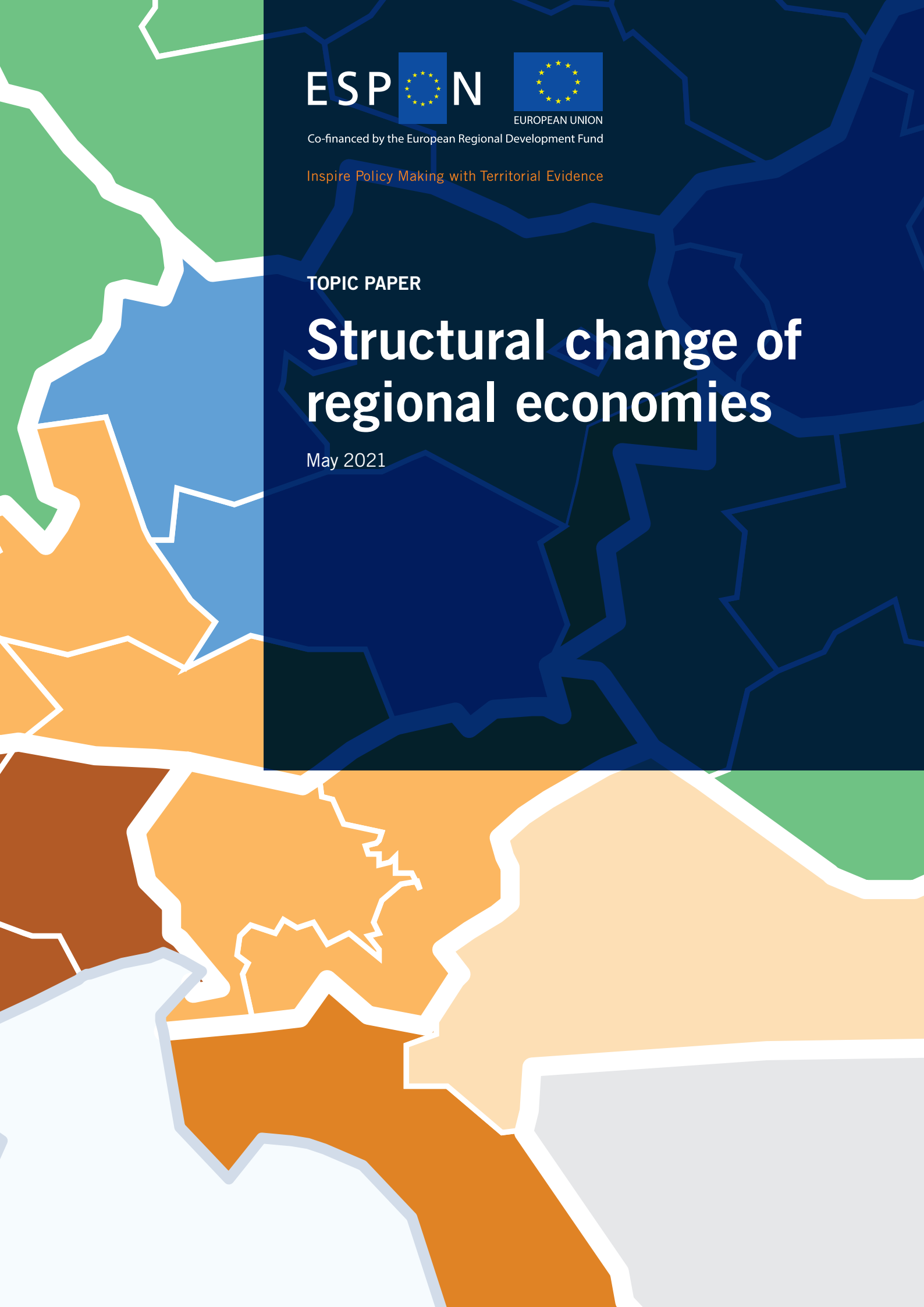


ESPON

EUROPEAN UNION

Co-financed by the European Regional Development Fund

Inspire Policy Making with Territorial Evidence

TOPIC PAPER

Structural change of regional economies

May 2021

Europe is facing two major challenges: population decline and climate change. However, not all cities and regions are affected in the same way. Concerning the demographic issue, if we consider the double effect of longer schooling and an ageing population, this will result in a significant reduction in the working-age population with economic and social consequences that could be disastrous for certain territories. Concerning the climate problem, heat waves, marine submersions, forest fires, and other droughts are already very noticeable in certain regions and at certain times. Still, if nothing is done, they are likely to spread geographically, increasing in frequency and intensity. Moreover, the COVID-19 crisis has highlighted, and sometimes accentuated, socio-economic and territorial inequalities. It has also revealed the differences in the institutional, financial and anticipatory capacity of cities and regions. In this context, more than ever before, there is a need for structural changes in regional economies.

- Climate change and demographic decline are likely to have differentiated impacts on different cities and regions, calling into question the European cohesion.
- It is necessary to capitalise on awareness and support citizen initiatives to implement structural changes that have become indispensable.
- In order to break the vicious circle of population decline, the silver economy must be seen as an opportunity.
- The design of public policies must take the long term into account. To do so, it is necessary to set up strategic anticipation approaches for territories.
- Structural changes must go through a territorialisation of activities and ecologisation of practices. The circular economy can be an essential lever of these changes.

1. Introduction

The health disaster triggered by the COVID-19 crisis has direct effects on the resilience of states in the face of a shock of international proportions. Measures to contain, protect populations, strengthen health systems, and support businesses and the economy were taken as a matter of urgency to mitigate the disastrous consequences that the transmission of the disease could have (ESPON-GEOCOV). Over and above these short-term economic consequences, which have led to major measures being taken on government spending and a global response by central banks, the coronavirus crisis has revealed several major challenges, leading to far-reaching structural changes in Europe. With COVID-19, the halt in our economy has brutally revealed logistical dependencies, loss of industrial skills, and the weight of personal services, local trade, and tourism in regional economies. COVID-19 led to a polymorphous crisis, referring both to macro-economic impacts and to global issues with a local impact.

The coronavirus crisis then questions the resistance of the European Union (EU), States, regions, cities, businesses, and citizens on several aspects. This crisis raises questions about new ways of production and consumption: (i) a change in the organisation of value chains and the need to relocate part of our economic activities; (ii) the importance given to long-term prerogatives and the need for better anticipation; (iii) the need for coordinated and coherent public policies between scales and as decentralised as possible to improve the responsiveness and resistance of stakeholders; (iv) the need to green our practices by limiting our impact on the environment; and (v) the need to regain proximity in services for the population.

In addition to these elements – in all the EU territories, but even more so in those located in the European deprived regions – crisis elements can be seen as an unfinished catching-up process. Many studies have highlighted the imperfect implementation of programs supported by the structural funds due to institutional weaknesses and, consequently, problems in territorial governance modes. The territorialisation of the economy, through the concentration of wealth, income it brings about and the disparities it produces, is proving to be a powerful mechanism for structuring territorial systems. Depending on each country's economic and industrial history, the spatial planning policies implemented, the growth strategies of companies, and the new rules of the international economy, the economic geography of the territories in Europe is reshaped. The processes of concentration and deconcentration of wealth contribute to shaking up the hierarchies between States, regions, and large metropolises.

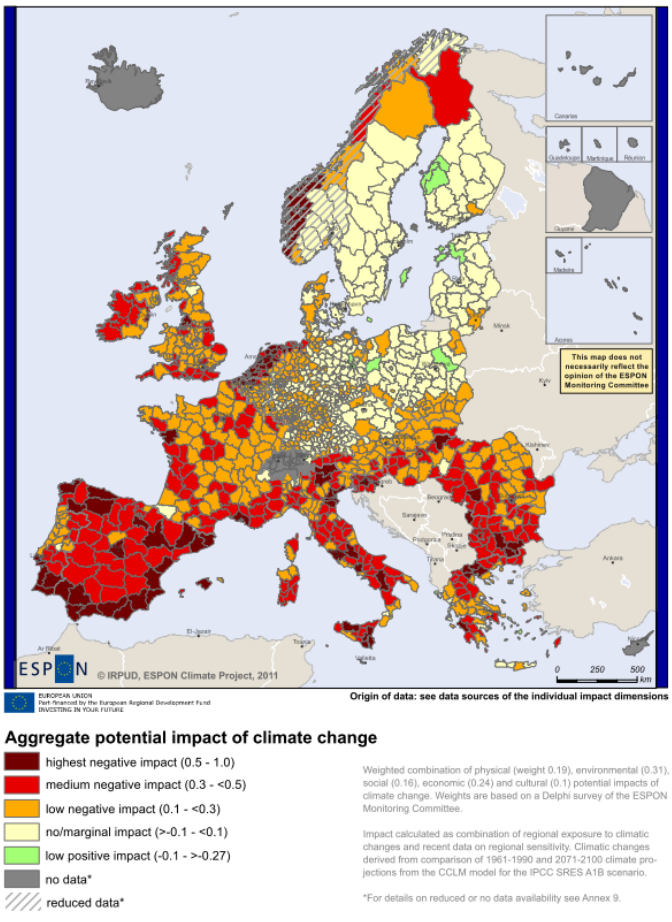
This crisis reveals deeper changes in progress, which this policy brief proposes to analyse. Specifically it addresses the need to implement structural changes in regional economies, especially in deprived regions that face many challenges. How can regional economies be revived and their attractiveness improved in a context where Europe must confront climate change, succeed in its energy transition and limit the effects of demographic decline? Finally, could these challenges not be opportunities to set in motion a positive dynamic in these territories? How can regions and cities create the framework conditions to enable these inevitable transformations to take place? This policy brief attempts to shed light on the main advances in ESPON's work to meet the challenge of these structural changes (the global warming and demographic crises). It also presents the main challenges, a research plan, and policy recommendations for European regions.

2.
ESPON's contribution to address this issue

2.1. Fighting climate change and adapting territories: a risk of increasing inequalities

Several ESPON projects have addressed issues related to the effects of climate change and natural hazards on territories. The ESPON-CLIMATE (Climate Change and Territorial Effects on Regions and Local Economies) project analyses more precisely how and to what extent climate change has an impact on the competitiveness and cohesion of European regions. Based on various parameters, an aggregated climate change impact index has been produced. It distinguishes between (i) the physical impact (sea-level rise for coastal regions and increasing floods for areas crossed by large rivers); (ii) the environmental impact (forest fires and soil erosion among others); (iii) the economic impact (linked to the high dependence of some regions on coastal or mountain tourism, but also related to agriculture and periods of drought); (iv) the social impact (linked to the increase in floods); (v) the cultural impact (with cultural and historical heritage being directly affected, for example, by floods). Thus, as we can see, the effects of climate change are not limited to environmental issues but also (and above all) affect territorial development. The ESPON-TITAN (Territorial Impacts of Natural Disasters) project reaches similar conclusions by focusing the analysis on floods, droughts, storms, earthquakes, and landslides. In the face of these multiple climatic and natural hazards, additional factors increase the risk of impact. The ESPON-SUPER (Sustainable Urbanization and land-use Practices in European Regions) project stresses that the increase in land use and growing urbanisation have harmful effects.

Map 1 : Vulnerability to climate change of European regions (ESPON-CLIMATE)



The ESPON Climate project results also show that some sectors of activity will be more affected than others (agriculture, forestry, tourism, and energy). Thus, the vulnerability of regions depends on their dependence on these sectors in particular. As the level of adaptive capacity differs between regions, the effects of climate change may exacerbate regional disparities in Europe. However, for regions lagging in economic development and/or in demographic decline, the impact of climate adds to the effects of the crises and the difficulties encountered in recovering. According to the various reports published, regions in Eastern Europe and Mediterranean Europe seem to be particularly exposed (Map 1). The ESPON-BRIDGES project (Territories with Geographical Specificities) proposes a reading of the challenges faced by regions with specific territorial contexts (rural, mountainous, island, coastal, and sparsely populated areas). Considering these characteristics, it highlights that integrated approaches are necessary to meet the challenges of climate change and the energy transition. In particular, it calls for cross-sectoral coordination to address these complex interactions between social, economic, and ecological aspects.

Case study: Bergen

In Bergen, the most significant impact will be due to the expected rise in sea level and increased exposure to coastal storms. The port, historic buildings, transport infrastructure, and wetlands will be affected. However, the city has a high adaptive capacity to cope with climatic hazards. In any case, the measures put in place will have to integrate all the actors concerned and require regional governance.

Source: ESPON Climate

Because of the risks faced by regions in the context of climate change, two reports propose to analyse the potential for deployment of the circular economy and energy transition as avenues to be explored for a more harmonious and responsible development of territories. In the ESPON-CIRCTER (Circular Economy and Territorial Consequences) project, the extent to which cities and regions can implement the circular economy according to their potentials is assessed. It is shown that these potentials varied significantly between cities and regions. It can be explained by several factors such as (i) available biomass resources (to develop the bioeconomy in rural areas in particular); (ii) concentration of industrial activities (to develop industrial symbiosis approaches); (iii) accessibility and connectivity (to develop sharing economies); (iv) technologies (to develop eco-design principles); and (v) installed knowledge bases and awareness (to develop and facilitate collaborations between various stakeholders).

In the ESPON-LOCATE project, territorial disparities in energy consumption and production patterns are also reported. Moreover, the report highlights differentiated potentials regarding renewable energy exploitation due to geographical and climatic differences. For example, in wind energy, the potential is more significant for northern European regions, whereas southern regions are at an advantage when it comes to the potential for installing solar energy. One of the key conclusions of the analysis is that it is the natural endowment of a region that is important, but its combination with the legislative aspects, socio-economic, and governance conditions of that region are essential to have an impact.

2.2. Demographic change, an unequally ageing Europe

The changing birth rate is no longer sufficient to ensure the renewal of the population in all the countries of the continent, mainly due to immigration. The ageing of the population will continue to increase. Population growth in the EU hides major disparities across its territory. The natural balance of the new members, from the former Eastern Bloc, is negative almost everywhere except in the Czech Republic and Slovakia. In 2018, the migratory balance was positive in all EU countries except for Croatia, Romania, Latvia, Lithuania, Bulgaria, and France. Still, it is in the southern European countries, particularly Spain and Italy, that immigration is most significant. Moreover, fertility characteristics have changed profoundly: women have fewer children and have them at much higher ages. Thus, there is no country in the ESPON area where the cyclical indicator reaches the level necessary for replacement, which is 2.1 children per woman. Finally, health conditions are generally quite good throughout the European Union, judging by the level of life expectancy and its significant increase in recent years. This is one of the driving forces behind population ageing, leading to an increase in the share of older people across Europe and the rise in the share of older people among the elderly.

The DEMIFER (Demographic Diversity of the European Territory) project has developed a typology based on demographic and migration data. It was highlighted that Central and Eastern Europe and Greece would have to face major challenges, affecting the demography of the territories and their economy. Demographic decline could lead to labour shortages, as only three out of four people retiring would be replaced. Therefore, one of the major challenges is to halt this demographic decline, which, through its increasing ageing, weakens economies and has an impact on employment (ESPON - Geography of New Employment Dynamics in Europe).

Given this demographic ageing and/or the demographic decline that is accelerating in certain regions, the question

arises concerning access to basic services in these territories (ESPON-PROFECY - Inner Peripheries: National territories facing challenges of access to basic services of general interest). Indeed, given the depopulation, political decision-makers tend to close these services due to a lack of sufficient inhabitants. The result is the marginalisation of territories that suffer from demographic problems and generate other collateral problems with socio-economic consequences. As a result, some areas have low economic potential and suffer from 'disagglomeration penalties' leading to a decline in well-being and stagnation or even demographic decline. In these territories, implementation of cross-border services appears to be an effective solution (ESPON-CPS - Cross-border Public Services).

Thus, these demographic changes can lead to vicious circles for certain territories. Among them, shrinking rural areas sometimes suffer (ESPON-ESCAPE - European Shrinking Rural Areas Challenges, Actions and Perspectives for Territorial Governance). Therefore in these territories, it is important to apply cooperation strategies to implement social and organisational innovations that make it possible to overcome the status of shrinking areas. Moreover, the increased use of digital technologies or shared services will make it possible to offer public services in territories where they are sorely lacking.

Case study: Siemiatycze, Hajnówka and Bielsk districts (LAU 1) in Poland

There has been a long demographic and industrial decline (local woods and chemicals) in this region since the end of the Second World War. As a result, young people have left the region to move to metropolitan areas in Poland. These problems are compounded by limited financial resources, a low level of education, and low social trust. To overcome this vicious circle, the policy recommendations advocate focusing development on multifunctional and sustainable agriculture. In terms of improving the quality of management, local governments should be strengthened, their cooperation increased, freedom of action in solving their problems and financial support should be provided.

Source: ESPON ESCAPE

3. The need for a structural change of regional economies

Evidence from ESPON's work shows that cities and regions have to face crises with a long-term horizon (demographic change and climate change). But it is also true that European territories have recently had to face other types of crises which have been unprecedented, one-off, and large in scale (economic and financial crises, the health crisis). There are thus crises of different forms and magnitude, which generate inequalities and can affect the cohesion of territories. Indeed, studies show that regions are not affected in the same way by crises, whether environmental (Markkanen and Anger-Kraavi, 2019); demographic (Kashnitsky et al., 2020); economic (Capello et al., 2015); or health-related (ESPON, 2020). Similarly, the costs of these crises and regions' ability to withstand them are also highly differentiated and depend on the structural and territorial characteristics of European regions (Capello et al., 2016; Giannakis and Bruggeman, 2020).

Given the risk of increasing inequalities aggravated by the climate and demographic challenges raised, it becomes indisputable for regional economies to make structural changes to cope with future crises. However, the COVID-19 pandemic has shown that highly differentiated local responses can be put in place in times of crisis. These spatial variations in public policies can be explained by economic (developed regions versus lagging regions); demographic (regions in demographic decline versus attractive regions); territorial (metropolitan areas versus rural areas); and institutional (level of quality of governance and cooperation between actors) characteristics. This is one of the major lessons of the ESPON-GEOCOV project. Beyond these parameters, the pandemic also revealed the question of the means available to cities and regions to cushion the shock. Here again, cities and regions do not have the same financial, human, or legislative means to make the structural changes necessary to prepare for future crises.

Whether these crises are economic, ecological, demographic, or health related, they are above all global and systemic, and partly unpredictable. It is indeed difficult to accurately predict the, more or less, long-term consequences of current and past choices. It is all the more important for territories to be prepared to face these crises. Moreover, it is not insignificant that Ursula Van der Leyen sees the Green Deal as a large-scale operation to combat climate change. This roadmap is intended to make the EU a leader in the fight against climate change. The Presidency of the European Commission explained that "on the one hand, it is about reducing emissions, and on the other, it is about creating jobs and boosting innovation". This political document is important because it places climate urgency at the heart of European policies as never before. It sees the coincidence of three phenomena: (i) the mobilisation of citizens on the climate issue; (ii) the real risk of recession in Europe, which calls for new industrial and economic projects; (iii) the need to hold on to a federative project and to recreate cohesion in a Brexit context. The levers identified to implement the ambitious objectives set call for a restructuring of regional economies: energy, energy renovation of housing, and even international trade. To facilitate the achievement of carbon neutrality by 2050 for countries that are still highly dependent on coal, a "just transition" fund of 100 billion euros of investment over the next seven years will enable certain regions to move away from fossil fuels by limiting the economic and social impacts caused by the energy transition. From this point of view, the Green Deal constitutes an important political and financial lever to promote structural reforms of regional economies.

4.
How can we support the regions so that they succeed in making the necessary structural changes?

Achieving these structural changes is not easy because each region has its own specificities. Some of them have always based their economies on carbon-based production. The Just Transition Fund (with a budget of 17.5 billion euros) is designed to help regions move away from fossil fuels. This is a delicate issue for some regions that are dependent on gas, coal, and oil. To which profession should workers be converted? With what money? The role of the Just Transition Fund is to help Member States switch to cleaner energy sources while easing the social burden of this conversion. It will finance investments in renewable energy, storage, energy efficiency, and heat production for district heating networks. It can also be applicable in all economies suffering from industrial decarbonisation.

Indeed, the epithet "just" (Just Transition Fund) is not insignificant. It is important to ask the question of solutions for regions that have long based their production system and their economy on these non-renewable energies. Stopping these productions could be perceived as unfair for these regions, because it would mean cutting their wealth. So how can we make these structural changes viable and fair? We believe that part of the answer lies in the implementation of long-term diversification strategies. From this point of view, the process of entrepreneurial discovery – initiated within the framework of the smart specialisation strategy – can be seen as an instrument for developing and managing Just transition fund. Indeed, this Just Transition Fund (JTF) should not be seen as a simple financial compensation mechanism but more as a lever to encourage regions that have based their economy on carbon-based production to implement a new economy from scratch.

As explained by Iotzov and Gauk (2020), the proposed JTF actions dedicated to economic revitalisation, social support, and land restoration are expected to have a positive marginal effect on structural change potential. However, the JTF can serve as a purposive instrument for designing, governing, and implementing Territorial Just Transition Plans, and applying a strategic mission-oriented acquisition of funds. The authors argue that three types of JTF actions are crucial, as they are likely to influence parameters that best explain the variance in the structural change potential of regions: actions related to (i) research and development (R&D) investments; (ii) productive investments; (iii) business incubation and consultancy for firm creation and development

5. Main challenges for successful structural changes of regional economies

Given the need to implement these structural changes, it is reasonable to ask what kind of policy action is most likely to bring about these transformations for a more sustainable and inclusive economy/lifestyle for all. It is also important that an agenda for future research emerges.

5.1. Towards territorial governance and increased coordination between stakeholders

The transition to sustainable development is built at the local level. Therefore the governance of territories is, now more than ever, a major challenge for our societies. In this context, a new concept has emerged in recent years: territorial governance. It can be defined as a process involving constructing common frameworks to coordinate the representations and strategies (individual and collective) present in a territory. Throughout the process, actors interact in a conflictual and/or cooperative manner (Torre and Traversac, 2011) and make choices to implement a territorial development project. The implementation of territorial governance is a key issue for implementing structural changes.

Policy responses and recommendations

Capitalising on awareness and supporting citizen initiatives

It should be stressed that there is now a real awareness of climate and demographic issues. With the COVID-19 crisis, both households and companies are becoming aware of the impact that air flights have on the environment and that most international meetings can be held over the Internet, which will probably lead to an explosion of virtual meetings in the coming years. As far as consumers are concerned, with containment, there has been a better consideration of the impact of daily actions and their effects on the climate. Many people have (re)discovered local consumption of products and their ecological virtues. Another example is tourism and air travel, which have been drastically curbed due to the spread of coronavirus and the ban on travel to different countries. All of this has only reinforced the growing population's awareness of the need to move towards more virtuous and sustainable economic models. Regarding demographic aspects, citizens have also become aware of the importance of caring for the elderly and the problems associated with an ageing population.

Because of the increasing openness of the actors on these subjects, it seems necessary to capitalise on this awareness to make the required structural changes. In this sense, public policies should increase spending on vocational training and education and reflect on a new system that is more agile and responsive to the changes that would take place. A European Investment Bank survey (2019-2020) shows the inequalities in the perception of potential risks. This supports the idea of the need to carry out educational activities among companies and the population to reinforce the feeling of a pressing need to make structural changes.

Governance and acceptability

The choices made to address the climate crisis and implement the energy transition often involve an asymmetry of power between stakeholders, leading to a strong rejection of the project. Numerous studies show that a major obstacle to the deployment of the energy transition lies in the problem of social acceptability linked to inefficient territorial governance systems. For example, Bourdin et al (2020) explain that biogas units are more easily accepted when they are accompanied by a comprehensive territorial governance policy based on the creation of trust and a systematic integration of all stakeholders, including those who might be opposed to them. Relationship-based management at an early stage of the project considerably increases social acceptability. This should involve the highest level of public engagement from the very beginning of the project, and a two-way exchange of information can transform the opinions of both parties. To overcome resistance, trust must be established through transparent communication.

Moreover, to achieve structural change in a regional economy, strong interactions between policymakers, businesses, associations, and citizens are needed. These structural changes induce strong transformations and can profoundly modify the activities of certain stakeholders in a territory. Moreover, to foster cooperation, a great deal of

attention must be paid both to the stakeholders' singular interests, their evolution, and to the general interest of the local community, which can also evolve in the implementation of territorial governance. It should be noted that the centres of interest and objectives within the categories of actors may differ. These differences should be taken into account to allow for mutually beneficial multilateral communication and knowledge transfer between the parties concerned. Territorial governance is, by nature, complex and requires instruments and arrangements adapted to local specificities.

Moreover, given the mixed reactions to large-scale energy projects (wind turbines and biogas in particular), decision-makers need to ask themselves whether the public will react positively to the uncertain (and even marginal for some) gains from the development of this renewable energy. There is also a distributive justice issue here. Indeed, the benefits of implementing such projects for the local community remain minimal and are confined to a limited number of economic actors. To promote the projects' social acceptability and avoid any objections to them, it seems indispensable to ensure "local equity", i.e., a situation where all the stakeholders in a territorial development project agree to compensate for the externalities collectively identified as unfair. Among the proposals to ensure "local equity" are (i) a reduction in local taxes linked to the increase in tax revenues for local authorities; (ii) a reduction in the cost of energy purchase for citizens; (iii) compensation for owners of houses close to the facilities; (iv) partial or total ownership of a project by citizens; and (v) a strengthening of the law to prevent these ecological facilities from being too close to housing.

Territorial foresight workshops

Climate change implies an increase in risks such as rising water levels or snowmelt, with major consequences for regions that make a living from activities linked to the exploitation of natural resources, such as tourism or agriculture. Here again, as was the case for renewable energy projects, projects aiming to cushion the shock of climate change must be shared by the territories' stakeholders. Given the interdependencies between several sectors of activity, a relevant way to accompany these structural changes would be to organise territorial foresight workshops. This would involve inviting a wide variety of stakeholders to identify courses of action to facilitate the development of projects to deal with the risks. In these meetings, the actors of the territory would be invited to (i) carry out a shared diagnosis of the risks facing the territory; (ii) build a shared vision of the future by choosing among several previously constructed scenarios; (iii) give visibility to the dynamics facilitating or slowing down the implementation of these projects; and (iv) produce messages to raise awareness and anticipate future crises and risks.

Collective action and governance principles

Finally, the experience of collective action in large-scale projects aimed at structural change allows five general principles of governance to emerge: (i) legitimacy: the majority of stakeholders must both recognise themselves in the values that govern the exercise of power and trust those who exercise it and carry the project; (ii) democracy and citizenship, which cannot be reduced to the formal exercise of democracy or the enjoyment of rights without a counterpart responsibility; (iii) the relevance of governance regimes, i.e., their effective adaptation to the goods and services to be produced and managed; (iv) partnership, i.e., the recognition that the public interest is always the fruit of cooperation between various types of actors and cannot be reduced to a monopoly of public power; and (v) the articulation of the scales of governance.

The role of intermediary actors

The transformation of the productive models of goods and services implies rethinking the organisational models of complete sectors, whether in industry, the social and solidarity economy, culture, digital, agri-food production, education, urban development, etc. This implies an in-depth reflection on goods and services to assess their necessity and identify other ways of responding to needs and other operating models.

These structural changes are not self-evident. Some actors in the territory may be inclined to implement them, others more reticent. In the situation of opposition to transformation projects, there is a need for territorial intermediation. The latter can be defined as the mediation of actors to favour proximity and coordination to carry out a territorial project. It would be dynamic and based on a set of practices, devices, and engineering, allowing for a better understanding of how the territory, through the relations of the coordination of actors, functions and organises itself in complexity. There would thus be certain particular actors - intermediaries - who would help to implement territorial development policies. Taking the example of biogas deployment in the context of energy transition, Bourdin and Nadou (2020) explain that local authorities can play this role of intermediary actor. The latter is a determining factor in the success of projects. This intermediation is characterised by various roles: facilitator, neutral actor, and pedagogue. Thus, territorial intermediary actors make it possible (i) to be the guarantor

of an integrated and place-based approach; (ii) to establish trust with local actors; and (iii) to have an incentive role in the implementation of projects for the transformation of regional economies.

Research agenda

One line of future research would be to study the territorial governance of projects to make structural changes to limit the effects of climate and demographic change. This means analysing both the dynamics of the interplay of actors and the mechanisms and instruments for implementing this territorial governance. What cooperation exists between associations, local authorities, businesses, and research? How could these actors coordinate at different levels?

Within local authorities, companies, and associations, different actors carry, support, and initiate these structural changes: what are the profiles of the actors who bring the change? What are their positions in their organisations? What are their resources (networks, expertise on economic, environmental, and demographic issues, past experiences, etc.)? What are their interests and motivations? How do they manage to build collectives, bring together partners, and interest their interlocutors in their initiatives? Who are the decision-makers in territorial transformations? Who are the "intermediate actors" and what are their roles? The research projects could focus on emerging actors and retrospective analyses to draw lessons from transformation projects that are already well underway.

Given the problems of acceptability of this type of project, future research could also focus on these initiatives' brakes and levers. How have the actors managed to unblock situations? Are there types of territories where it is easier for initiatives to emerge?

5.2. Breaking the vicious cycle of population decline

In 2019, for the second consecutive year, more people died than were born in the EU. While its population continued to grow slightly, reaching 447 million after Brexit, this was only due to positive net migration. Some countries, such as Ireland, Sweden, Denmark, and France, continue to experience natural population growth, but others are already well on the way to decline. This has been the case in Eastern Europe since the late 1980s. But also, more recently, in southern countries such as Italy, Spain, and Greece, a trend whose economic, social, and political implications have long been underestimated by European leaders.

This may explain why Ursula von der Leyen has chosen, for the first time, to include a portfolio specifically dedicated to this issue. If the current trend continues, the number of Europeans is expected to fall from 2030 to 424 million in 2070 - a 5% drop in half a century. These continent-wide projections pose several problems.

Policy responses and recommendations

Limiting the loss of the labour force

On the economic front, there is a risk of losing part of the working population. This is a brake on wealth creation. However, the regions that could potentially be most affected are those with a major need for labour due to the structure of their economy. To counter these effects, one recommendation could be to develop the employment of women and the training of low-skilled people. Another way forward is to encourage people aged 55 to 64 to stay at work, which is not easy at the moment.

Climate change has consequences in terms of migration and human mobility, and its impact will increase in the coming decades. Given the complexity of the relationships involved, climate risks do not mechanically lead to migration flows. Far from being an intrinsically negative and undesirable outcome, migration can also be an adaptation strategy in its own right. Consequently, the role of immigrant labour (climatic or otherwise) is likely to play a role in certain regions that combine demographic decline and economic difficulties. The issue of their integration will be a determining factor for local policies.

Taking into account the effects of population ageing: the silver economy as an opportunity

The share of people over 65 could reach 30% within half a century. Indeed, health systems will have to be adapted to the growing share of Europeans over 80. This is expected to double by 2070 and will reach 13% of the population[1]. Seniors have specific needs in terms of goods and services. The silver economy can be an opportunity for territorial development, particularly in areas affected by an ageing population . Indeed, many sectors are concerned: health (home care, remote medicine, nutrition, connected health objects), security and autonomy (remote assistance, detectors), housing (adapted housing, home automation), services (personal services, domestic help, provident funds), leisure (tourism, sport, games), communication (mobile phones,

1 https://ec.europa.eu/digital-single-market/en/news/silver-economy-study-how-stimulate-economy-hundreds-millions-euros-year

tablets, the Internet), and transport (mobility aids, adapted transport).

In certain regions, the silver economy can represent an opportunity, particularly for tourism for retired people, or even the permanent settlement of retired people. This is notably the case in Portugal. The latter offers many advantages to senior citizens in search of a pleasant climate, security, quality of life, and living cost. Real estate can be ten times cheaper than in France, and the current tax advantages are not negligible. In January 2013, Portugal offered a ten-year tax exemption on income from abroad. In three years, more than 25,000 French people have moved to Portugal.

Case study: Pays de la Loire (NUTS 2) in France

The coastal location, along with a temperate climate, attracts a significant number of retired people. The demand for specific services adapted to the need of this population is, therefore, skyrocketing. More than 400 SMEs and associations are currently working in the sector, and the prospects for development are substantial.

The "Rendez-Vous d'Affaires de la Silver économie Pays de la Loire" (Business meeting gathering all key public and private actors) is an important event contributing to fostering networking and business opportunities in the sector.

Source: ESPON SME

Fighting depopulation: restoring services to residents and businesses

A form of “vicious circle” can explain the depopulation of certain territories. Some people decide to leave remote regions (especially young, qualified people who wish to settle in metropolitan regions, despite the general increase in the standard of living in these remote regions); the declining population makes it no longer wise to maintain the services offered; the decline in the range of services does not make the region attractive, or it even encourages people living there to leave it to join territories with more services. In a survey published in May 2019 by the European Council on Foreign Relations, Spain, Italy, and Greece were among the six countries in which respondents said they were more concerned about emigration than immigration[2]. In these territories, the population is ageing, villages and small towns are being emptied of their population, and people feel abandoned. There are no more shops, no kindergartens, no more doctors, etc. This reality erodes confidence in democratic institutions and can create the conditions for a vote of discontent characterised by rising populism (Dijkstra et al., 2020).

Therefore, structural changes are needed in these disaster areas. This is a challenge in terms of territorial cohesion. Therefore, a long-term strategy must be put in place to support the populations concerned and restore the attractiveness of the geographical areas in the process of depopulation. This may involve increasing accessibility and connectivity. It must not only be by rail or motorway but also include digital accessibility and connectivity. Public services, social services, employment assistance, and online declarations are just some of the tools set up by local authorities and the State that are not accessible to people living in areas where digital technology is not sufficiently deployed. However, these tools do have a role to play in enhancing the value of the territory. Beyond this implementation, this work must be accompanied by a vision: health, economic, and development policies can be born and allow remote territories to reinvent themselves.

Moreover, with the COVID-19 crisis, there is a gain in interest in teleworking. Also, although not all isolated territories can attract companies, they can encourage teleworking. The increased accessibility of remote employment thanks to connected servers and file-sharing solutions enables many employees or self-employed workers to access their dematerialised files. The constraints of mobility, morning and evening childcare, and rental charges are also taken into account by companies. For the region, favouring local workplaces such as low-cost coworking or third places with very high-speed Internet or fibre access encourages local consumption among local actors.

In total, three conditions must be met: a truly effective digital connection for a service adapted to needs, a political vision that supports local opportunities, and, above all, a willingness to help local actors who are getting started.

Research agenda

Several types of research can be carried out in the future. A first one concerns the analysis of strategies implemented by political decision-makers to tackle depopulation. What place does it give to the role of immigration? What place does digital technology occupy? To what extent can certain territories in demographic decline fare better than others?

Another research line concerns the silver economy, hitherto little explored in studies in regional science, economic geography, and regional and urban planning. How can all the economic and industrial activities that

2 https://ecfr.eu/article/commentary_europes_emigration_paradox/

benefit senior citizens enable structural changes in regional economies? How does the "seniorisation" of society constitute a lever for economic development and an industrial sector of the future? What entrepreneurs propose solutions/services to meet the needs of senior citizens? How can technological and social innovation be combined to provide a response adapted to senior citizens' needs and their uses? What role do local policies play in promoting its deployment? What are the territorial conditions necessary to implement a silver economy approach at the local level?

5.3. Taking the long term into account in the design of public policies and better anticipating the future

The climate and demographic crises raise acute questions of equity in time (between generations) and space (between territories), mainly because the measures to mitigate these crises can only be effective in relation to the final objective pursued if all the territories subscribe to this objective and simultaneously aim to achieve it in their actions. Therefore, local action in the face of these major changes contributes to implementing the principles of reciprocity and spatial and temporal solidarity. However, the reports from ESPON highlight that cities and regions are not equal in implementing such local actions.

In addition to approaches to reduce the phenomenon, there are also measures to adapt to the effects that are and/or will be manifested in various ways, mainly depending on the intensity of climate change and demographic changes, which vary according to the efforts made to try to limit them. These measures involve structural changes in regional economies. But these changes are complex because decisions have to be taken in a situation of relative uncertainty, with the intensity, nature, and location of the effects only partially known. Moreover, the responses of human societies to the impacts of climate and demographic change are developed locally within a profoundly unequal framework: inequality in responsibilities for the phenomenon (for example, in the climate context, the territories most affected are not and will not necessarily be the territories that historically emit the most greenhouse gases), "structural" inequalities in physical exposure to the various risks and, finally, "cyclical" inequalities in terms of resources (capacity for expertise, anticipation, and repair). These inequalities linked to the effects of these crises can be expressed at different levels:

- at the international level, between countries, particularly in terms of the capacities for expertise, anticipation and crisis management, and the sensitivity of territories to these crises (economic, urban, agricultural, energy, social systems, etc.) ;
- within the same country, between territories that are more or less affected according to the fragility and exposure of the regions (islands, coastal areas, mountain areas, metropolises, etc.) and according to local dynamics (response capacity);
- within the same territory, between populations (social inequalities): the effects potentially affecting certain more "fragile" and/or more "exposed" populations (cf. the 2003 heat-wave in Europe, which primarily affected the elderly).

Consequently, an effort to anticipate and take account of the long term in the design of public policies is necessary.

Policy responses and recommendations

Avoiding a crisis of unpreparedness: towards a strategic anticipation of territories

Actors should develop a greater emphasis on long-term prerogatives through a change in consumption and production patterns. It is a question of taking a long-term perspective but acting quickly because climate and demographic change are major trends that need to be tackled early.

This concerns several elements simultaneously: health conditions, environmental impact, future technologies, and industries, etc. There is no doubt that the coronavirus crisis appears, in the minds of public opinion, to be a crisis of unpreparedness for long-term changes: emergency reactions by the various States to distribute gels, masks, and COVID-19 tests; passivity about the arrival of the pandemic as far as Europe and the United States; and a lack of anticipation of public policies. As a result, many budgetary savings were made in the various European countries, for example, in public health and hospitals. According to Eurostat, public spending on health has fallen from 7.4% of GDP in the Eurozone in 2009 to 7.1% in 2018. The current needs make these short-sighted concerns, which many countries in Europe have put in place, regrettable. The ESPON-GEOCOV study comes to the same conclusions at the local level: the lack of anticipation explains why many of the measures taken by cities and regions were short-sighted.

The decision to engage in strategic anticipation reflection on a territory can be the subject of a consensus among the elected representatives of a local authority. It can also result from the mobilisation of technical services, which will alert elected representatives to the need to start thinking about the future of the territory. The motivations put forward can be varied: (i) a desire to better understand the transformations underway (ageing, digital uses, changes in lifestyles, mobility, etc.) and to "see further" in a world that is continuously changing, and increasingly

rapidly; (ii) questions about the possible evolution or questioning of the territory's development model (the limits of "all residential" development, industrial fragility, the territory's attractiveness running out of steam, the questioning of the agricultural/food-processing model, the positioning of a rural territory in relation to the metropolises, etc.); (iii) facing institutional changes and changes in the scope of intervention of local authorities; (iv) the will not to undergo these changes, but to "weigh" in the dialogue on the basis of a joint project; (v) rethinking local democracy, reconsidering consultation processes, envisaging a new relationship between elected representatives and citizens; (vi) improving decision-making: so they are not based only on intuitions and objectify the trends and transformations under way; and (vii) going beyond opportunistic or short-sighted decisions.

To succeed in the structural changes of cities and regions, it therefore seems relevant to set up a strategic anticipation approach to better understand current and future transformations and develop strategies based on a common vision for the future of the territory. A strategic anticipation approach is an integrated process that articulate expert insights, analyses the current situation of the territory and hypotheses on its future evolution, and proposes a global reflections on the long-term and strategic and operational approaches (Figure 1).

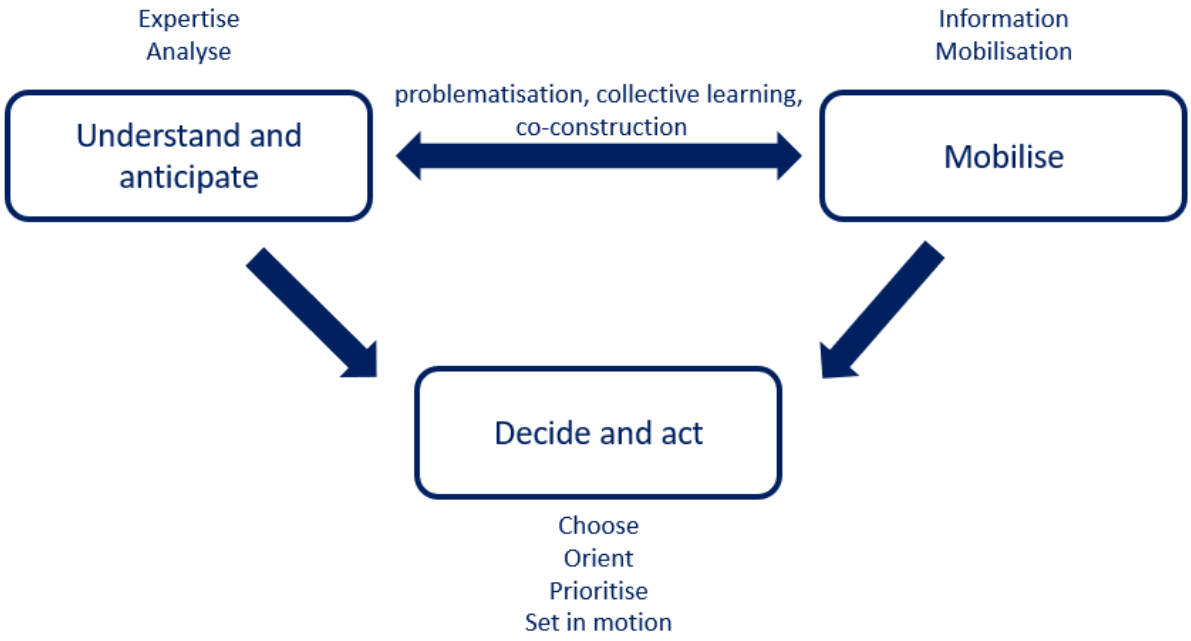


Figure 1: Strategic anticipation approach

It can be declined as follows: (i) designing the approach (Who? What? Why? How? With whom?); (ii) building the prospective base: database, study, and analysis (selecting relevant data, collecting of information and points of view, analysing and understanding the dynamics: major trends, uncertainties, emergences, hypotheses); (iii) exploring possible futures (crossing hypotheses, scenarios, and stakes); and (v) taking action (preparing for anticipated transformations (pre-activity), bringing about the desired changes (proactivity), proposing options to answer a strategic question, identifying collective projects to meet the stakes). The sequence of the different stages makes it possible to build a well-argued and coherent approach and work with all the actors involved. In practice, these different stages are not strictly sequential: the initial design phase can be reviewed and adjusted throughout the process, there can be back-and-forth between the definition of the prospective basis and the construction of scenarios.

Research agenda:

From a spatial point of view, while risk mitigation and crisis anticipation measures are based on the principle of joint actions coordinated internationally to achieve common objectives with commitments of varying intensities depending on the territories, adaptation and structural change measures do not require the same collective coordination effort. Both objectives and expected benefits are defined locally above all. However, this theme as such is still poorly taken up in local action. Several reasons can be put forward: the difficulty of deciding locally without a precise vision of the losses avoided and, therefore, of the gains directly associated with the costs of the actions to be implemented; the lack of a culture of adaptation and the difficulty in conceptualising local solutions; the temporality of the phenomena at stake which does not

correspond to that of political decision and action; and a certain wait-and-see attitude so as not to bear the costs alone. These factors must be tested based on empirical cases. Future research may also seek to identify other factors limiting/hindering local public action. Furthermore, does the level of anticipation of local authorities determine their capacity to effect structural change?

Building resilience capacities is frequently put forward as a perspective for identifying operational solutions and reducing a territory's vulnerabilities. However, the use of this systemic concept for thinking about adaptation solutions deserves to be further questioned and worked on, particularly when applied to territories (Hassink, 2010). It would deserve to be better articulated with the strategic anticipation logic necessary to implement resilient regional and urban policies.

There are several typologies aimed at classifying measures to deal with the effects of crises. These deserve to be analysed in greater depth:

- Studying the intentionality of actors in relation to crises makes it possible to distinguish between spontaneous and conscious adaptation. Intentionality can also be analysed according to the type of agent, distinguishing public actors from private agents, who do not have the same rationality;
- We can also distinguish proactive (anticipated) structural changes from reactive (rather short-term) structural changes;

The systemic transformation of territories is based on a set of choices and constraints, determined by the initial configurations and influenced by external conditions. Another line of research would therefore consist of determining the factors that can influence the capacity of a territory to anticipate and better modify its trajectory and thus cushion future risks and crises (social, economic, financial, ecological, risk exposure, etc.).

Finally, still concerning the design of public policies to better anticipate the future, it seems important to think about a conceptual framework that would make it possible to link economic diversification and entrepreneurial discovery processes. This could be done by extending the framework on a just transition (Iotzov and Gauk 2020) developed by Harrahill and Douglas (2019).

6.
A roadmap for structural change of regional economies: territorialisation of activities and ecologisation of practices

6.1. A double paradigmatic shift: territorialisation and ecologisation

Since the last quarter of the 20th century, traditional development policies have been criticised at different levels. Firstly, Wolfe (2011) has highlighted the lack of coherence and coordination between regional development policies and sectoral policies. The lack of consideration of 'place' in traditional policies has also been shown, as evidenced by works criticising the same solutions applied to similar problems in different places (Barca et al., 2012) or the “one size fits all” (Tödtling, 2010). Finally, it has also been argued that public policies often follow a top-down logic, generally ignoring integrated and/or bottom-up approaches (Wolfe, 2011; Barca et al., 2012). In response to regional development criticism based on a top-down logic, regional and national governments have gradually adopted a more complex approach taking into account local specificities.

In the light of these criticisms, recent years have seen a paradigmatic shift in public policy design by proposing greater territorialisation. The latter can be defined as the set of processes that lead to the strengthening of the links between an activity and all the territory's components. It can then be a “return to the local”, particularly in a reinforcement of the geographical proximity of actors and/or activities. If the notion of territorialisation includes an implicit “local”, it is however not limited to it: in the links between an activity and the territory, the dimensions of the territory taken into account are at the same time material, identity-based, and organisational. Thus, the link between productive systems, their actors, and their territories is built through the mobilisation and creation of many resources, which can be of various natures: economic, social, political, cultural, environmental, and landscape. Also, given these crises of various forms, structural changes will have to follow a line emphasising place-based approaches.

Territorialisation would partly involve the mobilisation or creation of natural resources in the territory, partly justifying the ‘ecological’ implicitness. Thus, territorialisation processes - which operate at different scales - have multiple links to ecologisation, both from the point of view of “cognitive and normative reframing”, the effective mobilisation of natural resources and/or of the impacts on them.

At the same time, we have witnessed another paradigmatic change: that of the greening of practices. By greening practices, we mean any action of cognitive and normative reframing - a change in the way of thinking and judging social behaviour - aiming at a more or less strong environmental inflection of the norms (legal or implicit) and social practices in force in the field under consideration (agriculture, management of sports and nature leisure activities, forestry, etc.). Greening can be based on precise environmental standards (e.g. respect for the biological rhythms of wildlife) generally supported by institutional actors, or it can be carried out more informally by more diverse actors (institutions and associations but also users, citizens, etc.) referring to plural registers (environmental ethics, scientific or activist ecology, etc.). Therefore, the processes of greening are based on various levers - sectoral policies, eco-labels, etc. - which are used to promote the development of the environment and which can also be combined. They also have a political dimension and involve power relationships, particularly political ecology, by varying points of view, temporalities, and geographical scales (Lotfus, 2019).

6.2. Between territorialisation and ecologisation : the role of the circular economy for real structural change

The circular economy, presented as an economic model that can reconcile economic growth and environmental protection, has emerged in response to the limits of our current modes of production and consumption. Recognised by public opinion, this new economic model, which is an alternative to the linear economy, is currently integrated into public policies and the socio-ecological and energy transition strategies of various countries. In the EU, the "European package" is composed of four directives that

the Member States must adopt in their respective legislation (European Commission, 2017).

In terms of local anchoring and territoriality, the challenge is to design a strategy for the systemic and transversal deployment of approaches, involving all the activities of the territory and its actors. Therefore, the circular economy must be part of a global territorial project and be the subject of processes and policies adapted to the local level. From this perspective, there is a need to contribute to the relocation of supplies, the consumption of local products, the mobilisation of territorial innovations, and their appropriation by various local actors, particularly around recovery and recycling activities. These concerns go beyond the creation of job-creating activities anchored in the territory, and also concern the contribution to the reduction of greenhouse gas emissions at a local and global level, the limitation of the waste of resources, and the capacity to make territories more attractive, competitive, and resilient through the implementation of innovations of all kinds.

By producing these positive externalities in a context of ecological transition and territorial change, the circular economy could respond to the territorial challenges of competitiveness, resilience, enhancement of specific local resources, and remobilisation of actors on issues of territorial governance (Bourdin and Torre, 2020).

From a scientific point of view, several problems remain: from what geographical distance can we still consider a territorial project of circular economy? What is the articulation between the different territorial levels? What territorial governance between the different stakeholders? What externalities are produced, and how can they be evaluated? The evaluation work consists of identifying, quantifying, and measuring a set of indicators of direct and indirect impacts of these approaches. However, there is a big gap in the availability of harmonised data on a fine scale. Their exploitation would make it possible to understand how the circular economy can be a lever for structural changes in regional economies.

7. Conclusions

In conclusion, this is truly a new form of globalisation and new ways of working that should come about in the wake of the coronavirus crisis. The coronavirus crisis has further highlighted the importance of tackling climate change and demographic change, which, if left unaddressed, could lead to a weakening of cohesion in Europe. This globalisation will have to be geared towards anticipating future risks, focusing on the long term, on a change in value chains and the organisation of companies, and in terms of a European political response. According to economists, this crisis should only be temporary. Nevertheless, it gives us many opportunities to imagine the world of tomorrow, a world with greater concerns for sustainability and precaution to be able to protect ourselves more easily from risks, hazards, and failures of all kinds that could weigh on our cities and regions in the years to come.

There are many structural projects: urban planning, housing, reducing individual motorised transport, developing short circuits, relocating activities, limiting over-consumption, reducing the use of fossil fuels, maintaining public services in remote territories, etc. However, the actual configuration of cities, roads, millions of dwellings, and individual vehicles already prevent any change of course in the short term. They imply dependencies on the initial path. Radically changing a housing stock and urban planning involves, for example, decades of work and investment. The implementation and financing of these long-term policies will depend first and foremost on our economies' capacity to finance them. Therefore, cohesion policy must play a decisive role, and the European Commission's economic recovery plan is a step in this direction.

References

Barca F., P. McCann & A. Rodríguez-Pose, (2012), « The Case for Regional Development Intervention: Place-based versus Place-neutral Approaches », Journal of regional science, 52(1), p. 134-152.

Bourdin, S., & Nadou, F. (2020). The role of a local authority as a stakeholder encouraging the development of biogas: a study on territorial intermediation. Journal of environmental management, 258, 110009.

Bourdin, S., & Torre, A. (2020). The Circular Economy as a Means of Territorialisation of the EU Industry. Symphonya. Emerging Issues in Management, (2), 33-40.

Bourdin, S., Colas, M., & Raulin, F. (2020). Understanding the problems of biogas production deployment in different regions: territorial governance matters too. Journal of Environmental Planning and Management, 63(9), 1655-1673.

Capello, R., Caragliu, A., & Fratesi, U. (2015). Spatial heterogeneity in the costs of the economic crisis in Europe: are cities sources of regional resilience?. Journal of Economic Geography, 15(5), 951-972.

Capello, R., Caragliu, A., & Fratesi, U. (2016). The costs of the economic crisis: which scenario for the European regions?. Environment and Planning C: Government and Policy, 34(1), 113-130.

Dijkstra, L., Poelman, H., & Rodríguez-Pose, A. (2020). The geography of EU discontent. Regional Studies, 54(6), 737-753.

ESPON (2018). Small and Medium-Sized Enterprises in European Regions and Cities. ESPON. www.espon.eu/sme

Giannakis, E., & Bruggeman, A. (2020). Regional disparities in economic resilience in the European Union across the urban–rural divide. Regional Studies, 54(9), 1200-1213.

Harrahill, K. and Douglas, O. 2019. 'Framework Development for "Just Transition" in Coal Producing Jurisdictions'. Energy Policy, vol. 134.

Hassink, R. (2010). Regional resilience: a promising concept to explain differences in regional economic adaptability?. Cambridge journal of regions, economy and society, 3(1), 45-58.

Iotzov, V and Gauk, M. (2020) Structural change in coal phase-out regions. ESPON. www.espon.eu/structural-change

Kashnitsky, I., De Beer, J., & Van Wissen, L. (2020). Economic convergence in ageing Europe. Tijdschrift voor economische en sociale geografie, 111(1), 28-44.

Loftus, A. (2019). Political ecology I: Where is political ecology?. Progress in Human Geography, 43(1), 172-182.

Markkanen, S., & Anger-Kraavi, A. (2019). Social impacts of climate change mitigation policies and their implications for inequality. Climate Policy, 19(7), 827-844.

Tödtling F., (2010), « Endogenous Approaches to Local and Regional », in Pike A., A. Rodríguez-Pose & J. Tomaney (eds), Handbook of Local and Regional Development, Abigdon, Routledge.

Torre, A., & Traversac, J. B. (Eds.). (2011). Territorial governance: Local development, rural areas and agrofood systems. Springer Science & Business Media.

Wolfe D.A., (2011), « Regional Resilience and Place-based Development Policy: Implications for Canada », Paper presented to the Annual Meeting of the Canadian Political Science Association, Wilfred Laurier University, Waterloo, Ontario.

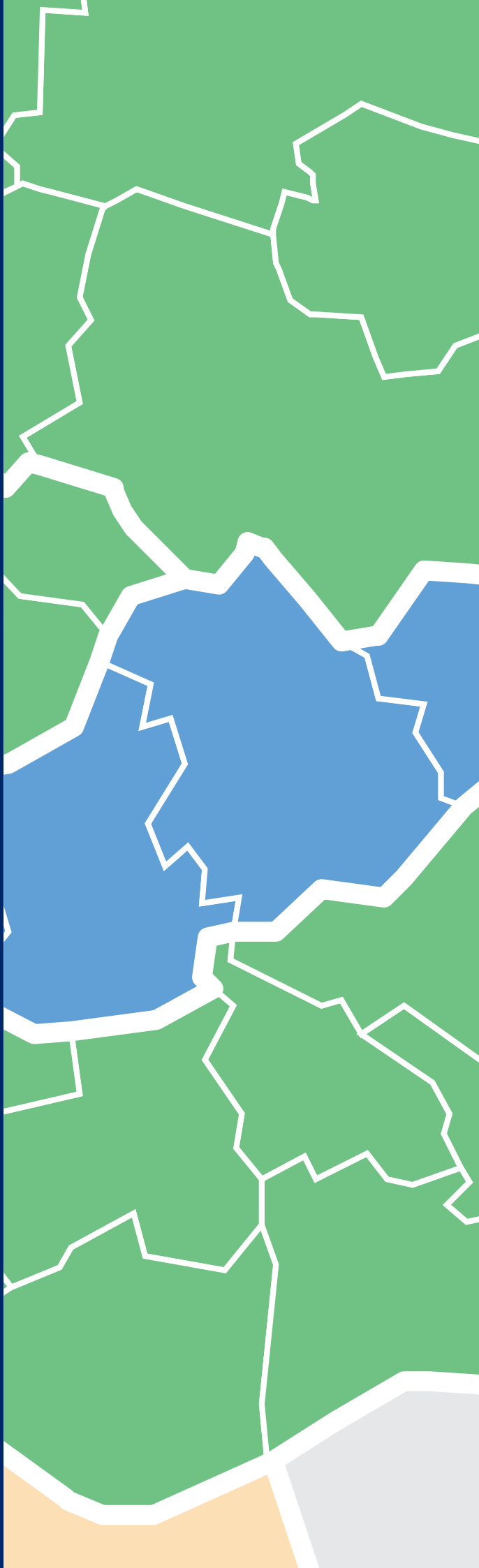
ESPON

EUROPEAN UNION

Co-financed by the European Regional Development Fund

Inspire Policy Making with Territorial Evidence

espon.eu



ESPON 2021

ESPON EGTC
4 rue Erasme, L-1468 Luxembourg
Grand Duchy of Luxembourg
Phone: +352 20 600 280
Email: info@espon.eu
www.espon.eu

The ESPON EGTC is the Single Beneficiary of the ESPON 2020 Cooperation Programme. The Single Operation within the programme is implemented by the ESPON EGTC and co-financed by the European Regional Development Fund, the EU Member States and the Partner States, Iceland, Liechtenstein, Norway and Switzerland.