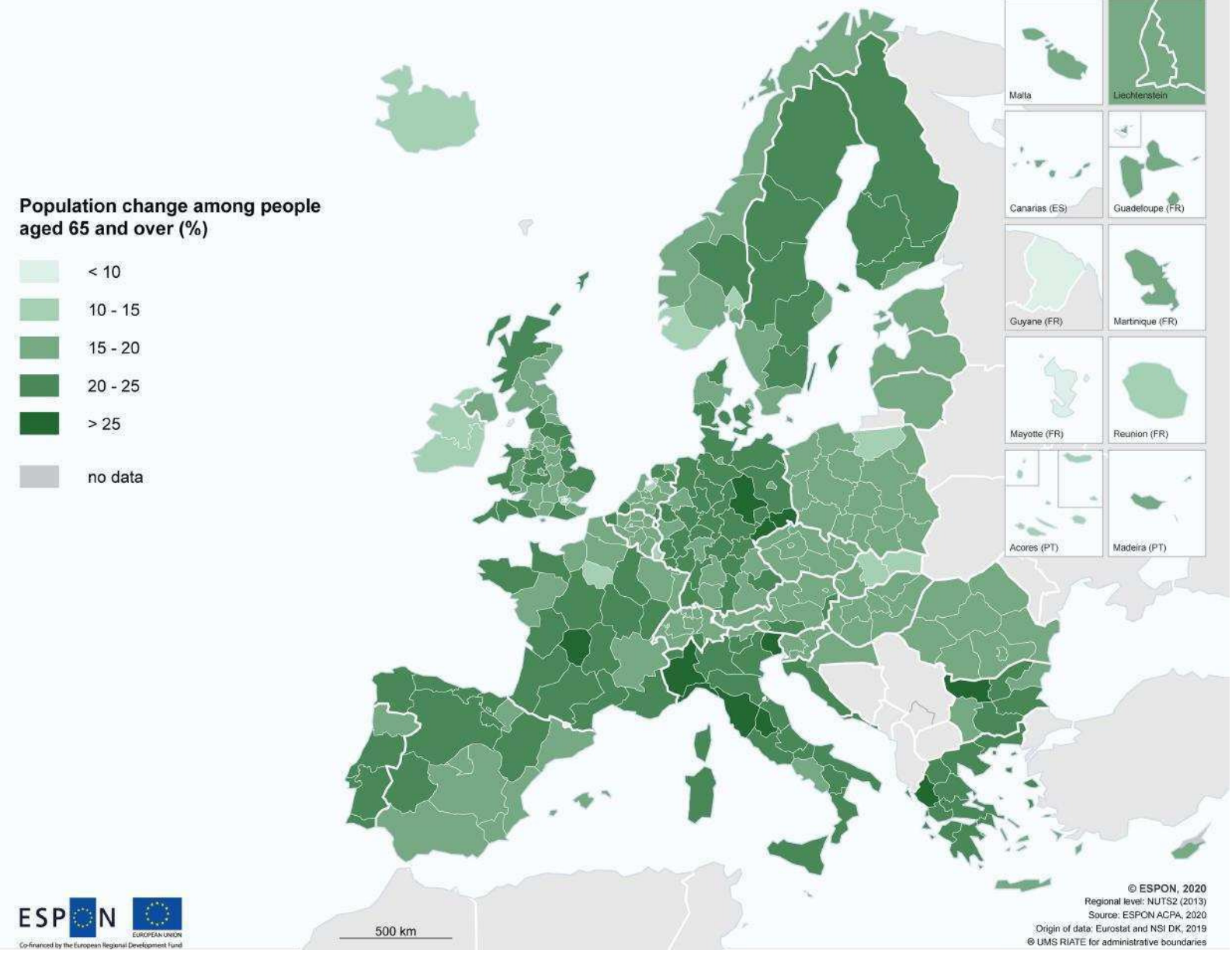
It sheds light on the main territorial development trends in Europe and offers evidence and policy advice to those designing policies - especially for the post-2020 period.

The messages of the “State of the European Territory” can be useful for anyone involved or interested in EU development policies and particularly Cohesion Policy.

In our search for ways of increasing the level of engagement of citizens and stakeholders, ESPON has a lot to offer. ESPON director Ilona Raugze gave a clear signal by introducing two journalists to present the draft 2020 State of the European Territory report at the ESPON seminar in November 2019 in Helsinki. ESPON specialists speaking to their Member State colleagues does not bring breaking news to citizens. Having journalists presenting upcoming publications is, therefore, an encouraging step towards talking directly to citizens, using less specialist slang’

But the content of the 2020 State of the European Territory report is even more important. The 2020 report highlights the EU-wide effects of climate change, demographic change, and digitalisation and its take-up in education and business. It provides details of upcoming developments in Europe’s transport sector and digital economy’ We see new patterns in functional areas and new cross-border entities. It demonstrates the need to give renewed attention to rural communities. Existing administrative borders have become outdated because of the growth of metropolitan areas, and cross-border developments are underestimated. Labour shortages bring a need for new policies and priorities. Above all, upcoming geographical patterns will not obey current nationalistic tendencies.

The European Commission will launch soon the bottom-up debate on the future of Europe.-which was postponed due to the coronavirus crisis. The 2020 State of the European Territory report brings clear information on the trends and perspectives of our continent. Not just a report to gather dust in a drawer in Brussels, I see this ESPON study as a key contribution to the Conference on the Future of Europe. In line with the concept of ‘leaving no one behind’, a renewed territorial policy is needed. A deeper understanding of the territorial dimension will bridge the gap between the EU and its citizens – it will be the glue that keeps the EU together.



Healthy and active ageing is more important than ever



Authors: Erik van Ossenbruggen, Thijs Fikken, Mats Stjernberg.

In the Decade of Healthy Ageing (2020–2030), the COVID-19 crisis raises the stakes in terms of the need for active and healthy ageing practices across the globe.

The resulting lockdowns and physical distancing practices challenge daily life as we know it. In our bustling, densely populated cities, the changes are enormous and our older citizens are among those most affected. In this crisis, the need for a long-term strategy on active and healthy ageing is more evident than ever.

The fact that most regions in Europe have experienced significant population ageing in the last two decades, and that this trend will continue in the coming decades, further underlines this notion.

Older people and COVID-19

COVID-19 sheds new light on the outcomes of the ESPON ACPA study – Adapting European Cities to Population Ageing. It is evident that the virus hits older people the hardest.

For example, in Spain, 90% of COVID-19-related victims are 65+ years old. A similar situation applies in other countries studied as part of ACPA, such as France (91%), the Netherlands (94%), Norway (96% 60+), Sweden (95% 60+) and the United Kingdom (87%). Unfortunately, data on COVID-19 at a detailed geographical (urban) level are not readily available for all stakeholder cities, and the relationship between COVID-19 and settlement size seems to be complex. In some countries, including Spain, Italy and the Netherlands, cities do not seem to be disproportionally affected.

In France, results are mixed: the city regions of Paris, Strasbourg, Lyon and Lille have the country's highest COVID-related death rates, but other urban regions do not have higher death rates than their hinterlands. On the other hand, there is evidence from some countries analysed that urban populations are over-represented in death counts, such as in Norway, Sweden and the United Kingdom. In the United Kingdom, Salford, a borough in Greater Manchester's metropolitan area, ranks seventh in the top 10 of the United Kingdom's 346 regions, based on the number of COVID-19-related deaths per 1 000 inhabitants.

What do we see around us? The role of digitalisation

Based on the characteristics of older people in cities, a couple of impacts of COVID-19 on this population group can be observed.

First, we can see that older people form a disproportionally vulnerable target group for the virus. Places such as care homes seem to play an important role in the spreading of the virus. In many countries, COVID-related deaths in care homes were originally not included in official statistics, and pilots in Belgium, France, Spain and the United Kingdom suggest that official death rates are two to five times higher if these deaths are included.

The situation could be worse in cities than in other areas, as preliminary evidence suggests, partly because of the larger population density in urban environments. This means that physical distancing measures are paramount for older people in cities. Digital tools play an important role here. COVID-19 has been a catalyst for the use of digital tools to facilitate physical distancing.

> *improving digital literacy for older people should become an even bigger priority: it is no longer simply an advantage but a necessity, to prevent loneliness*

Sceptics claim that these tools cannot replace face-to-face interaction. The COVID-19 crisis is pushing the frontiers of this assumption and proves that we can do more than ever imagined through digital tools.

Recent statistics indicate that certain ethnic minority and migrant groups have been most severely affected by COVID-19.

Among the countries studied in ACPA, this can be seen in at least Norway, Sweden and the United Kingdom, where people with certain ethnic and socio-economic backgrounds are over-represented in the number of COVID-19 cases and deaths.

This is manifested spatially in, among other cities, Oslo (Gamle Oslo borough) and Stockholm (Rinkeby-Kista and Spånga-Tensta), where certain neighbourhoods with relatively high proportions of older people of Somali origin have had disproportionately high numbers of COVID-19 cases.

Second, with physical distancing, feelings of loneliness are increasing.

Older people have always been a group at risk of loneliness, but the situation is being made worse by the current crisis, as it requires minimising or even avoiding physical contact. Digital communication tools theoretically provide a solution here, although the majority of older people tend to prefer direct contact.

> *COVID-19 has been a catalyst for the use of digital tools to facilitate physical distancing. The COVID-19 proves that we can do more than ever imagined through digital tools*

What can we do next?

To counteract the impact of COVID-19 on older people in cities, action is necessary in relation to multiple aspects. First, improving digital literacy for older people should become an even bigger priority: it is no longer simply an advantage but a necessity, to prevent loneliness. In this regard, Barcelona's Vincles project – showcased in the ACPA policy handbook – is an inspiring example of good practice (ESPON, 2019a).

Second, the communication of information to older people should be considered. Traditional media such as television broadcasts work for native speakers, but immigrants tend to have trouble understanding these messages. The City of Amsterdam has recently experimented with a 'social distance bus' that drives through the city's most multicultural neighbourhoods (ESPON, 2019b). Loudspeakers on the bus broadcast warnings and medical advice in seven languages (in addition to Dutch): Arabic, English, Papiamento, Somali, Spanish, Turkish and Twi (a Ghanaian language).

Third, it is not just about short-term solutions. A long-term plan is needed. While the COVID-19 crisis came to our cities in an instant, the effects are here for the long term. European populations are still ageing and the share of older people is expected to rise up to 30% in until 2030. The COVID-19 pandemic has made long-term strategies on active and healthy ageing priority number one.

Active and healthy urban ageing requires inclusive and holistic policy-making

In light of the current COVID-19 crisis, planning for age-friendly cities that foster active and healthy ageing seems more important than ever. While older age groups in general have been most severely affected, older people with a lower health status are most vulnerable. Hence, the best way to ensure good health for senior citizens is by promoting healthy and active ageing throughout people's lives. It is paramount that policy action towards achieving this is taken at all levels of decision-making and planning, ranging from the global level to the levels of cities and local communities.

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ESPON, 2019b. 'ACPA – Adapting European Cities to Population Ageing: Policy Challenges and Best Practices. Targeted Analysis – Case Study Report: Amsterdam.'

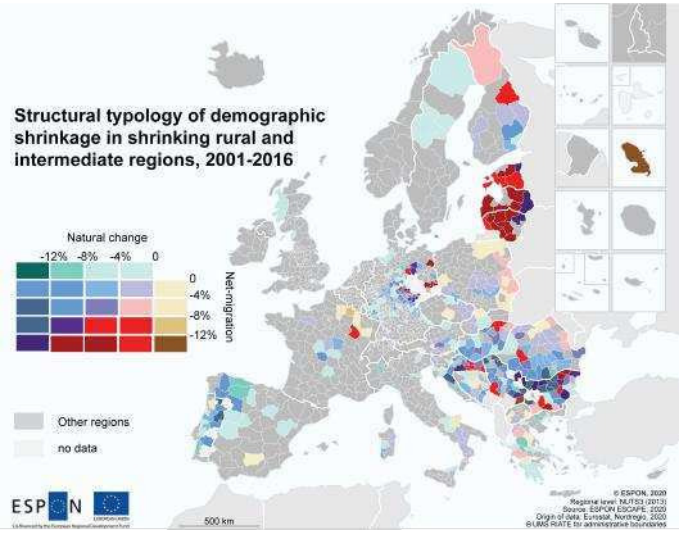
Shrinking Rural Areas: A fresh look at an old problem

Author: Andrew Copus

Rural depopulation is not a new phenomenon. EU policies have responded in various ways, and with different degrees of effectiveness, since the early years of the Union. However, in the past five years, there has been a strong renewal of interest in this issue, across several EU institutions.

The European Parliament has produced a report on the role of Cohesion policy in tackling rural depopulation and two fact sheets summarising the evidence. The Committee of the Regions also commissioned a report, and subsequently issued an opinion document. The European Network for Rural Development organised a workshop on the subject in 2018. The Rural, Mountainous and Remote Areas (RUMRA) Intergroup has been established, and the Commission has appointed Dubravka Šuicaas as Vice-President for Democracy and Demography.

Rural shrinking has become a very visible phenomenon – associated with powerful manifestations of popular discontent. But there is, at the same time, rising optimism about the potential offered by subtle, incremental changes in technological, market and social contexts, which may facilitate the 'repopulation' of depleted rural areas, or adjustment to the demographic status quo. The COVID-19 crisis will no doubt accelerate technological change and stimulate further debate.



Different kinds of rural shrinkage

It is necessary to be clear what we mean by 'shrinkage'. Back in 2008, Grasland defined a shrinking region as one 'that is losing a significant proportion of its population over a period greater than, or equal to, one generation' (Map 1). Population decline may take place as a result of ongoing outmigration – we term this 'active' shrinkage. By contrast, there are regions that have positive net migration rates, but that are nevertheless shrinking because of their age structure – this is 'legacy' shrinking. Of course, this is not a binary classification, but a continuum. There is a wide variety of combinations of migration and natural change (Map 2).

Furthermore, demographic change is not independent of other socio-economic processes. The ESPON ESCAPE team distinguishes between 'simple' (demographic) and 'complex' shrinking, which acknowledges that demography is part of a wider systemic process.

Shrinking rural areas may, therefore, be distinguished not only on the basis of the severity of their population decline, and whether this is of the 'active' or 'legacy' type, but also on the basis of different kinds of causal process. We suggest four hypothetical types:

Locational disadvantage: this type is associated with 'negative' locational characteristics (isolation, sparsity, poor endowment of natural resources, poor-quality agricultural land, proximity to borders, etc.).

Agricultural restructuring: this is driven by rural–urban migration associated with technological changes in agriculture, and by the lure of urban educational and employment opportunities and lifestyles.

Peripherisation: this type of shrinking process has some similarities with the first, but it is distinguished by being the consequence of macro-scale processes of spatial reorganisation of economic activity (globalisation).

Events and transitions: this type involves historical events or transitions, such as those experienced by the central and eastern European countries at the end of the socialist era in 1989, the Balkan wars in the 1990s and the EU integration process in the 2000s. All of these events have had lasting consequences for rural demographic trends.

A better understanding of these socio-economic processes of decline is foundational to the design of appropriate forms of policy to address the demographic outcomes.

How has EU policy responded?

We cannot understand the EU policy response without acknowledging the interdependencies between different contexts, including:

major external events, such as the 2008 financial crisis, and enlargement;

changing technology and its effect upon patterns of economic activity;

changing rural development theory and paradigms;

the EU's meta-strategy (agenda 2000, Lisbon agenda, Europe 2020);

the learning experience of the EU's policy structures and agencies.

The effects of these are explored in detail in the ESCAPE project's draft final report, which will be published later in the summer. However, the key lesson to be learned from almost half a century of EU intervention concerns the balance between 'exogenous' and 'endogenous' development approaches (ECORYS Research and Consulting, 2010).

In the case of rural development policy, two broad periods can be distinguished. From 1975 to around 2005, the common agricultural policy (CAP) supported the incomes of farmers in 'less favoured areas' (LFAs) through the 'exogenous' instrument of livestock headage payments. Ameliorating population decline was consistently cited as a key justification for this policy.

In the new century, the Lisbon strategy, with its emphasis on jobs, growth and innovation, resulted in the objectives of the 'territorial' measures within CAP Pillar 2 being expressed (and later evaluated) in terms more of employment and economic activity than of the maintenance of population or rural communities. Later, the Europe 2020 strategy added sustainability and inclusion. Furthermore, the evolution of the menu of rural development measures, and the gradual increase in the flexibility accorded to Member States in putting together rural development programmes (RDPs), allowed some of the 'older' Member States to focus their RDPs upon agri-environment measures, to the exclusion of measures that might help to counter depopulation. Measures that have more relevance to depopulation (village renewal, basic services, etc.) consistently received a higher proportion of Pillar 2 expenditure in the 'new' Member States of the east and south. However, overall expenditure on these 'endogenous' measures has always been comparatively low.

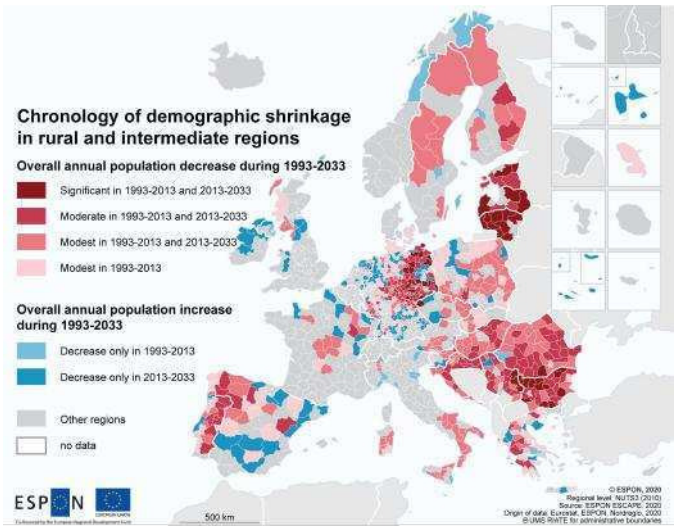
After the reform of the structural funds in 1989, EU regional policy was delivered through five (later six) objectives, three of which covered most of the shrinking areas of rural Europe, and two of which were at least partly defined by population decline or sparsity.

However, the approach tended to view cities and towns as (exogenous) 'engines of growth', leaving the needs of (shrinking) rural areas to be met through 'spread effects'. Since 2000, 'Lisbonisation' has shifted attention away from compensation for disadvantage, and 'negative' issues such as depopulation, towards supporting development potential, in accordance with 'jobs, growth and innovation' objectives. Such goals are most easily achieved in the context of cities, towns or villages. It appears that interventions to improve infrastructure, create jobs and nurture innovation in settlements, while reducing inter-regional disparities, have had a polarising effect within regions – doing little to ameliorate rural shrinking, or even exacerbating it.

For much of the post-2000 period, one crucial policy instrument, with considerable potential to address rural shrinking, LEADER, has remained outside the two mainstream policies discussed above, as a 'community initiative'. In the current programming period, it has become part of community-Led Local Development (CLLD).

It is perhaps in recognition of the limitations of the 'Lisbonised' CAP and Cohesion policy that 'policy-driven analysis', sponsored by various EU institutions, has explored a number of approaches very relevant to the problem of rural shrinking. These include smart specialisation, smart Villages, Urban-Rural Partnerships, Inner Peripheries, and Functional Rural Areas.

Thus, rural shrinking has not been ignored by EU policy – there is no shortage of competent instruments. However, there is today a serious lack of coherence and strategy. The policy legacy is like a collection of DNA fragments that do not amount to a recognisable organism!



The Hague and the urban circular collaborative economy

Triggered by national political incentives, the City of The Hague started working on creating a circular economy in early 2014. In 2017, this was further operationalised by The Hague's sustainability and waste management departments in a metabolism study.

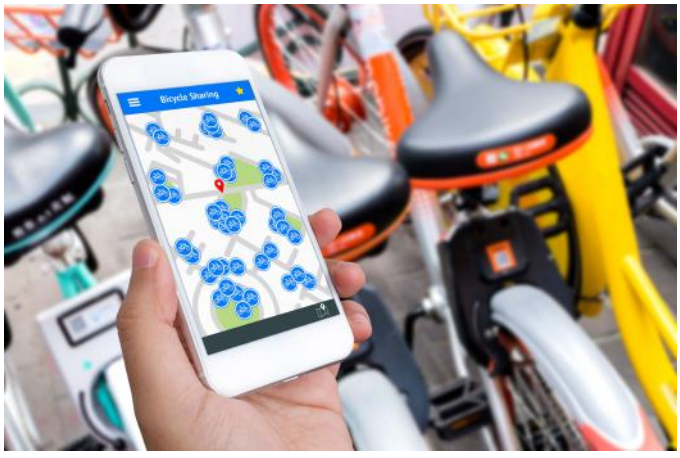
This study defined the three most promising sectors, namely public administration and public services, construction and real estate, and the commercial sector.

Not long before this, in 2016, the Dutch Ministry of the Interior and Eurocities invited the City of The Hague to participate in the Urban Agenda Partnership on Circular Economy. In the partnership The Hague quickly took up a prominent position in leading three actions, in the fields of waste legislation, resource management and the collaborative economy. In the context of the collaborative economy, the City of The Hague, together with seven other cities, Member States, regions and organisations of the urban agenda partnership, applied for an ESPON Targeted Analysis on the Urban Circular Cooperation Economy.

This ESPON targeted analysis of urban circular collaborative economy (UCCE) initiatives was led by The Hague's senior advisor on waste and the circular economy, and European affairs officer **Jan Harko Post** together with **Jay Navarro Oviedo**, an expert on the circular economy, collaborative economy and participatory urban governance. ESPON interviewed them about the project and its results.

Jan Harko Post

Jay Navarro Oviedo



Why did you propose launching the UCCE study?

Harko Post: The sharing or collaborative economy has always been an integral part of our circular economy plan in The Hague and at the Urban Agenda partnership as well. Through this study, we wanted to provide policymakers with evidence-based tools to make better use of the collaborative economy in their territories. We also wanted to contribute to a better understanding of the urban circular collaborative economy (UCCE) by defining the concept, its typologies and potential impacts.

Navarro Oviedo: In our work, the focus is often on the 'hardware' or systems world of the circular economy (e.g. resource management, industrial symbiosis, waste legislation). With this targeted analysis, we wanted to understand the human aspect of the circular economy, the 'software' or life world (e.g. civic participation, grassroots innovation, circular consumption).

What might be the impacts of the study on The Hague?

Harko Post: For The Hague, we see great potential in the UCCE to combat poverty and increase social cohesion and civic participation. The results of the study will provide insights into which UCCE initiatives to support in scaling up and which ones we can replicate, focusing on the aims and the policy instruments we can use.

ESPON: The study was implemented in cooperation with several cities, regions, countries and organisations united within the EU Urban Agenda Partnership on Circular Economy. What are the most striking results?

Harko Post: We encountered a massive lack of data on a local level. The available data on both indicators and the impact of UCCE were mostly on a national level. Meanwhile, UCCE is a subject that is inherently very local. The available literature on the sharing economy was also directed towards the for-profit sharing economy and dealt with the big global sharing platforms, while the angle of our TA on UCCE was aiming at the local, for-benefit, sharing economy. It would be good to consider more action research to gather this unavailable type of data in the future.
The most striking result was the interconnectedness of UCCE with social, environmental and economic policy domains. In all territories, UCCE has the potential to work as a unifying factor and a tool for transversal collaboration.

Navarro Oviedo: It quickly became clear that the UCCE is a very diverse multi-domain economy, from sharing indoor and outdoor urban space to food and transport sharing. It is characterised by scattered smaller initiatives, which together create the basis for a strong local economy.

Moreover, our old economic models or indicators cannot help us understand this commons-based new economy. In our old economic thinking, we define success by profit, whereas in the UCCE success is also measured by social and environmental return on investment.

ESPON: If tomorrow does not look like yesterday, what should be the contribution of the UCCE to this transformation?

Harko Post: UCCE is a perfect example of 'glocalisation'. Global issues such as environmental protection and economic crisis are being tackled on a local level. It is all about finding the perfect balance between the blessings and necessity of both the global and the local.

Navarro Oviedo: Many solutions for the current crisis, or any crisis for that matter, can be found in these UCCE grassroots resilience initiatives. UCCE will have a pivotal role in creating the new post-corona economy, which will be much more sustainable, local and resilient

Scope and use of digital plan data platforms in Europe

Authors: Christian Fertner, Julien Grunfelder

In the past decade, many European countries have taken significant steps towards setting up digital plan registers and digitize spatial planning processes. However, comparative evidence on the possibilities offered by digital plan data and their actual use is missing. At the same time, the digitization of plan data can be assumed to have a considerable impact on planning practice.

ESPON DIGIPLAN (Evaluating Spatial Planning Practices with Digital Plan Data) will look both at the provision/production side, i.e. how plans are digitally represented, and at the user/consumption side, i.e. how plan data are used and how they influence planning practice.

Driven by slightly different questions but a shared interest, stakeholders in Denmark, Norway and Switzerland asked ESPON to help them with a targeted analysis.

At two meetings in Copenhagen, stakeholders and the research team intensely discussed the planned analysis, and the appetite of both stakeholders and the research team for the analysis is still growing. Both stakeholders and researchers expect interesting and eye-opening results with this targeted analysis and are happy to share their first insights. More will follow next winter.

What is digital plan data?

Digital plan data may refer to information about the content of plans and the planning process. In a narrow sense, we can define digital plan data as geodata combined with planning regulations and intentions, saved in digital plan repositories or registers. However, these registers play various roles in the planning process of different countries. For example, a plan register can be primarily for information purposes, displaying information over a publicly available portal collected by a central authority. It can also be a system supporting the planning process, used by municipalities to produce their plans, communicate them to other authorities and organise hearing processes. It can even act as the sole repository of legally binding planning regulations. There are many variations across types of plans and countries. Two examples from the project are described below: information on Norway and Switzerland is still being collected, so we consider the examples of Luxembourg and Denmark.

Digital plan data registers in Luxembourg

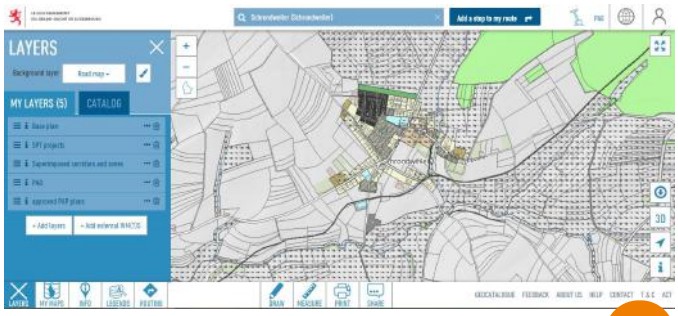
The ongoing process of the digitalisation of plan data in Luxembourg, driven by the Ministry of the Interior, started four years ago. The main purpose was to create an open access geodatabase containing plan data at both municipal and national levels on a single platform. The standardisation and automatised assessment (e.g. shape, superposition) of the input data has contributed to better workflows in the planning process. They have also facilitated the creation of a high-quality dataset of comparable plan data nationwide. Currently, local plan data for a third of the 102 municipalities are available on the platform (map.geoportail.lu/theme/pag). Full coverage is expected by early 2022.

The availability of such country-wide plan data would allow, for instance, the share of constructible areas and its evolution over time to be easily calculated. Such information is of interest not only for the Ministry of the Interior, but also for others working with analysis, e.g. on impact assessment, of municipal and national planning. One of the added values of the digital platform containing plan data is that it generates a report that gathers all planning regulations affecting any particular parcel included on the platform. This reduces the workload for municipalities, which before would have had to extract such information manually.

Digital plan data registers in Denmark

In the 1990s, the first ideas of a digital plan register were discussed by some municipalities and the national planning authority in Denmark. In 2006, the first Danish digital plan register was established. Today, it includes all plans covered by the law on planning, ranging from national directives such as the Finger Plan to local development plans created by municipalities, covering, for example, new residential areas. The data include geodata, e.g. more than 100 000 currently effective municipal plan zone polygons, with information on regulations, but also the actual plans as PDF files. The latter is (still) the legally binding version of the plan. Municipalities are required by law to upload their data and plans to the register, while the national planning authority (the Danish Business Authority) maintains the system. All data are publicly accessible and downloadable through a map and database portal. It is worth mentioning that the Danish planning law focuses on the planning process and thus no map symbols are defined in the law. This means the municipalities have different ways of defining regulations and intentions in their plans, which requires flexible definitions in the plan register.

Recently, the register was significantly extended, with more detailed information being added. This was driven by the Danish tax authority, which will use the data as input for a new assessment of property values, planned to start in autumn 2020. This latest change is particularly interesting, as the digital plan data register will directly affect other areas, in this case the property tax that land owners have to pay, even though the registered information is not legally binding in itself, but instead is a required representation of the legally binding plan version, the attached PDF document.

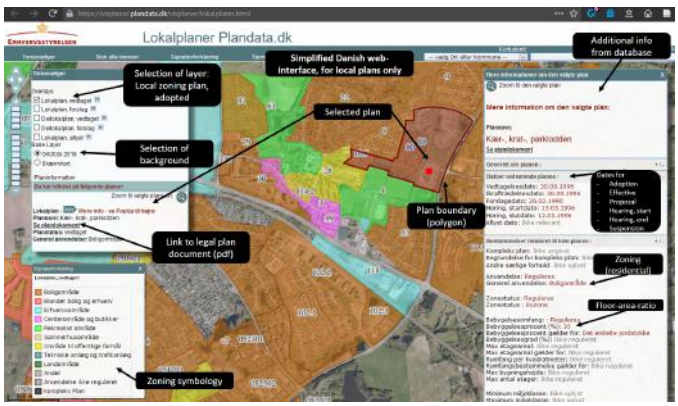


Integration of plan data and impacts on planning practice

Increasing digitalisation and the increasing availability of plan data also lead to integration with other sectors. Data from the system, which was built (and the data defined) mainly for planning professionals, can be used in other contexts. This requires high-quality data but also gives rise to questions regarding the system's impact on planning practice.

One could imagine a more conservative approach to planning. On the other hand, comprehensive information on plans and plan proposals can improve the work of many stakeholders.

It can also increase transparency by making planning and its results available for public debates. In ESPON DIGIPLAN, we will explore these questions over the summer and autumn, providing an overview of 15 ESPON countries and in-depth case studies for six of them (Austria, Denmark, France, Germany, Norway and Switzerland).



Contributors: Anna Hersperger, Professor at Swiss Federal Institute for Forest, Snow and Landscape Research; Marius Grønning, Associate professor at Norwegian University of Life Sciences; Sara Folvig, Academic officer at University of Copenhagen; Ole Pagh Schlegel, Danish Business Authority; Hilde Johansen Bakken, Norwegian Ministry of Local Government and Modernisation); Silvia Jost, Swiss Federal Office for Spatial Development

Changing ground: The future place of the productive city

Authors: Valeria Fedeli

Over the past decades, metropolitan areas across Europe have experienced a considerable restructuring of their economic base. For numerous reasons, productive activities have largely been at odds with modern urban economies, resulting in industry moving out and being discouraged from operating in central urban areas.

This move has been supported by public policy, which has favoured sustainable development associated with housing, public amenities and commercial activities in urban cores. Activities associated with the productive sector have been considered 'weak', less profitable and incompatible with popular visions of a 21st century city.

In contrast, trends are emerging that suggest that the increasing peripheralisation of industrial activities to urban edges can be undesirable, and even counterproductive, for metropolitan areas looking for economic development, social cohesion and sustainable urban development. New emerging industrial businesses are also forcing cities to review years of urban gentrification and anti-industrial policy.

The ESPON project MISTA (Metropolitan Industrial Strategies & Economic Sprawl, takes on part of this challenge. It looks at the recent past and the near future of metropolitan industries to help planners and policy-makers make informed decisions on industrial activities. What is production today? Where is the manufacturing sector located in the contemporary city and where has it moved? What is the future role of industry in the city? Should we take for granted that productive activities should leave the city, or are there signs of a new coexistence within the city? The project aims to challenge the current divided and separated narratives on this issue and explore new opportunities for a productive city.

What productive activities exist and grow in cities today?

A first important question is the nature of production in city regions today, as scholars reflect upon the changing nature of manufacturing in the contemporary world. New business models, the progressive fragmentation of value chains and the rise of 'hybrid' goods based on blended manufactured and service contents lead to increasing interpenetration between firms and activities in the secondary and tertiary sectors. The boundaries between productive sectors and services are becoming blurred, tending towards a more mixed and 'service-led' identity.

However, comparable data at the sectoral level are officially collected and available only through the standard NACE ( ) industry classification, which is very much based on the traditional production–services dichotomy. To empirically grasp the dynamic evolution of manufacturing and its consequences for sectoral profiles and the ongoing structural change at the metropolitan level, the project uses disaggregated sector-level data at a highly granular (NACE) level. This allows the generation of comparable data more closely related to the hybrid activities of contemporary metropolitan enterprises and the development of sectoral typologies and alternative sectoral aggregations.

The project also extends the analysis to public utility provision (energy and water and waste management); transport and logistics; wholesale and storage; and construction and repair services. These activities play an important role in cities and metropolitan areas, again blurring the boundaries between the manufacturing and service sectors.

> *As a first step, the project develops an original analysis of the 289 metropolitan regions and 58 'first-tier' metropolitan areas The analysis focuses on the longest possible period for which data are available*

How is manufacturing developing in EU metropolitan regions?

A second important question is about the specific role of metropolitan areas in processes of deindustrialisation. To what degree is deindustrialisation a ubiquitous and homogenous phenomenon in European metropolitan regions? Have there been different developments in different types of metropolitan regions, differentiated, for example, by size, by location in old or new Member States or by the city tier? Is it possible to distinguish different types of manufacturing developments at the metropolitan level in terms of the causes of shrinking manufacturing employment?

As a first step, the project develops an original analysis of the 289 metropolitan regions and 58 'first-tier' metropolitan areas (i.e. regions that host national capital and/or have more than 1.5 million inhabitants). These areas can be analysed using NUTS3-level national accounts data from Eurostat and the Joint Research Centre.

The analysis focuses on the longest possible period for which data are available for the crude sectoral breakdown available for these data (i.e. from 1995 onwards). Focusing on industry (i.e. NACE B–E), including manufacturing and the public facilities provision sector, it analyses the development of gross value added (GVA), employment and productivity in metropolitan regions and identifies the relevant drivers of industrial change empirically.

> *The boundaries between productive sectors and services are becoming blurred, tending towards a more mixed and 'service-led' identity*

While employment in industry has shrunk since 1995 in metropolitan regions in terms of volume and share, real GVA in industry has risen significantly despite a declining output share. These basic patterns of industrial development are similar among different groups of metropolitan regions and even between metropolitan regions and all EU regions. Still, more recent trends allow a cautiously optimistic view of the further development of industry in European metropolitan regions: the downwards trends have flattened out and industry shares have been largely stable since the mid-2000s, except for the years of the great recession (2007-2008). In addition, productivity gains seem to have a much greater impact on employment losses in metropolitan regions than a shrinking industry sector (i.e. 'true' deindustrialisation).

The first round of interviews with relevant local stakeholders from the supporting city regions (Vienna, Warsaw, Oslo, Turin, Stuttgart, Riga) showed that quite varied processes are taking place, despite some convergent trends. The relevance of the policy problem to local policy agendas, within quite diversified metropolitan development models and trends, is clear. This was witnessed by the different ideas for both regulatory (taxation, planning) and land policy; as well as by the different institutional (agency) changes that local cases have so far developed in different contexts. This outcome provides the opportunity for reflection and the exploration of these different cases, which can inspire local policy-makers across Europe'?.

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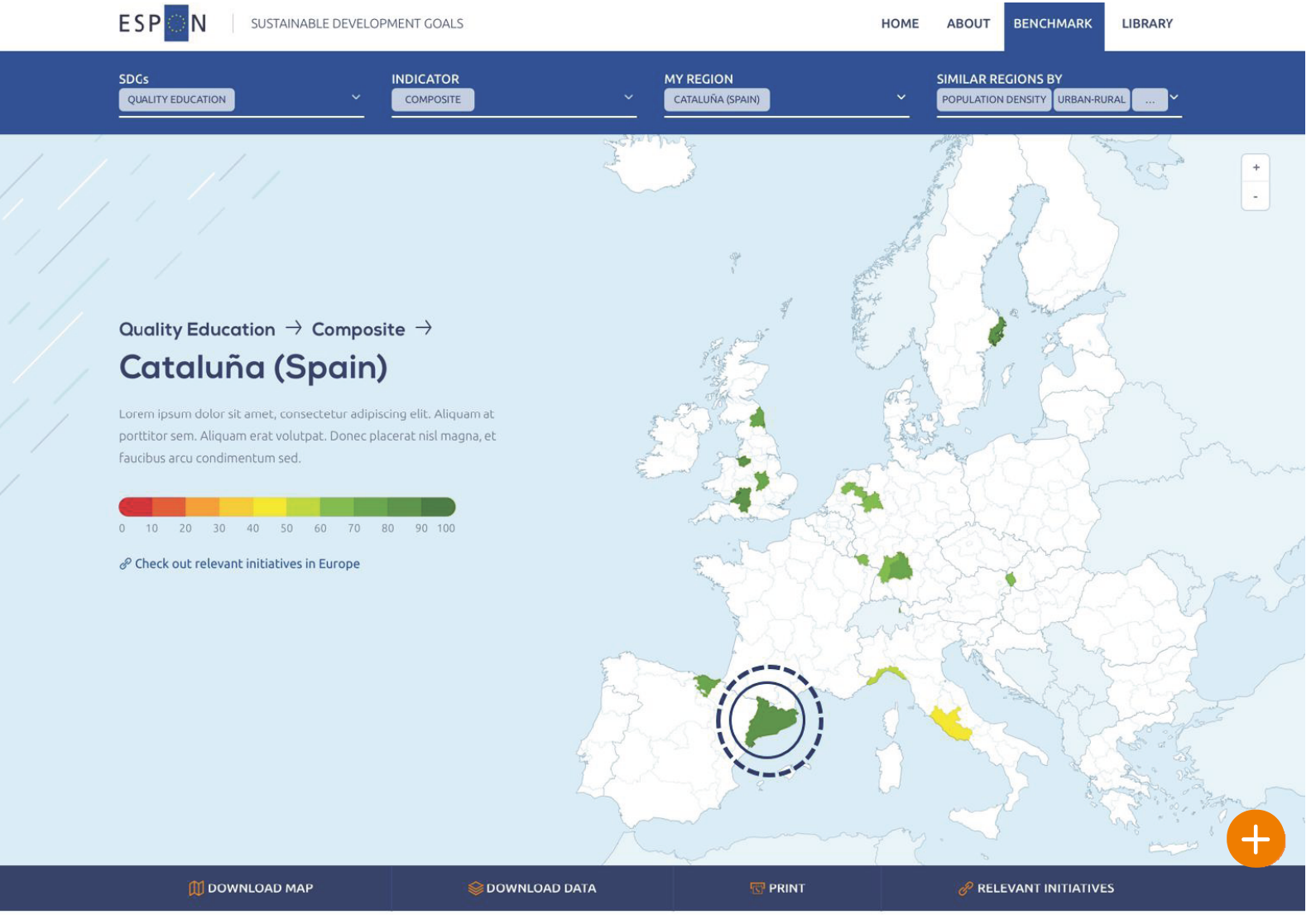
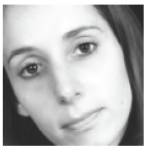


Localising SDG goals

Author: Palina Shauchuk, Paresa Markianidou



In 2015, the UN General Assembly adopted the resolution 'Transforming our world: the 2030 Agenda for Sustainable Development' as a follow-up to the Millennium Development Goals. The agenda sets targets for 17 Sustainable Development Goals (SDGs), with 169 concrete targets and 232 indicators, representing an integrated framework in which each of the goals is indivisible.

ESPON's SDG localising tool – localising and measuring Sustainable Development Goals (SDGs) in cities and regions – offers hands-on support to regional and national policy-makers and citizens alike in terms of localising and achieving the SDGs. This simple, intuitive and user-friendly tool helps policy-makers turn a large volume of indicators into insights, providing answers to questions such as:

Is my region making progress towards achieving the SDG targets?

Is my region lagging behind or leading in achieving SDGs compared with other similar regions?

From which regions in Europe can I draw inspiration to progress towards achieving the SDGs?

Which regions would benefit from targeted support to help step up actions to improve their progress and thus contribute substantially to the national progress towards achieving the SDGs?

To support policy-makers, the tool tracks progress along multiple periods in time, displays the distance to achieving targets by indicator and benchmarks similar regions to showcase and compare the SDGs by several criteria:

population density
urban-Rural
income criteria
metropolitan regions
regions in the same country
regions with similar results

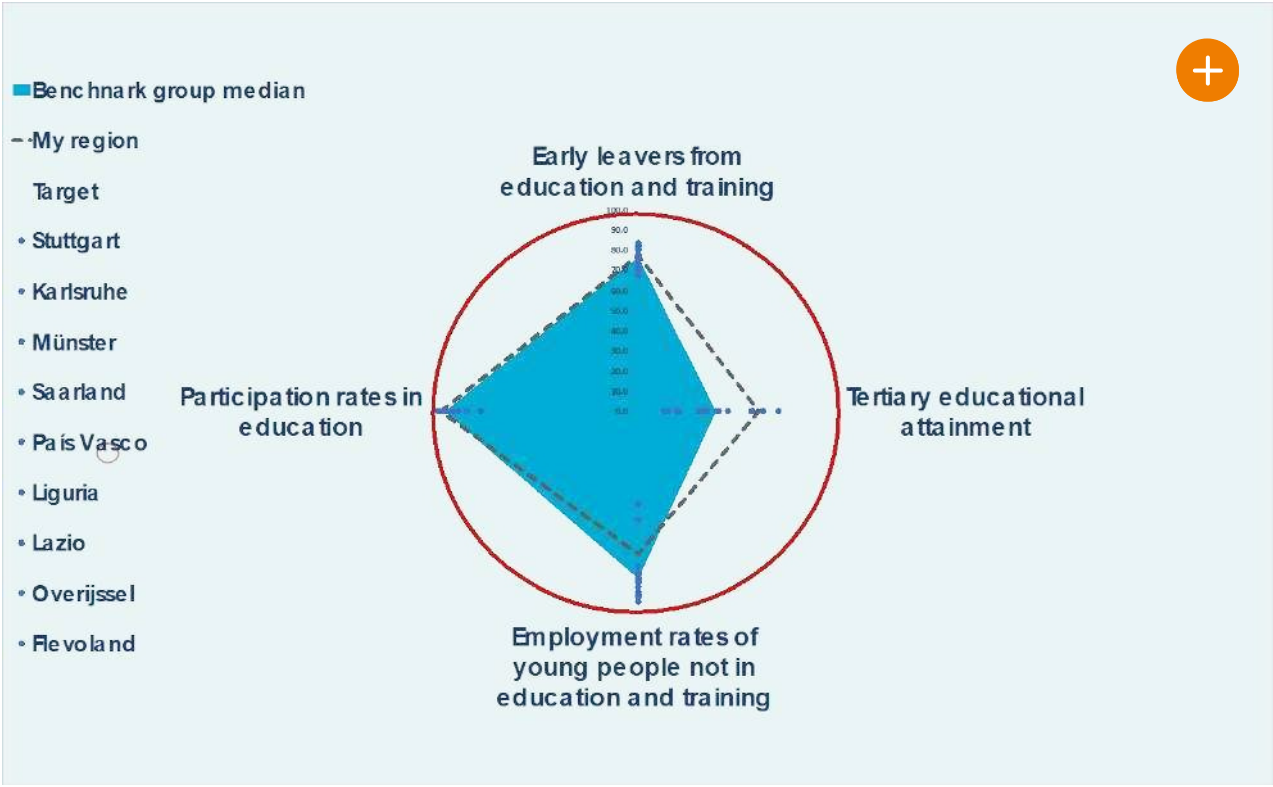
For instance, let's assume that Catalonia wants to diagnose and monitor its performance towards achieving SDG 4 'Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all'.

Catalonia may also choose to benchmark itself against regions with similar population densities (regions between 212 and 410 persons per square kilometre), predominantly urban regions and regions with a similar income (developed regions with GDP per capita of over 90% of the EU average). This combination of criteria for benchmark regions gives 17 regions similar to Catalonia.

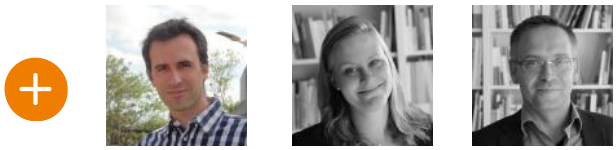
One of the functionalities of the SDG localising tool is that it produces a map that displays regions' performance for each SDG, for separate indicators and as a composite view.

The composite aggregates the performance of the following indicators:
early leavers from education and training by sex;
tertiary educational attainment, age group 25–64 by sex;
employment rates of young people not in education and training;
participation rates of selected age groups in education.
The three leading regions in this example are Gloucestershire, Cheshire and Stockholm, followed by Catalonia. The top performer in Europe for this composite indicator is the Inner London – West region.
The SDG localising tool embeds a progress tracker over a time of two periods, 2011–2013 and 2014–2016. Catalonia appears to have decreased by approximately 20% in terms of 'early leavers from education and training' and increased by approximately 13% for the indicator 'tertiary educational attainment'. It has also increased the 'employment rates of young people' by 4%. 'Participation rates in education' remained stable.
Another functionality provided by the SDG localising tool is a display of regions' distance to achieving the targets associated with each indicator using a radar plot (Figure 2). In addition to visualising the distance to the targets, the radar plot also benchmarks regions in two ways: among the regions and vis-à-vis the median of the benchmark group.

The regional benchmarking exercise shows that Catalonia performs above the group median in terms of 'tertiary educational attainment' and slightly below the median in terms of the 'employment rates of young people'. Catalonia meets the target for 'participation rates in education'.
This is a first version of the SDG localising tool, and there is room for improvements. Future developments could take into account the ongoing research and development of novel indicators relevant to the 17 SDGs and the European regions, and update the indicator selection in a timely manner. They could also account for future methodological work on the setting of targets for each indicator and update targets according to quantified European or international targets.
The SDG localising tool aims to support regional governments in all countries participating in the ESPON 2020 cooperation programme in their work to include the SDGs in local development plans. This is considered an important factor for fully attaining the goals of the 2030 agenda and ensuring that serious action is taken to address the individual development challenges.
More information on the methodology and progress of the project can be found here: https://www.espon.eu/localise-SDG.

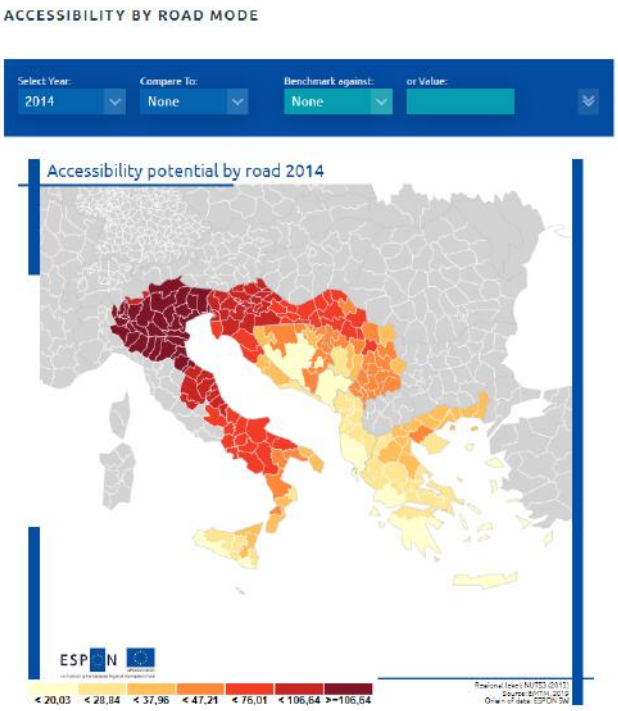


A New ESPON tool for macro-regions in Europe



Authors: Efrain Larrea, Franziska Sielker, Tobias Chilla

The new European and Macro-regional Territorial Monitoring (EMTM) Tool aims to provide support for EU macro-regional strategies through an interactive, simple and highly communicative online tool. It addresses the macro-regional strategies of four macro-regions: the Alpine region (EU strategy for the Alpine region – EUSALP), the Baltic region (EU strategy for the Baltic Sea region – EUSBSR – plus the Vision and Strategies around the Baltic Sea – VASAB), the Danube region (EU strategy for the Danube region – EUSDR) and the Adriatic–Ionian Region (EU strategy for the Adriatic–Ionian region – EUSAIR).



The new tool has the functions listed below.

Continuously monitors development trends and patterns at different geographical levels

Gives support to European, macro-regional, national and regional policymakers and other stakeholders by providing territorial information, data, maps, graphs, analytical features and short reports

Helps policymakers to identify development opportunities and territorial challenges, and to better understand the diversity and position of regions and cities in the heterogeneous European context.

Offers a selection of relevant indicators for Europe to give context in the framework of current European policy themes. These are available in a number of territorial divisions depending on each indicator (from NUTS0 to NUTS3, LAU and FUA)

Creates a set of indicators to assess territorial development trends in the EU's macro-regional strategies

Provides insight on the activities and projects of the various macro-regional strategies

Allows the user to explore the data including through comparisons over time

Guarantees an up-to-date database by linking through web services to main data providers (ESPON Database Portal, Eurostat)

The tool is being built through a participatory process involving stakeholders of the macro-regional strategies, VASAB and the European Commission.

It is structured into five modules: a European module presenting macro-regions in the overall European context, and allowing for comparisons between different macro-regions, and four macro-regional modules.

The tool will be launched in June 2020.

European module

Given that the EMTM tool will be actively used in the 2021–2027 EU funding period, it reflects the general policy themes that will guide EU Cohesion policy in the years to come. These 'policy objectives', according to the Common Provision Regulation ( ), are the following:

a smarter Europe through innovation,

a greener, carbon-free Europe,

a more connected Europe (with strategic transport and digital networks),

a more social Europe (delivering on the European Pillar of Social Rights and supporting high-quality employment and skills);

a Europe closer to its citizens (with the support of locally-led development strategies and sustainable urban development).

For each policy objective, a selection of indicators is available, to measure the progress of regions and territories in reaching targets. This measuring of progress is also considered in the context of the macro-regional strategies, allowing benchmarking.

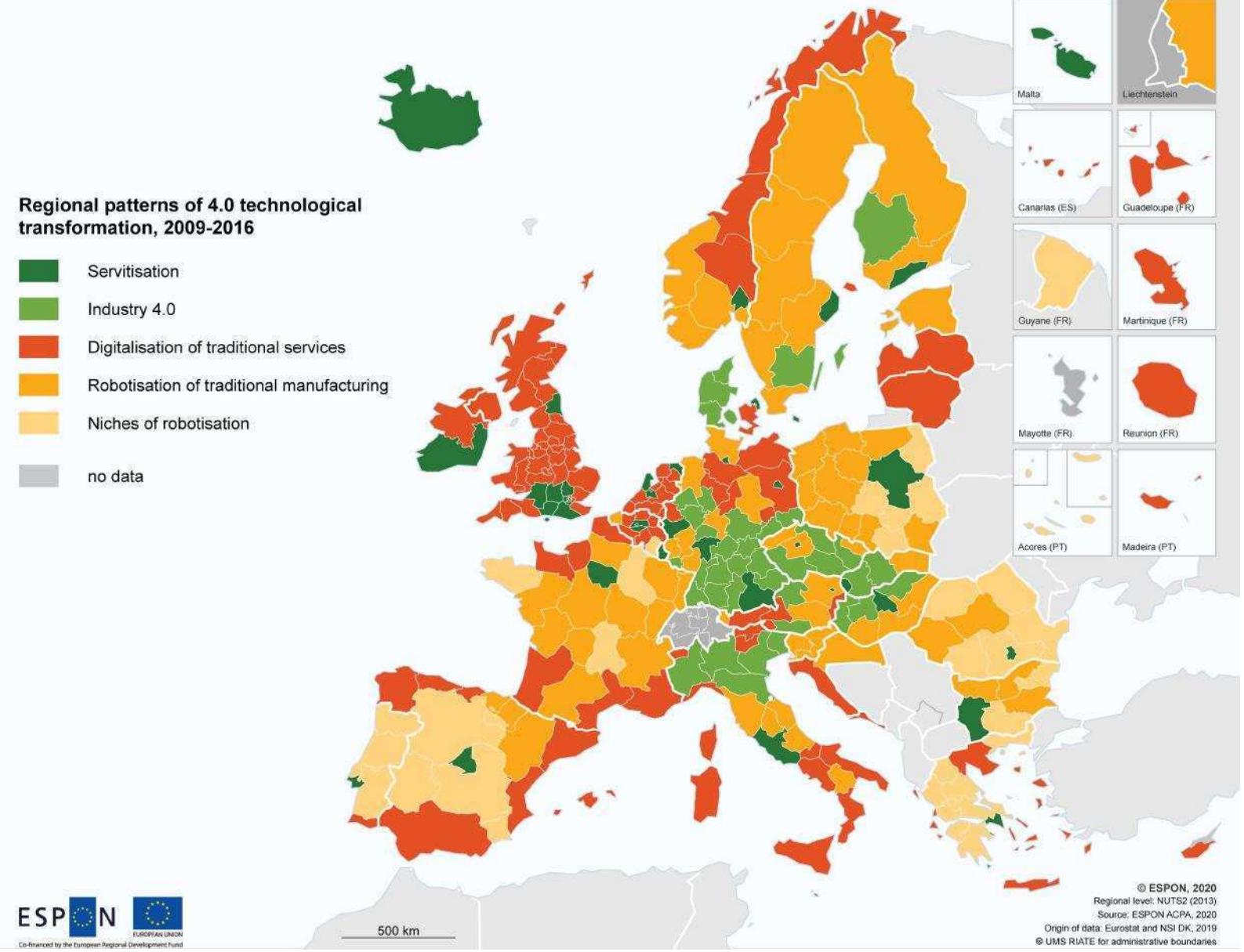
Macro-regional modules

A specific module for each of the macro-regional strategies shows the structure of pillars/priority areas (PAs)/action groups defined in the action plans related to the four macro-regional strategies. For each element of the action plans, the tool offers a description and policy insight. Linked to each pillar/PA/action group, a selection of indicators helps to measure trends in the macro-regions, both over time and in terms of geographical coverage, as well as monitoring progress towards achieving objectives and targets.

At the indicator level, the tool offers a map and a relevant policy description. The map itself is interactive, and provides the options of zooming and panning, as well as changing the years displayed. The information shown on the various maps is retrieved from different data sources. The majority of indicators comes from the ESPON database and Eurostat. These data are retrieved automatically from the original data providers every time they are requested, ensuring that they are always up to date. All maps can be easily downloaded by users in various formats and inserted into documents or used in presentations. It is also possible to download the data linked to a map in an Excel table.

The EMTM tool has to be seen as a starting point for a continuous monitoring activity. The indicators can be updated and adjusted in response to ongoing policy discussions and revisions of action plans. Over the coming months, more information on individual indicators and on the activities and objectives of the four macro-regions will be added to the tool.

In this regard, the tool offers a unique opportunity to rethink the development of macro-regions in the European context, while also providing inputs to support discussions on long-term development perspectives and their relationship to contemporary activities.



Technological transformation: Growth opportunities for lagging regions in Europe

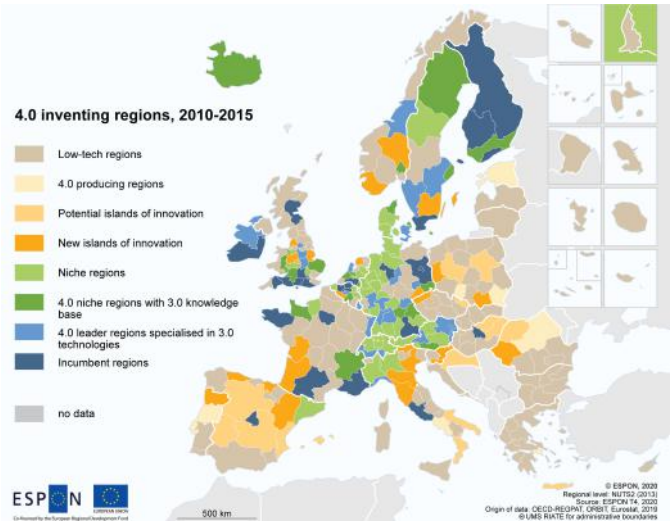
Authors: Roberta Capello and Camilla Lenzi

The 4.0 technological transformation rests on the creative recombination of basic and general technologies with specific domains of application. Basic hardware and software technologies and basic connectivity systems support wide-ranging technological fields. Digital networks, mobile digital devices, cloud computing, artificial intelligence, simulation algorithms for learning machines, the Internet of Things, sensors, big data applications and cybersecurity are only some of them.

The recombinatorial nature of 4.0 technologies leads to a radical reconfiguration of technology markets. It opens up possibilities for obtaining profits from creative inventions to small and new firms, including firms located in laggard regions (Map 1). In countries leading 4.0 technological trends (i.e. Germany, France, the United Kingdom, Sweden, the Netherlands, Finland and Switzerland), almost all regions contribute (and not negligibly) to the production of recombinatorial 4.0 patents with a specific application, and several regions making a significant contribution are located in advanced areas of follower countries (e.g. Italy, Spain and Belgium). However, the phenomenon is not confined to leading regions. Inventing areas also emerge in eastern countries such as Poland, Czech Republic and Hungary, and in the Baltics (notably in Estonia). They are generally regions that host the capital city or second-tier cities in the national context (Map 1).

When one uses the same map to analyse the intensity of traditional information and communication technologies (also know as 3.0 technologies) and 4.0 technologies, multiple and interesting insights emerge (Map 2). Most of the high-performing 4.0 regions exploit an existing edge in 3.0 technologies, showing that the degree to which technological expertise tends to accumulate over time is high. Moreover, more than 40% of regions do not contribute substantially to efforts to invent 4.0 technologies, highlighting the difficulty of

closing a pre-existing technological gap.
However, the evidence shows that regions are able to leapfrog to exploit the 4.0 technological frontier even in the absence of a strong knowledge base on 3.0 technologies. These regions are the new islands of creative innovation and they exist thanks to zero marginal costs and low entry barriers to the market for new technologies. These areas are located both in relatively less innovative regions in leading countries (e.g. France, the United Kingdom, Sweden, the Netherlands and Germany) and in follower countries (e.g. the north-eastern and central regions of Italy, Norte in Portugal, and Pays Basquos, Aragona and Asturias in Spain). Even more importantly, they can be found in eastern countries and not only in capital regions (e.g. Poland, Czech Republic, Slovenia and Romania). Interestingly enough, the results also demonstrate that these islands of innovation are able to achieve productivity growth advantages thanks to their creative capacity.



Industry 4.0 and servitisation: growth opportunities

Once 4.0 technologies are produced and applied, significant transformations occur in the economy and society. One of the most commonly cited transformations is the advent of Industry 4.0, or the smart factory, based on cyber-physical systems (CPSs). CPSs comprise smart machines, storage systems and production facilities, able to exchange information, initiate actions and mutually control each other. Their interconnection via the internet, sometimes referred to as “the industrial internet of things”, generates technological leaps in engineering, manufacturing, material flow and supply chain management. A second well-known transformation is servitisation: this refers to the supply of services or products offered on virtual markets via digital platforms (e.g. Uber, Amazon, BlaBlaCar and eBay) that, managing billions of data, allow people to share their spare resources, offer new services and develop new businesses.
Servitisation is a typically urban phenomenon. It develops particularly in large metropolitan regions. Interestingly enough, this phenomenon is also present in the capital cities of eastern countries. Industry 4.0, by contrast, takes place in only a few regions in Europe, located mainly in Germany and, less intuitively, in northern Italy.

Some peripheral regions in northern countries – for example the United Kingdom with the exception of London and the surrounding area, certain Baltic regions, and regions in Norway, northern Germany and parts of the Netherlands – are going through digitalisation of services. E-commerce exists in these regions, but its exploitation is still limited and there are opportunities for further expansion.
Robotisation of traditional manufacturing is diffused in most regions in Europe; it is a typical lagging region phenomenon. Regions in France, Poland, central Italy, Spain, Finland and Sweden but also Hungary, Poland, Romania, Estonia and Bulgaria have either relatively high adoption of robots in traditional manufacturing sectors or have robotisation in certain niche sectors or activities. Generally, these regions show a very low adoption of 4.0 technologies and are specialised in tiny industrial sectors; they also have a very high risk of job automation.

> *evidence shows that regions are able to leapfrog to exploit the 4.0 technological frontier even in the absence of a strong knowledge base on 3.0 technologies. These regions are the new islands of creative innovation*

The adoption of 4.0 technologies generates growth opportunities. Through higher competitiveness across a large number of manufacturing industries, Industry 4.0 regions have a strong tendency to show a steady and significant increase in gross domestic product (GDP). The same applies to regions with advanced digital service markets. Through growth in both high-skilled jobs (e.g. for developers of apps for large digital intermediaries) and low-skilled jobs (e.g. for Uber drivers and home delivery riders) provided by digital markets, servitisation regions also have a strong tendency to show GDP growth.

Technological transformation and the COVID-19 pandemic

Advanced technologies have played a strategic role in limiting the spread of the novel coronavirus. Robots are used to disinfect hospitals, to deliver medicines in infected environments, to nurse infected people, to control the epidemic’s diffusion (through apps) and to collect data for epidemiological studies.
They also play a crucial role in limiting the negative effects of the lockdown and keeping society and the economy functioning. For example, distance learning, remote working and online forms of social entertainment have become vital to guarantee a minimum degree of economic activity and social life, and smart factories guarantee production (albeit to a limited extent) thanks to machine-to-machine communication and remote human control.

Success story: Quick Check Territorial Impact Assessment

Author: Bernd Schuh

Identifying whether or not EU policies, or policies in general, have territorially differentiated effects, influencing some regions more than others, is a crucial task, especially in light of the EU's goals on territorial cohesion. Territorial impact assessment (TIA) is one of the approaches that can be used to identify such differentiation in effects and, in addition, it can help guide proposals for adjustments to a policy itself or some of its elements to reduce territorially imbalanced effects.

ESPON TIA Quick Check, and its accompanying web application, is a decision-making support tool developed to serve this purpose. The tool is developed to support a moderator of a TIA workshop, feeding and guiding expert discussions. The method is based on considering different levels of territorial sensitivity to a certain policy process, and by combining expert judgement with a set of statistical data it projects potential territorial impacts. The workshop simulates a TIA process and assesses territorial impacts in a fast and elegant way. This unique ESPON service has gained traction among policy-makers, mainly in the context of EU legislation. Among the EU policies for which TIA workshops have been moderated using the TIA tool are the remotely piloted aircraft system and the bioeconomy. It is now a recommended method, listed in the Better Regulation Guideline Toolbox 33 and has been used in several EU legislative proposal impact assessment procedures.

It is interesting to note however that this method can also be applied to other kinds of national and subnational policy processes.

The following two cases exemplify how the TIA tool can be applied in other circumstances.

Case 1: using the TIA tool to assess the impacts of a European Territorial Cooperation programme post-2020 programme

European Territorial Cooperation (ETC) programmes have already started designing and setting up plans for the post-2020 programming period. For the upcoming period, ETC programmes will be requested to use the concept of 'functional areas' to demarcate programming areas. Performing an ex-ante TIA to visualise potential common effects of policy objectives across borders may be a useful and effective way of responding to this request. The ESPON TIA tool offers for this purpose a specific cross-border portal that takes into account border regions only and offers cross-border-specific indicators.

Case 2:using the tool to determine whether or not territorial impact assessment would be useful for a certain policy proposal

Decision-makers often have difficulties predicting and assessing the territorial effects of a policy proposal in its preparatory phase. As a consequence, it is unclear to them whether or not a TIA is actually necessary or useful. For this reason, the TIA tool offers the function of a 'TIA necessity check' which provides interactive decision support, enabling users to check whether or not a TIA is actually needed.

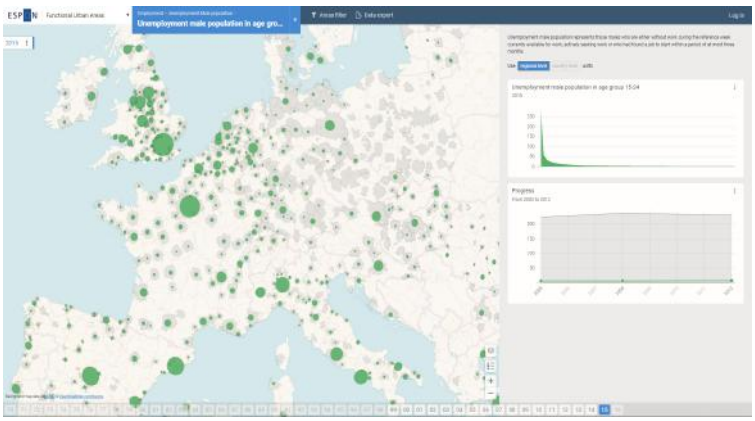
ESPON FUORE: A tool beyond the classical administrative boundaries

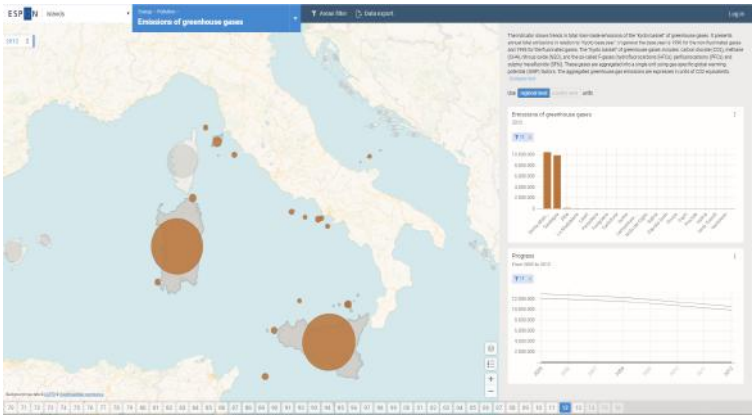
Author: Roger Milego

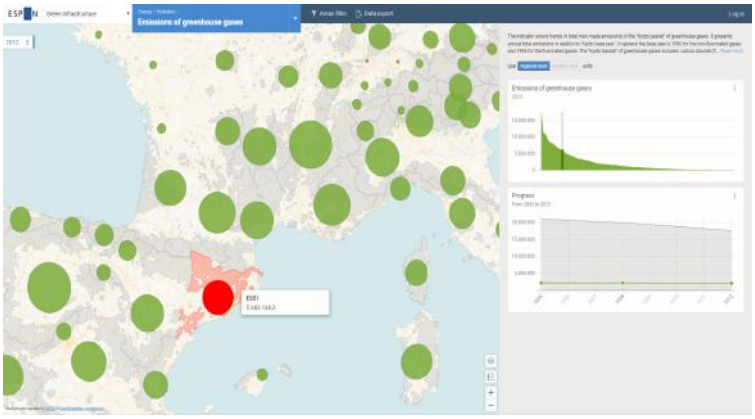
Development and sustainability policies are looking progressively into functional areas, understood as areas around urban centres where systemic relationships form, or categories of areas delimited by geographical specificities or economic activities.
If your interest goes beyond the classical administrative boundaries, the ESPON FUORE web tool might be the tool for you!
You can find out, for example:
How much population has changed in the sparsely populated areas of your country;
What the net migration is in the different European mountains;
How youth unemployment has changed in the past years in the different functional urban areas of your region;
Which border areas in Europe are the most economically strong.

The ESPON FUORE project provides a web tool with hundreds of estimated demographic and socio-economic time series indicators for several types of functional areas (functional urban areas, coasts, mountains, islands, sparsely populated areas, border areas and green infrastructure potential areas).
Any policy-maker or stakeholder can make use of the user-friendly web tool to quickly analyse and benchmark any of the functional regions by means of interactive maps and charts.
If official statistics are not available for a specific functional region, the FUORE tool can provide estimations.
Do you have a NUTS-based indicator and would you like to redistribute it by a particular functional area The FUORE tool can help you do so! An additional specific tool for advanced users is provided to guide the ad hoc redistribution of a NUTS2 or NUTS3 indicator by a selected functional area. The outcome can be previewed before sending to the FUORE web tool.

The ESPON FUORE web tool is in line with several initiatives promoting and reporting by functional areas, such as the OECD's Global Functional Territories tool.







Territorial Quality of Life: ESPON measurement

Author: Carlo Sessa, Isinnova

The ESPON Quality of Life Measurements and Methodology project is currently developing a Conceptual Map of Territorial Quality of Life (TQoL) measurement.

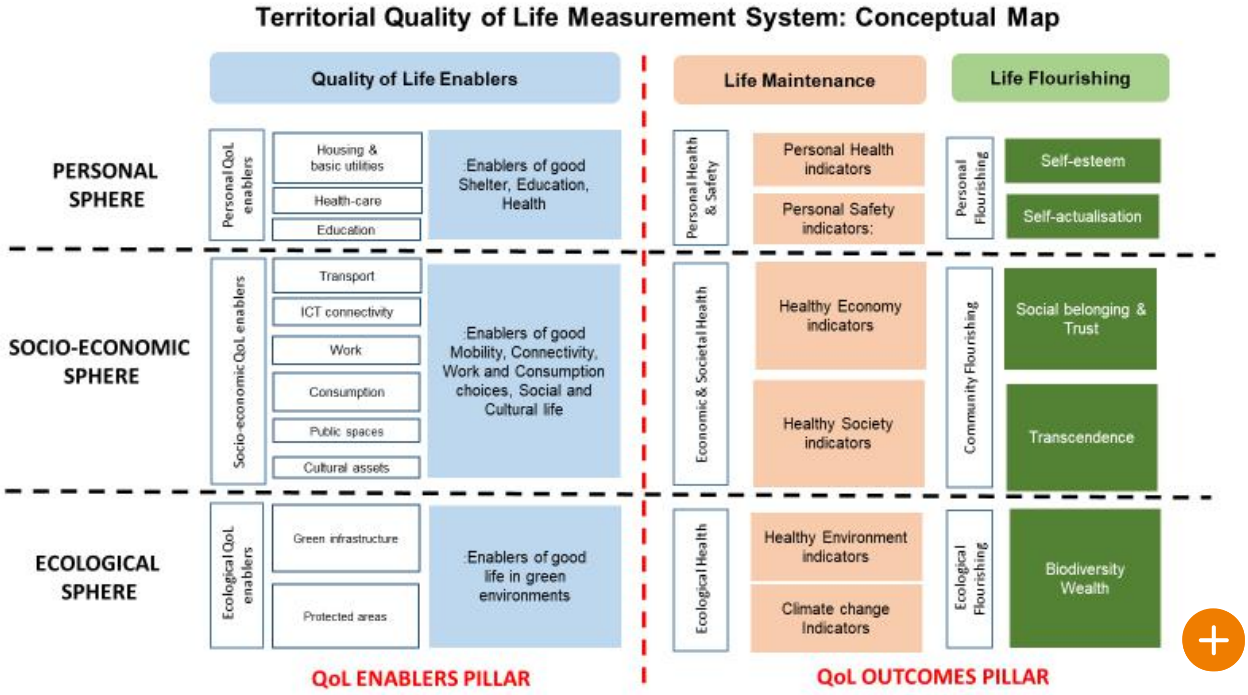
This includes 9 quality of life domains and 22 sub-domains, framed in two pillars – quality of life enablers and quality of life outcomes – and covering the personal, socio-economic and ecological spheres.

In a nutshell, Territorial Quality of Life (TQoL) is measured with a systemic and multi-faceted approach including all the territorial enablers and objective and subjective dimensions necessary for life homeostasis – I.e. people living and flourishing - in a place. The TQoL measurement system is represented in the figure below.

Territorial quality of life measurement – added value for policy-making

Measuring TQoL is necessary to complement the measuring of the economic progress and competitiveness of territories. In particular, measuring quality of life enablers and outcomes, considering life maintenance and life flourishing conditions and trends is increasingly necessary in light of the COVID-19 crisis.

Policy-makers should consider measuring several of the factors proposed in the TQoL framework, in light of the COVID-19 pandemic. The potential changes to our way of life are manifold.



Based on the TQoL conceptual map, the project is now investigating the availability and suitability of statistical indicators at different territories for measuring the different aspects of quality of life These indicators are not based on envisaging the active engagement of citizens in co-designing them or the implementation of new localised data collection campaigns, to provide better granularity of territorial information. In this respect, new technologies (big data) and participatory 'citizens science' processes could better integrate the needs and aspirations of the citizens in the QoL measurement and contribute to adopting in practice a 'citizens centric' approach.

Just to name a few, the lockdowns caused by the COVID crisis – the largest global experiment in teleworking and home-schooling – could change our routines and lives more permanently. Working from home and flexible working arrangements could be adopted in a more general way in a "post-COVID" world, as well as distant schooling options (The Guardian, 2020). Where the digital transition is possible, this could also mark a watershed moment for workplace inclusivity, in particular for people with disabilities or mobility problems. Working from home could have some direct benefits, ranging from cost savings for employers to a collective reduction in millions of miles of unnecessary commutes, with indirect

impacts of reducing traffic accidents, pollution and fuel consumption, and increasing mental/social health. But there are of course also implications in relation to who can work from home and who cannot, creating potentially new inequalities and divides.

Moreover, how will the pandemic fundamentally change the way we come together and share space How will COVID-19 fundamentally shift the way our cities are designed to be pandemic resilient and, more broadly, how we practice urban planning?

Finally, the crisis offers us the opportunity to reset our relationship with nature (The Guardian, 2020b). This could be a pivotal moment to reflect on and reimagine what conservation and wildlife protection could look like and allow us to respectfully rebuild the broken boundaries with nature that have resulted in the situation we are in today.

All the above policy matters would greatly benefit from a new system of TQoL measurement, as the ESPON QoL study is currently designing and testing.

Note:

The TQoL framework does not include GDP or local productivity indicators, and the "healthy economy" indicators refer only to aspects of distribution, equity, economic cohesion in the territory. Local productivity indicators are obviously important for local/regional development strategies, but the TQoL "healthy economy" indicators focus on the spill-over of economic progress in terms of benefits for the citizens. In this respect, the TQoL indicators are complementary to GDP measurement – an orthogonal, not a collinear factor.

About the Project

If we could know, what QoL means and how it is developing over time on European, national, regional and local level, taking into account Europe's territorial diversity, then we could better look into the reasons for shortcomings and possible counteractions. Such we could better coordinate actions and investments on different geographical levels. European policies, like cohesion policy, could have a stronger reference to the quality of life of European citizens.
Sabine Stoelb, ESPON QoL PST member– Luxembourg

QoL is a very complex and multidimensional concept and should be included in all policies taking into account territorial diversity. In concrete terms, this project will hopefully contribute to improve Slovenia's QoL monitoring system at regional level, being developing right now, by preparing regional development strategies for the next programming period.
Janja Pecar, ESPON QoL PST member – Slovenia

Expectation change over times, and often suddenly as we have seen in the first months of this year. At the same time, different things matter in different territories. What a person considers QoL to be, varies in the same way. Because of this variability, measuring QoL needs to include subjective and objective dimensions and to allow for a level of flexibility or weighting in all dimensions, making this a very complex subject. ESPON aims to provide useful evidence, knowledge transfer and policy learning to public authorities and other policy actors at all levels. The results of this project will hopefully be a considerable improvement for policymakers as it will contribute to a more effective and flexible regional development.
Anna Lea Gestsdóttir, ESPON QoL PST member – Iceland

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The Guardian. 2020b. '"Tip of the iceberg": is our destruction of nature responsible for COVID-19?'

ESPON TOURISM – a tool for the tourism of the future

Author: Bernd Schuh

Tourism is one of the largest economic sectors in Europe, and it has a very strong regional component – i.e. tourism is overwhelmingly the largest contributor to the gross domestic product of many single regions.

On the one hand, this ensures the 'survival' of regions that could not sustain their populations and their livelihoods through other economic activities. On the other hand, a high inflow of tourists into a region can lead to numerous problems, mainly related to social and environmental aspects. In light of the COVID-19 pandemic the world is facing, it is safe to say that tourism will change in the future. We will see for some time the reorientation of tourism as follows:

Relocalisation of tourism flows: tourist destinations geographically nearer to a tourist's origin will gain importance and attractiveness. For Europe, this means that intra-EU tourism will gain vis-à-vis extra-EU tourism – in terms of both destinations and the origins of tourists.

Sustainable tourism: more sustainable forms of tourism will increase in terms of market share as mass tourism and overtourism become less important.

This implies changes to both the modes of transport used to reach destinations and the type of touristic activities carried out at destinations.

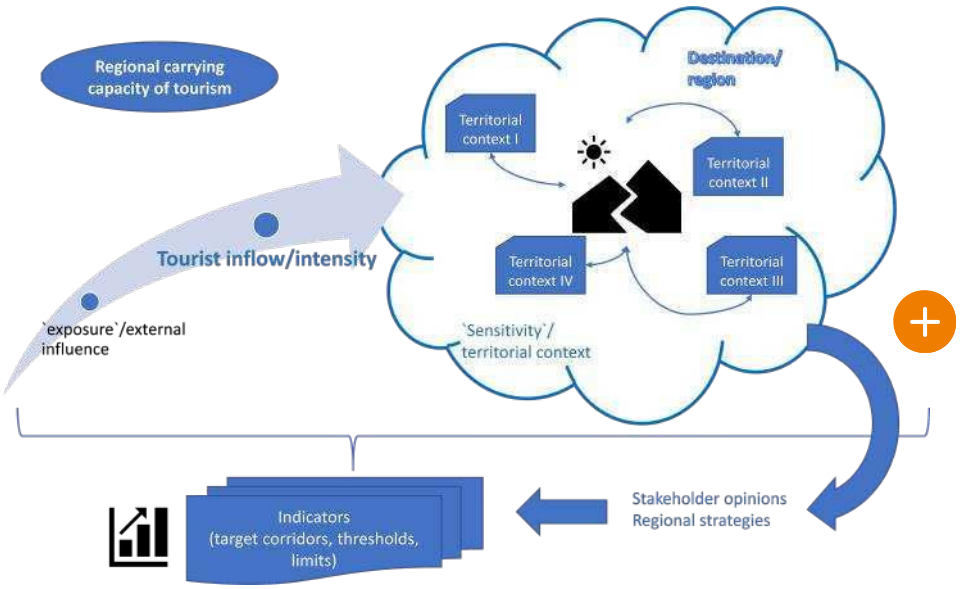
The ESPON TOURISM (Carrying Capacity Methodology for Tourism) targeted analysis – although having started before COVID-19 events – aims to address these issues to support tourist destinations measure their carrying capacities. The methodology being developed is based on a delicate balance between comprehensiveness and flexibility and can be applied to any type of destination.

The project thus consists of three interlinked phases:

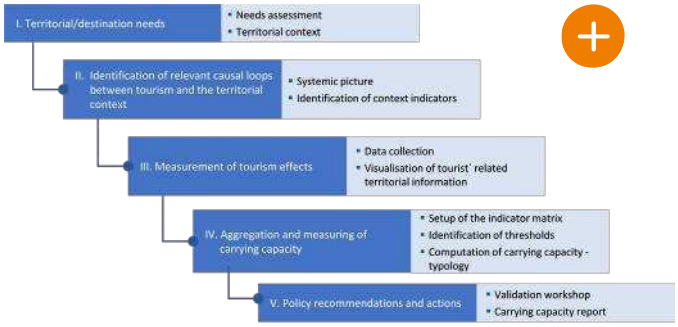
the development of a methodology to assess the carrying capacity of any destination, including guidance material for the subsequent case studies;

the application of the methodology in the course of four case studies in three Slovenian destinations and one Slovenia–Italy cross-border destination;

the revision and improvement of the methodology based on the feedback gathered in the case studies.



The ESPON TOURISM targeted analysis project has been designed to meet stakeholder expectations (in this case Slovenian, Italian and Croatian stakeholders), but it will also produce a product that may be applied universally, all over Europe and the world. Its main output will be a comprehensive handbook guiding readers through the methodological steps of an assessment of the carrying capacity of any tourism destination accompanied by supporting visualisation tools. It will also include territorial evidence on the impact of tourism in the case study regions along with recommendations on managing tourism flows to ensure the sustainable development of a region.



The methodology will address the issue of carrying capacities for tourism as a multidimensional problem depicting an external influence on a territory, in particular, tourism intensity and concentration in territorial terms and in terms of time; tourism flows into and within the destination; and the consequences in terms of user conflicts, opportunity costs connected to tourism – depending on the territorial conditions of the destination – and economic, social and environmental factors.

State of play

Currently, three Slovenian (Bled, Divaca and Brežice) and one Slovenian–Italian cross-border case study (Nova Gorica–Goricia) are being conducted and first findings will be published this summer. The carrying capacity methodology will then be scrutinised based on the results of these case studies and refined. The project will be finalised by spring 2021.

> *We expect from ESPON tourism a methodology that will be easy to use, adaptable to different destinations*

Carrying capacity is an important part of the sustainable development of tourism. As an Association of many different municipalities on different development levels when we speak about tourism, we see different approaches to analyse carrying capacities for their destinations. That means, different kind of indicators, different approaches to data capture and different presentations of the results.
We expect from the ESPON tourism a methodology that will be easy to use, adaptable to different destinations, with not only recommendations for data capture, but already 'served' data from reliable open data portals, which are always up to date. We also expect the project to provide recommendations on the kind of policies municipalities should implement to balance the pressures and to use opportunities in tourism. This will also have a positive impact on local public budgets since so far municipalities have to engage and pay external experts for this kind of studies.
Saša Kek, stakeholder

#Interreg30

Net impact of Interreg: statistical inference

Author: Vassilen Iotzov

As part of its transnational outreach efforts, ESPON has been working with the Austrian Institute for Regional Studies, ÖIR, on assessing counterfactual methods for their applicability to Interreg. The results have been published in a transnational brief for Interreg programming authorities, outlining popular causal inference methods typically applied to policy impact assessments. The paper offers conclusions about their applicability to Interreg, taking into account basic statistical assumptions.

Such conclusions are not only relevant for designing the performance framework. Interreg programmes are often designed to support projects that internalise area-specific negative externalities occurring across jurisdictions. In such cases, eligible applicants (e.g. local administrations) are selected because of negative externality, leading to the problem of reversed causality, i.e. the locality causing the treatment. Counterfactual comparisons would then always tend to be downwardly biased. Is this a bad thing? Not necessarily: it may be more difficult to statistically infer improvements as a result of the treatment (i.e. the Interreg intervention), but this does not mean that the treatment has not been beneficial.

In considering externalities, we enter the domain of the famous Coase theorem: by lowering the transaction cost for border stakeholders, cross-border cooperation projects are the most efficient way of internalising negative border externalities. For example, nutrient outflows from agriculture in region A and fisheries in region B can be reconciled at a Pareto-efficient level and at the lowest possible cost. This can certainly be measured, and statistically significant results can be obtained, provided that there are enough treated and non-treated farmers and fishers. The problem is that border area stakeholders may identify a number of externality cases, which would all require a different indicator, and these are most likely not compatible with deriving a programme result indicator. Moreover, programming authorities do not possess the ex-ante knowledge of all possible negative externalities, which is typically the role of the supported actions.

This problem would typically force programmes to apply a teleological programme design, i.e. Interreg interventions that are a function of their goal (e.g. increase the prosperity of the region – put as a proxy for all possible generic result indicators). Although an admirable endeavour, this pathway will inevitably cross other funding streams pursuing similar objectives. There is also the fact that many Interreg beneficiaries are also beneficiaries of other funding schemes, and so intangible benefits such as knowledge are moving from project to project regardless of the funding scheme. This makes it impossible to disentangle the effects of participation in treatments (various publicly funded projects), a problem known statistically as multicollinearity. This is where quasi-experimental design counterfactuals come into play. Here the problems are related not to ceteris paribus reliability but to statistical significance. However, even if statistically significant estimates can be obtained, the economic significance is likely to be negligible given the overlaps of Interreg with other schemes that are often more influential in pecuniary terms.

This would lead to the conclusion that the question behind the programme mission ('what do we want to change?') cannot be answered without taking into account the question of impact ('is what we changed of economic significance?') and the question of evidence for the net impact ('can we make a statistically significant inference that what we have changed is a result of our Interreg intervention?'). So, discussions about territoriality and functional areas, i.e. the identification of territorial needs that cannot adequately be addressed by any other public policy (i.e. Interreg niches), would be better informed by an understanding of statistical and economic significance. Such an understanding can draw attention to measurable benefits for end-users rather than beneficiaries; to place-specific externalities rather than place-invariant challenges.

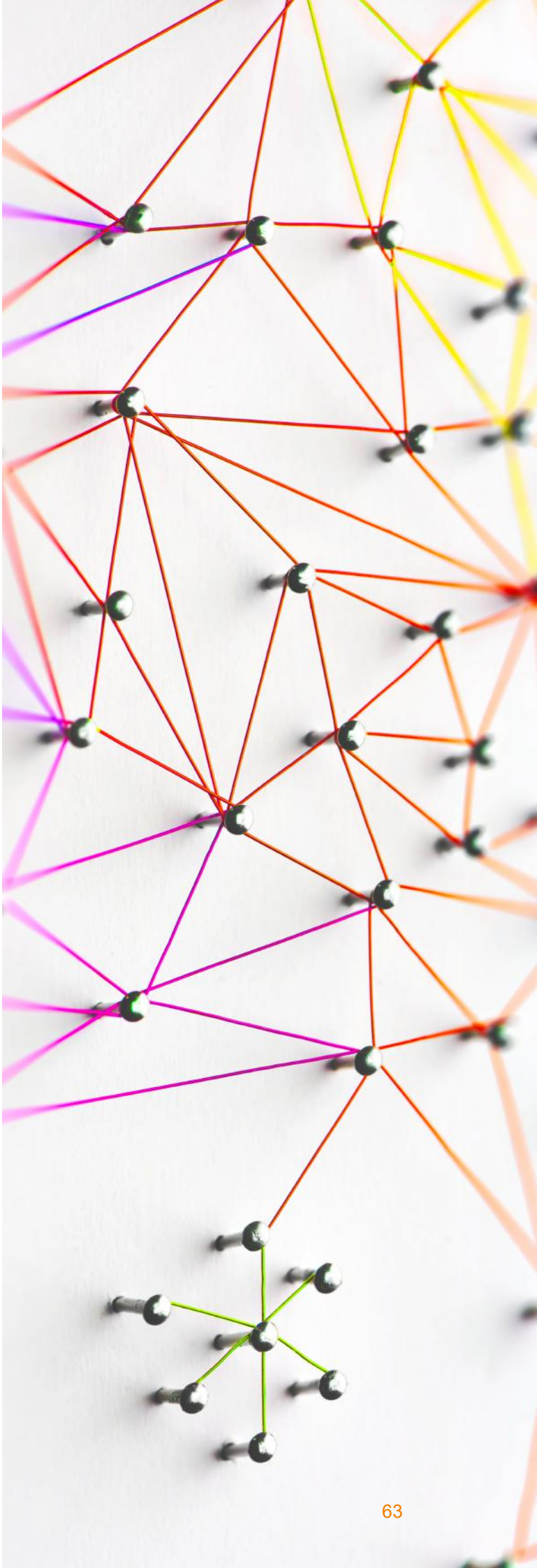
The transnational brief explains the counterfactual methods most frequently applied in policy impact assessments: difference in differences (DiD), propensity score matching (PSM) and regression discontinuity design (RDD), among others.

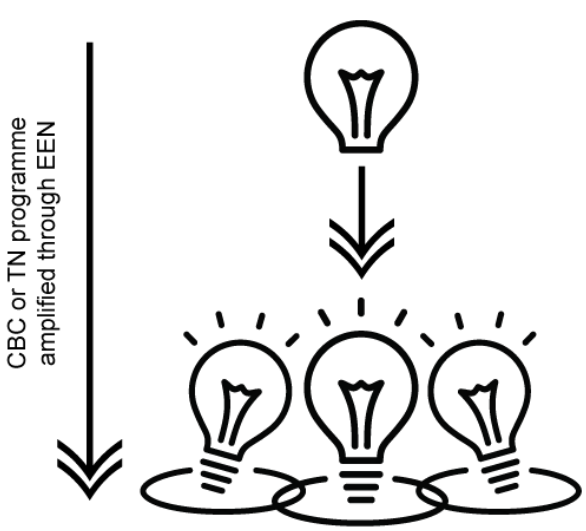
The DiD method measures the outcome of a treatment (i.e. participation in an Interreg project), comparing a treatment group (beneficiary) with a control group (non-beneficiary) before and after treatment. Deducting the trend over time and the difference before and after treatment yields an estimate of the net impact.

Statistical matching seeks to attain an accurate estimate of the Average Treatment Effect (ATE). This is done by deducting the mean of a certain indicator of non-treated units (i.e. non-beneficiaries) from the mean of the treated units (i.e. beneficiaries). The result, however, contains the ATE and a selection bias, i.e. the treated units have not been randomly selected but certain observable traits suggest that they actually necessitate the treatment (i.e. reversed causality). Propensity score is the probability of participation in the treatment estimated based on multiple observed traits that treated and nontreated units have in common. Treated units can then be accurately matched with counterfactuals that exhibit similar probability levels (strata). ATE can be obtained for every strata, and the overall ATE is then obtained by the weighted average of the ATE obtained within individual strata.

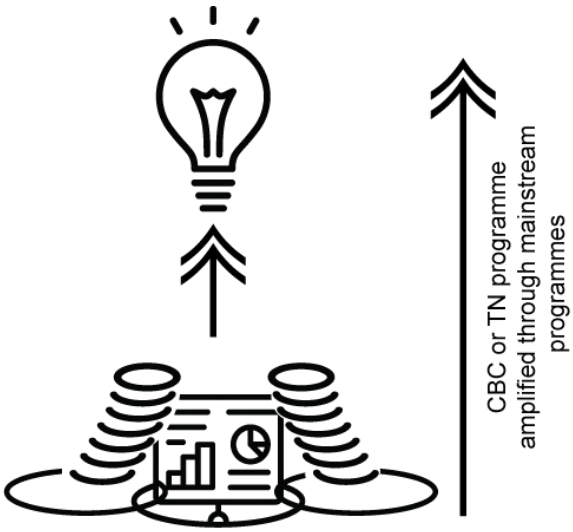
The RDD method solves the so-called endogeneity problem, i.e. beneficiaries may be awarded on the basis of selection criteria that only well-performing organisations can meet. The result of an endogeneity would be an upward bias in the impact estimates, as well-performing organisations might be better endowed to deal with a problem with or without Interreg treatment. Regression discontinuity sets a threshold for eligibility or selection, and the units (e.g. public organisations, associations, individuals or, where applicable, firms) just above and below the threshold are expected to have similar observable and unobservable traits. Thus, the units just above the threshold can serve as the treatment group and those just below the threshold as the control group. Comparing the mean of the outcome (result indicator) of the treated and non-treated units would yield the net impact of the treatment.

The authors' verdicts on the applicability of the above methods to Interreg, as well as other methods, are available on the ESPON website





Spatially adjusted EU open innovation expected to lead to high marginal social returns at low marginal cost



Strategic investments in the knowledge stock relevant for the functional area expected to reduce deadweight in entrepreneurial development

Entrepreneurial development niches for Interreg

Author: Vassilen Iotzov

This article introduces potential niches for Interreg programmes in relation to entrepreneurial development in cross-border and transnational functional areas (FAs).

The ideas presented here have been inspired by an exchange between ESPON, Interreg stakeholders and representatives of the Directorates-General (DGs) for Research and Innovation and for Internal Market, Industry, Entrepreneurship and SMEs within the framework of the ESPON transnational outreach project.

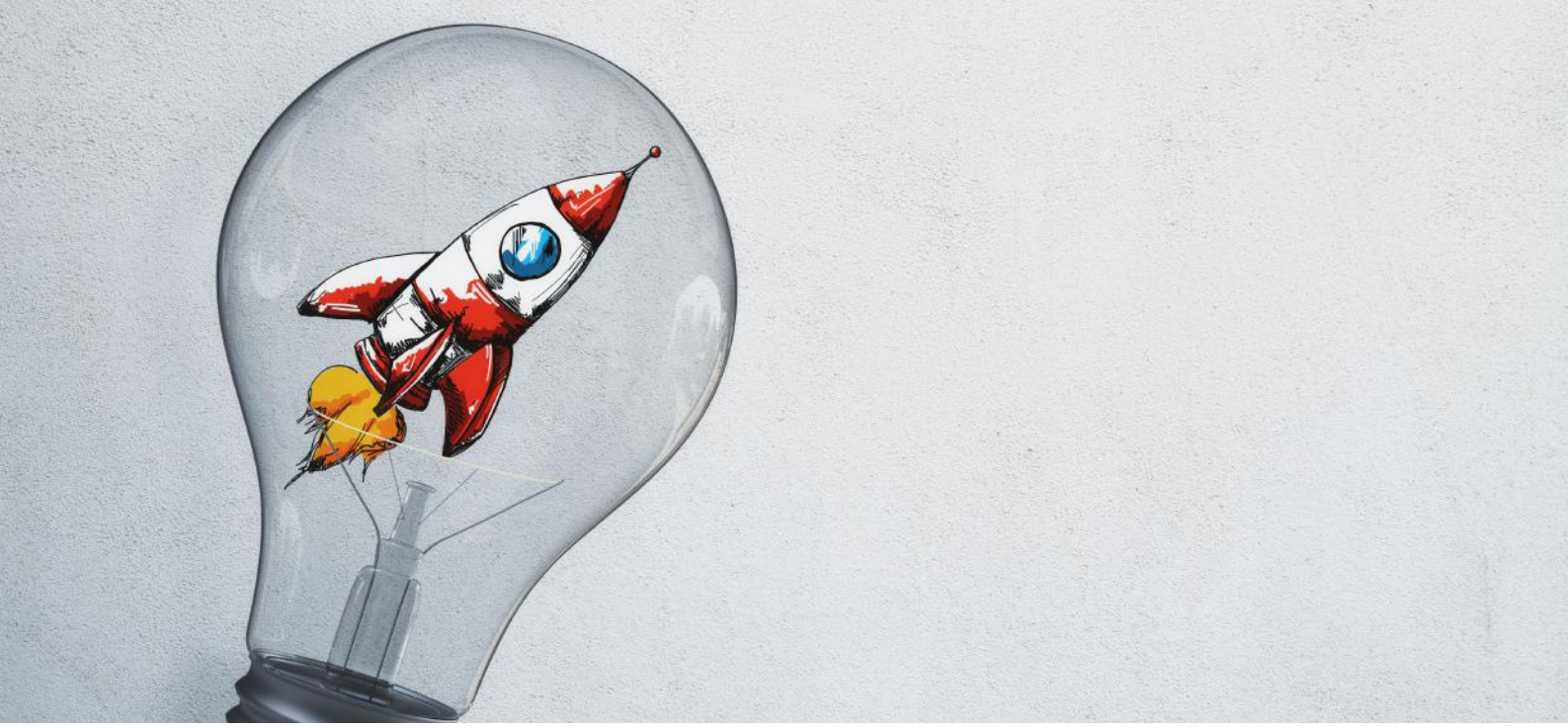
The synergies observed between Interreg, the framework programme for research and innovation (Horizon 2020) and the Enterprise Europe Network (EEN) can be clustered into two main domains (see graph above) Both domains are considered niches for Interreg programmes, as they delineate areas of intervention that account for the place-variant needs of a cross-border or transnational FA (spatial heterogeneity) and control for possible deadweight risks, i.e. overlaps with activities carried out in the context of place-invariant innovation and entrepreneurial support schemes.

The role of both niche domains for entrepreneurship in cross-border and transnational functional areas can be empirically tested. The results can be helpful for Interreg programme implementation authorities beyond the multiannual strategies and cooperation programmes. The design of specific calls for proposals can benefit from empirical findings and pave the way for synergetic interventions that take into account developments and activities planned or carried out within Horizon Europe and/or the EEN. Such value chains are expected to increase marginal social impact at a low marginal cost.

This article is not the result of an empirical analysis but presents the conceptual framework only. The empirical model that can be tested in certain cross-border or transnational areas, or across these FAs, builds largely on the model applied by the knowledge spillover theory of entrepreneurship (Acs et al., 2009). Using the same set of variables, the Interreg niche model includes the notion of knowledge spillovers through knowledge imports (e.g. appropriation of open research results, open data or other knowledge residuals from abroad), as well as a recognition of high-impact industrial sectors that are considered particularly competitive and fertile for the economy of the cross-border or transnational FA. The latter can be the result of cross-border or transnational regional smart specialisation and entrepreneurial discovery processes (Foray, 2015).

$$FARENT = KSTOCK\alpha + KIMPORT\beta + FA*KSTOCK\gamma + EEN*KIMPORT\delta + BARR\zeta + INC\eta + CONTROL\lambda + u$$

Entrepreneurship in a cross-border or transnational FA (FARENT) is a function of the knowledge stock (KSTOCK = R&D investments and research capital investments), knowledge import (KIMPORT), entrepreneurial barriers (BARR = corporate tax, individual tax, public expenditure in relation to GDP as a proxy of substitution effects), level of knowledge appropriation from incumbent firms (INC = patents, gap between actual and potential GDP) and other observable influences (CONTROL = share of population in the age segment 30-44; share of population living in urbanised areas). The model has also been designed to investigate the marginal effects of knowledge imports if they are associated with the



EEN as well as the marginal effects of the knowledge stock accumulation if this occurs in the FA's priority sectors.
Individual observations for each of the niche domains already documented by the European Commission and the Interreg CENTRAL EUROPE programme are presented below.

Strategic investments in the knowledge stock of a cross-border area

The International Iberian Nanotechnology Laboratory (INL) was co-financed by (among others) the Interreg Spain–Portugal programme. Nanotechnology was identified as an investment priority during the Portuguese–Spanish summit in Évora, Portugal, because of its applications in medicine and healthcare, food and environmental monitoring, information and communications technology (ICT) and renewable energy. The current activities of the INL are distributed across these domains and match the smart specialisation priorities (RIS3) of the Portuguese and Spanish border regions.
In 2017, the INL kicked off the Interreg Spain–Portugal project NanoGateway with the goal of establishing a cross-border smart specialisation strategy in nanotechnology, also known as nanoRIS3. NanoGateway sought to cluster the cross-border innovation system around the common denominator of nanotechnology and assimilate nanoscience excellence into the cross-border entrepreneurial network, thus establishing a common scientific, technological and entrepreneurial functional space.
The INL currently has a portfolio of nearly 170 research projects including projects worth nearly €14 million funded under Horizon 2020.
The first entrepreneurial spin-off as a result of scientific research conducted at the INL was RUBYnanomed. By using applied nanotechnology, a team of INL researchers developed a single-use device able to capture circulating tumour cells (CTCs) in the bloodstream using as little as 7.5 ml of blood from a patient.
CTCs are biological particles that cause secondary tumours by flowing freely in the bloodstream and attaching to other organs.
RUBYnanomed seeks to help oncologists define the best treatment options for their patients by continuously monitoring their condition without having to wait until tumours are detectable in scans or x-rays.

Spatially adjusted EU open innovation

In May 2019, the Interreg CENTRAL EUROPE Programme launched an experimental call designed to link Interreg outputs and results with those of directly managed EU programmes, with a focus on the framework programme for research and innovation, Horizon 2020, and its predecessors. In December 2019, Interreg CE selected nine projects for funding. An example of a project involving spatially adjusted EU open innovation is the CERUSI project. It seeks to support social entrepreneurs in rural regions by means of the Rural Social Innovation Lab Caravan. It builds on the Regional Circular Living Lab concept developed through the Horizon 2020 project LIVERUR, which combines principles of the circular economy and social inclusion with business development. It was co-developed and tested in 15 pilot regions, feeding into a conceptual framework, whose territorial adaptation to rural central Europe will be carried out as part of the CERUSI project. Sectors covered include agriculture, food and beverages, crafts and rural tourism.
The full paper on entrepreneurial development niches for Interreg is available on the ESPON website.

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Author: Irma Astrauskaite

COVID-19 solutions: what Interreg Europe has to offer

The interregional cooperation programme Interreg Europe has a community of 17,000 members, policymakers and other regional development practitioners. The programme has mobilised them to share their know-how and solutions for recovery from the global COVID-19 pandemic and its consequences. Join the Interreg Europe initiatives related to the research and innovation, SME competitiveness, low-carbon economy, or the environment and resource efficiency, and benefit from the knowledge sharing too.

Discover good practices

The Interreg Europe good practice database is full of solutions from all European regions. The practices were validated by a team of experts. You can easily find tried and tested solutions relevant to the present crisis, using the keyword COVID-19 in the search. You can also share your solution – just submit your good practice.

Benefit from #policylearning services

The Policy Learning Platform's expert team continues to provide support and advice, giving priority to requests addressing the COVID-19 issues. You can submit your ad-hoc question via the helpdesk or even request a peer review. Series of thematic webinars and online discussions are scheduled in the upcoming months which will address the challenges linked to the pandemic.

Exchange online at #europecooperates

Let's meet virtually at the interregional cooperation forum 'Europe, let's cooperate!' on 9 June 2020. It is a unique opportunity to get inspiring ideas and solutions for tackling COVID-19 issues, as well as to exchange with your peers. If you have a solution to share, you can pass it on for inspiration. If you have a challenge your region is facing, ask others for help; Or do both already now at the Interreg Europe event page.

For more information visit Interreg Europe page dedicated to COVID-19.

Author: Kevin Fulcher

How Interact and Interreg responded to COVID-19

When COVID-19 struck Europe, Interact's working methodologies had to change dramatically. Thankfully our agile team is well used to connecting from all over Europe.

With complex tools for the post 2020 period in vital stages of development, Interact had to quickly adjust to the new reality. Both HIT and the future monitoring system (successor to the eMS) are working to tight deadlines to be ready for the start of the next period – and both are still on schedule despite the challenges posed by lockdowns.

Interact acted quickly to survey a number of programmes in order to understand how their needs have changed. Programmes reported similar challenges throughout Europe. Immediate financial questions have arisen, and of course, post 2020 planning must continue, even if decision makers cannot be brought together in person.

Planned activities have been adjusted to meet the changing needs – including Q&As with the Commission on key COVID-19 issues, exchanges of operational best practice during lockdown, as well as facilitating more solution finding exchanges between programmes.

Meanwhile regular services continue through online events as well as tools for Interreg programmes, and we have just confirmed the shortlisted projects for the Interreg Project Slam, part of the 30 years together anniversary of Interreg.

Despite the challenges, Interact continues to work with Interreg to find answers, and to spread best practice and solutions throughout Europe. And of course, if you want to programme post 2020, we have the online event for you!

More details of our response to COVID-19, including examples of how Interreg programmes and projects support first responders as well as online resources for programming post 2020 are all available at Interact-eu.net

Author: Jenny Koutsomarkou

EU cities facing COVID-19: impact and responses

URBACT, EU's programme dedicated to cities' cooperation, sheds light on coronavirus' impact and how cities respond to the current crisis, with a series of articles and an interactive map.

The most affected

Covid-19 besides a health crisis it's also a social and economic crisis that's hitting poorest people, elderly, men and women in different ways. For the poorest, the access to employment, social networks and basic services has been compromised more than ever before. Many elder people, considered as the most vulnerable age group to the virus, have been straggling to fight social isolation.

Covid-19 has also shown a different face to men and women. While it appears that men are more likely than women to die from Covid-19, it is women who are at greatest risk of coming into contact with the virus since they are relying more on public transport than men. In addition, because of the confinement measures in most European countries, reports of domestic abuse on women have spiked – by over 30% in some places.

Environmental sustainability now

On the positive side, confinement has led to drastic improvements in air quality and the return of nature in urban spaces. The presence of nature in the city, and especially access to green areas, prove important for people's physical and mental health.

Where does cooperation amongst EU cities stand?

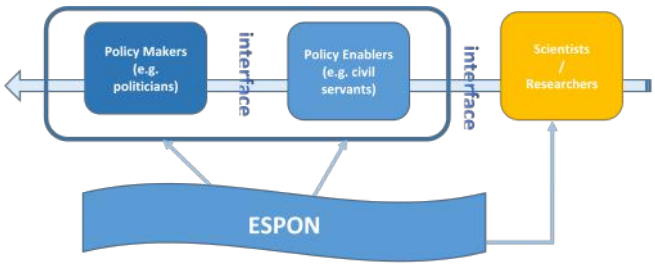
In a time where EU solidarity and cooperation is needed more than ever, around 40 EU cities have shared their solutions and tools on URBACT's interactive map.

URBACT will continue to standby EU cities with local stories and responses to COVID-19.

Shaping the future of the ESPON programme

As the next programming period approaches, the exchanges between the participating Member and Partner States, organised in the so-called Joint Working Group to shape the next ESPON programme, are intensifying. From the beginning, more than a year ago, the process has been driven by a strong commitment from all involved to reflect on the lessons learned from current and past experiences to further develop the programme in a changing environment and make it more effective and efficient.

One of the main challenges is to bring the programme even closer to the needs of policy-makers and other stakeholders. This will be achieved by reinforcing the dialogue and exchange between policy-makers and researchers and academia, which will also help to ensure the usefulness of the evidence produced by ESPON. One of the lessons learned during this programming period was that, to achieve ESPON's mission to support evidence-based policy-making or better informed policy-making, the mere provision of territorial evidence is not enough. Furthermore, to ensure the use of and constructive work with ESPON's evidence in the various stages of the policy cycle, the evidence has to meet the needs of policy-makers: it has to be understandable, accessible and specifically tailored to their requirements. To make this happen, the active involvement of researchers in the implementation of ESPON activities and in dialogue with policy-makers, policy enablers and researchers is crucial.



Such dialogue should help researchers to better frame specific policy-relevant questions and understand the context triggering the demand for ESPON knowledge. To find the right policy responses, the questions asked need to be well understood by all actors. For this reason, the future ESPON programme needs to pay sufficient attention to the creation of interfaces between the its main stakeholders.

The underlying rationale of the next ESPON programme will be knowledge-to-action logic. This means that a policy-maker uses knowledge to take action. Knowledge, however, means much more than having important evidence to hand. Therefore, the research and evidence produced by ESPON needs to be put into the policy context relevant to policy-makers, so that they can learn how to use the ESPON evidence in their reality.

A contribution from the ESPON Managing Authority

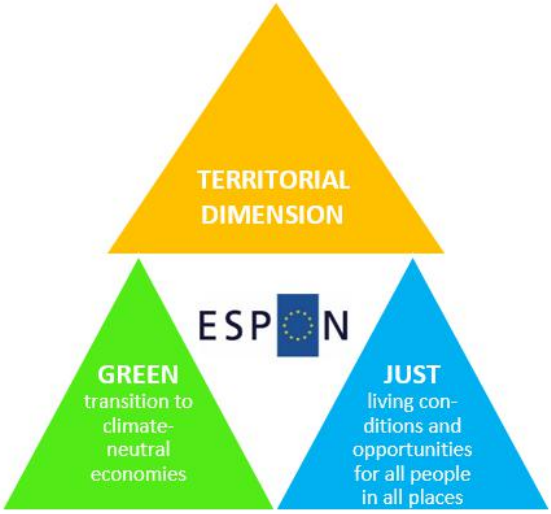
So far, this aspect has not been well enough developed in ESPON. From now on, first, there needs to be a stronger focus on knowledge development, which means in practice ensuring that policy-makers and other users of evidence can learn how use the evidence in the relevant policy context. Second, the evidence produced by ESPON needs to be better linked to the knowledge demands of stakeholders to be useful, and this can be achieved only by directly linking evidence production with outreach activities, like the parts of a gearbox.

Evidence on what?

What makes ESPON different from other research programmes is the systematic focus on territorial dimensions and perspectives as the prism or lens through which it organises and approaches all its research activities. ESPON has been unique in developing a functional approach to territorial development over many years, and it analyses policy challenges and their implications both from a territorial perspective and taking a pan-European comparative approach. Accordingly, the consequent focus on territories, places, cities, rural areas, etc., will continue to be one of ESPON's fundamental characteristics.

ESPON is part of, but also should contribute to, cohesion policy, while supporting the Territorial Agenda and its implementation. The themes related to territorial cohesion – as defined in cohesion policy and in the (currently still draft) Territorial Agenda 2030 – offer a broad framework for ESPON's future activities, but a sharper focus is needed. Therefore, ESPON's interventions should concentrate on Europe's main territorial challenges to which policy-makers have to find the right answers. Adapting to these challenges or creating new paths for territories in terms of a transition towards a green and just development are the two main options for responding strategically. How much ESPON can potentially contribute to such strategies will be the basis for identifying the most important subjects and activities for the next ESPON programme.

The Member and Partner States currently preparing the next ESPON programme are discussing concentrating on two overarching strands, namely GREEN and JUST, under the umbrella of a territorial perspective. ESPON's mission may focus on support for transition through the promotion of territorial evidence for a climate-neutral, just and territorially balanced Europe. These two overarching strands have to be combined and integrated; the work should deliver smart solutions, always with a focus on the territorial dimension.



To ensure that the programme is effective and able to link evidence production and knowledge creation, as described above, the joint working group is also discussing strategically organising and programming ESPON's activities in individual thematic action plans (TAPs), thus giving a thematic approach a central role in defining ESPON's activities.

TAPs are strategic documents identifying the evidence needs in relation to a specific territorial challenge and/or opportunity at different administrative levels. A TAP should identify the existing evidence, the complementary evidence that needs to be produced to address those needs and the specific knowledge activities that are required to bring the tailored evidence to the target groups and enable them to use it in the relevant policy context.

This thematic approach through the TAPs will make it possible to start dialogue and consultation early, at the stage of the needs assessment, by bringing together stakeholders and scientists to identify the specific needs to be addressed. This might involve flagging existing and available evidence, defining the added value that additional ESPON research activities could bring or considering what questions could realistically be answered. This approach would also ensure the necessary synergies and interrelation among ESPON's activities on a particular theme.

Model for a Thematic Action Plan

Next steps

The Joint Working Group is actively seeking to further focus the thematic interventions of the ESPON programme to better match the evidence needs of all stakeholders and target groups and to develop further the details of the implementation model. The next steps envisaged by the joint working group include launching, in the coming weeks, a public consultation concerning more specific themes for which evidence is needed, open to all stakeholders and scientists. The results will help the Joint Working Group to further focus the thematic scope of the next ESPON programme. More information will be shared at the next ESPON seminar, to take place in Berlin in the third week of November 2020, an occasion when we can, we hope, meet again physically to discuss the future of the ESPON programme.

Geography of COVID19 and first policy answers in European regions

Author: Nicolas Rossignol

The sudden appearance and exponential increase in severe coronavirus cases disease (COVID-19), and the resulting pressure on healthcare systems, have led almost all European governments to put in place measures to limit their economic and social activities.

For the first time in recent history, deliberate political decisions have generated an economic and social crisis on an unprecedented scale. While most of the consequences of this crisis are still ahead of us, the first real effects are already being felt with the shutdown of entire sectors of the economy, rising unemployment and an explosion in public spending.

Although all have been affected, the circulation of the virus and therefore, the strain on healthcare systems did not impact European countries with the same intensity. And the differences are even greater at subnational scale, with a very high concentration of hospitals being overwhelmed in a small number of regions while most others were largely spared. Many statistics have been published to help us to understand the dynamics of the pandemic at international level (e.g. by the World Health Organization, the European Centre for Disease Prevention and Control, the European Commission, and several European and North American universities). But little has been released so far to enable reliable comparisons about the kinetics of COVID-19 between European regions. Daily reporting of cases and fatalities flooded the media, but, in the absence of better and more standardised approaches to testing populations and recording deaths, the real diffusion of the virus and the real mortality rates remain largely unknown and inter-regional comparisons misleading.

Of course, the social sciences cannot claim to contribute directly to knowledge of the medical dimensions of a pandemic. However, the circulation of COVID-19 intertwines medical and socio-spatial mechanisms. A geographical reading of the epidemic would provide a better understanding of how it spreads spatially, which could help us to understand why some areas are hit harder than others and the underlying social processes of diffusion. In the longer term, analysis of the links between urbanisation, mobility, local governance, population structures and the spread of COVID-19 could also contribute to discussions aimed at identifying better spatial organisation for more resilient territories.

What is needed now is an effective mapping of the geography of the outbreak at the European scale. How can regional variations be explained? Is it possible to identify links between the spread of the disease and variables likely to influence it?

Can the different approaches taken to lockdowns explain some of these variations? This contribution is necessary to provide policy-makers with a genuine overview of how the strain on healthcare systems developed, using timely, reliable and comparable indicators.

Yet no matter what factors have influenced the diffusion of the pandemic, all European territories are facing its consequences, in particular in terms of losses in economic activities and jobs. Many indications already make clear that, without doubt, existing social and economic challenges, especially those that affect the most vulnerable citizens and left-behind places, will become substantially harder to tackle in the months and years to come as a result of the lockdowns. Upcoming impacts have started being identified and analysed in some countries and at the international level, but no European overview has been provided so far that focuses on regional or local levels. These views are challenging and need to be addressed with innovative policies and ideas.

In such times of emergency, policy responses by public authorities have had a direct and essential influence on the mitigation of the impacts of COVID-19. It is critical to share and understand what has been undertaken. What has proven to be efficient and could be repeated in the future in the event of another widespread emergency. 'In the longer term, analysing these policy responses in times of isolation and border closures could provide a real opportunity to estimate the true socio-economic value of territorial cooperation. In other words, it is necessary to increase mutual learning and identify lessons learned to make territorial systems more resilient. The contributions of the European associations of local and regional authorities to these efforts could be substantial.

As Vice-President Dubravka Šuica emphasizes in her message to ESPON, a better understanding of the age structure, population's concentration or households composition can help predict the critical cases and aid in more precise planning. It can also support local and regional governments in taking more effective measures and in better preparing exit and recovery plans.

At ESPON EGTC, we think that it is now important for us to contribute to the efforts undertaken at EU, national and regional levels. To help gain a better understanding of the territorial patterns of the epidemics and to support the definition of renewed place-based policies to tackle the upcoming socio-economic crisis.

Outlook for the German Presidency

Author: Daniel Meltzian

The COVID-19 pandemic has shifted the priorities of the German Presidency of the Council of the EU. Many important decisions have been taken during the current Croatian Presidency, but a lot more remains to be done to get Europe's societies and economies back to robust growth, drawing lessons from the crisis and addressing its significant social impacts and human dimension. The territorial agenda 2030 will play an important part in this process.

The spreading of the virus has shown the interconnectedness and interdependencies between places in Europe and worldwide. Fragmented policy responses illustrate the misalignment between political and administrative delineations and the spatial impact of policies, and emphasise the need for increased cooperation and coordination across borders.

The pandemic has also had very different impacts on the various parts and regions of the European territory. The risk of new and deepening inequalities between places and between people in Europe has grown as a result of the crisis. The need for territorial cohesion, solidarity and convergence has never been more relevant. We need a Europe where all places have an equally positive future and the territorial agenda 2030 is at the heart of ensuring this.

Under the German Presidency, we want to successfully complete the renewal process of the territorial agenda 2030.

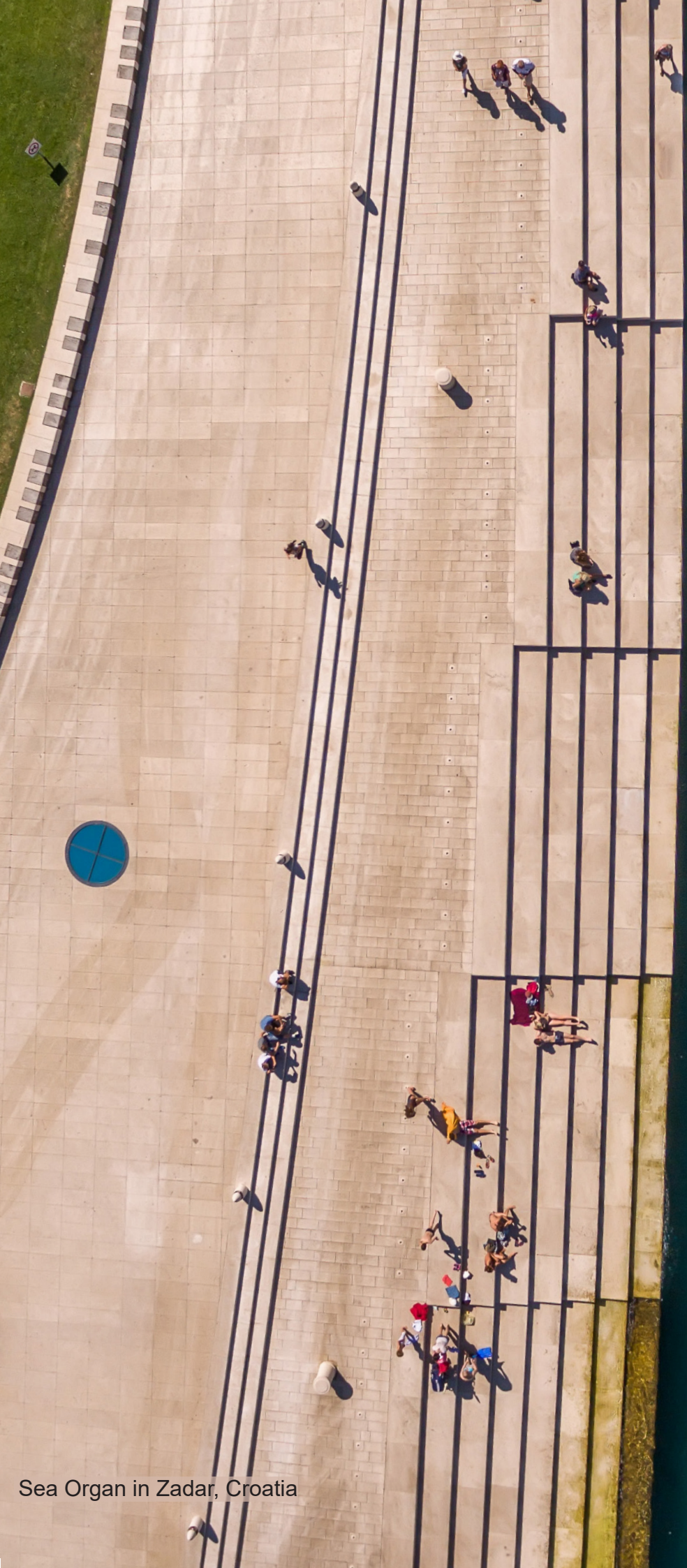
We plan to hold virtual meetings of the Task Force on the Renewal of the Territorial Agenda on 1 July and, if necessary, on 19 August.

On 16 September, the Network of Territorial Cohesion Contact Points and, on 20 October, the Directors-General for Territorial Cohesion will meet in Berlin. At the moment, we plan to hold face-to-face meetings in parallel with some videoconferencing elements depending on the situation at the time; we will closely follow the process of reopening in Europe and adjust our planning accordingly.

During the German Presidency, we would like to highlight through ESPON policy papers two aspects related to cross-border spatial monitoring, to gather reliable, consolidated, analytical information on spatial developments for policy- and decision-makers and on structural transformation, with a focus on climate change and carbon neutrality but also including topics ranging from digitalisation to economical regional disparities.

The ESPON-week with meeting of the ESPON 2020 Cooperation Programme Monitoring Committee, the Joint Working Group on the ESPON post 2020, the ESPON seminar and the ESPON Contact Points (ECP) meeting is sheduled from 16 to 20 November and we hope to be able to welcome participants to this event in Berlin.

Finally, on 1 December, ministers for territorial cohesion will convene in Leipzig to adopt the territorial agenda 2030 and kick-off several implementing actions around Europe. To accompany the territorial agenda 2030, we are working on an efficient governance structure so that the priorities of the agenda can be put into practice and applied at all administrative levels and in all sectors. ESPON with its extensive territorial knowledge and project experience will play a decisive role in ensuring the success of the territorial agenda 2030.



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