

DOI: 10.5817/CZ.MUNI.P210-9896-2021-11

# A NEW ERA OF RESILIENCE: A REVIVAL OF THE TOPIC "DUE TO" THE CORONAVIRUS CRISIS. WHAT IS THE EUROPEAN UNION'S APPROACH?

Nová éra odolnosti: oživení tématu "díky" koronavirové krizi.  
Jaký je přístup Evropské unie?

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## Annotation

COVID-19 epidemic struck the world with exceptional speed, severity and breadth. Globalisation contributed to the rapid spread of this modern-day "plague" to all corners of the world. Economies have always been sensitive to certain types of shocks in the past. Today, thanks to the COVID-19 crisis, the concept of resilience is gaining prominence and the importance of the concept of resilience is growing, both in research and in economic policymaking. COVID-19 crisis shows how it has reduced the resilience of key systems to shocks and allowed failures to cascade from one system to others. A systems approach based on resilience must be proposed to prepare socio-economic systems for future shocks. The paper aims to shed a summary on the fundamental aspects of resilience in terms of theoretical concept, but especially pay attention to the current strategies oriented on resilience, with a specific focus on the European Union approach.

## Key words

coronavirus, COVID-19, European Union, pandemic, resilience, shock, strategic foresight, WEF

## Anotace

Epidemie COVID-19 zasáhla svět výjimečnou rychlostí, závažností a šířkou. Globalizace přispěla k rychlému šíření tohoto současného "moru" do všech koutů světa. Ekonomiky byly v minulosti vždy citlivé na určité druhy šoků, dnes se právě díky krizi COVID-19 dostává opětovně do popředí zájmu a narůstá na významnosti koncept odolnosti, a to jak ve výzkumu, tak při tvorbě hospodářské politiky. Krize COVID-19 ukazuje, jak se snížila odolnost klíčových systémů vůči otřesům a umožnila kaskádové selhání přecházejícího z jednoho systému na druhý. K přípravě sociálně-ekonomických systémů na budoucí otřesy je třeba navrhnout systémový přístup založený právě na konceptu odolnosti. Cílem příspěvku je stručně shrnout základní aspekty odolnosti z hlediska teoretického rámce, ale zejména věnovat pozornost současným strategiím zaměřeným na odolnost, se zvláštním důrazem na přístup Evropské unie.

## Klíčová slova

koronavirus, COVID-19, Evropská unie, pandemie, odolnost, šok, strategický výhled, WEF

**JEL classification:** B52, E32, F62, O52, P41

## 1. Introduction

Over the past few years, a new buzzword has entered academic, political and public discourse: the notion of resilience – a term invoked to describe how an entity or system responds to shocks and disturbances. The concept of resilience has become part of many studies across all disciplines over the years. Resilience thus became a link between fields, formerly distant at first glance, and pointed out the importance of monitoring all aspects of human life and society in connection with the fact that even a seemingly unimportant factor of human life may ultimately be crucial for the resilience of society. Nowadays, there are apparent changes (often exogenous in the form of

economic shock or crisis – from 2020 in the form of health shock continuing in economic crisis) in modern society, social structure, territorial policy, public administration, and other fields having an impact on the functioning and efficiency of the whole society, especially in terms of resilience and vulnerability of the economy. The combined health and economic shocks of 2020 have impacted the livelihoods of millions of households, disrupted business activities, and exposed the fault lines in today's social protection and healthcare systems. The crisis has also further accelerated the effects of the Fourth Industrial Revolution on trade, skills, digitisation, competition and employment, and highlighted the disconnect between our economic systems and societal resilience. In this moment, it is crucial to reflect on how best to return to growth and how to build back better economies that improve outcomes for people and the planet (WEF, 2020a). COVID-19 cannot be acted upon as a singular threat but as one extreme event within a crisis continuum, which poses long-term risks to human health and livelihoods, economic prosperity and planetary stability. In effect, not only is this crisis continuum predicted to create perpetual economic strain, the future value of all assets under management (pensions, taxes, public infrastructure, natural resources) is also now at risk from the converging effects of the climate emergency, health pandemics, and economic collapse. Such losses can be managed only through collective and systemic action, driven by “value”-based decision making long before they become full-blown crises (EC, 2020b).

The paper aims to analyse the consequences of the current exogenous shock in the form of COVID-19, causing the economic crisis and reviving the concept of resilience. Given the topicality of the topic and, to some extent, its novelty, the key method used in the paper is a literature review mapping contemporary sources related to the issue by relevant institutions and organisations such as the European Union/European Commission, the Organization for Economic Co-operation and Development (OECD) and the World Economic Forum (WEF).

## 2. Concept of resilience in brief

The concept of resilience has come to the fore in the last few years, not only in the academic field but also in political and public discussions. This term, used to describe how an entity or system responds to shocks and disturbances, has been explored for many years, during which an effort has been made to examine and analyse various aspects of it. Resilience as a term is commonly used in research across all disciplines from environmental analysis to materials science and engineering, ecology, psychology, sociology and economics, making it currently used in various contexts, especially in a positive sense as an attribute of an object, entity or system and more normatively as a desired element that should be somehow promoted or supported (Martin and Sunley, 2015). The concept of resilience and its very idea comes to the fore in the fields of economic geography and regional studies, mainly due to changes in recent years caused by the global economic crisis, which affected all components of the regional economy. The economies of individual countries and their regions face the challenge of being resistant to economic fluctuations, not only about changes that are dramatic and complex in terms of the length of the crisis but also concerning their impact on the socio-economic status of all countries. After the years of the 2008 economic crisis, the concept of resilience became part of regional economic studies' conceptual and analytical goal by the continuing importance of regions as an economic entity and a subject of decision-making processes in public policies. Thus, there is an increasing interest in the resilience of regional economies and local and urban economies. The field of regional resilience research is widely researched in research studies by foreign researchers (Martin, 2012; Rose, 2009; Cutter et al., 2008; Hill et al., 2008; Norris et al., 2008; Foster, 2006). In these studies, regional resilience is generally determined by how the region or system responds to shocks or disturbances and can ensure its continuous development in these circumstances. There is a presumption that thanks to the current pandemic crisis, which is currently another case of global crisis, the concept of the region's resilience will increasingly be crucial for the formulation of individual countries' economic policies. However, this pressure to use the idea of regional and local economic resilience in political circles is probably somewhat ahead of the understanding of the concept. The concept of resilience is relatively complicated and deep in content, and relatively complex for evaluation and measurement. At present, there is no generally agreed notion of resilience in the context of regional development, nor is their considerable ambiguity as to what exactly is meant by regional economic resilience and how it should be conceived. There is still no generally accepted methodology on how regional resilience should be measured, its determinants, and how it relates to long-term regional growth models. Consequently, this leads to some misunderstandings and various variations in the use of the concept of resilience. For example, Staničková (2017) offers a detailed analysis of the concept of resilience.

## 3. Coronavirus (COVID-19) as an exogenous shock

Pandemics have traditionally suffered from a panic–neglect cycle. Quiet periods see no action, early warnings of an outbreak tend to be overlooked, significant response and funding are late and uncoordinated, and valuable lessons from the crisis are not institutionalised (WEF, 2020b). More than ever, the epidemic of coronavirus infection makes the societal facts that geography questions visible through space and at all scales: worldwide, European, national, local, and even the finest one. The epidemic acts here as a powerful indicator of the

organisation of geographical space. It highlights the multiple interactions between territories at different scales. Recent decades have emphasised efficiency in the operation, management and outcomes of various economic and social systems. This was not a conscious collective choice but the response of the whole system to the incentives that individual components face. As a result, much of the world now relies on complex, nested, interconnected systems to deliver goods and services. While this has provided considerable opportunities, it has also made the systems we rely on in our daily lives (e.g., international supply chains) vulnerable to sudden and unexpected disruption (Juttner and Maklan, 2011; FAO and OECD, 2019). In complex systems, tensions exist between efficiency and resilience, the ability to anticipate, absorb, recover, and adapt to unexpected threats. Resilience focuses on specific parts of some systems, for instance, military and health systems. Still, some systemic risks result from attempts to maximise efficiency in subsystems leading to suboptimal efficiency at higher levels (OECD, 2020b).

COVID-19 crisis marked a turning point in our modern history, questioning the exposure of our economies to severe events. The first global pandemic in over 100 years, COVID-19, spread across the world at an unprecedented speed. The crisis has exposed fundamental shortcomings in pandemic preparedness, socio-economic safety nets and global cooperation. COVID-19 outbreak is the first global pandemic to be caused by a coronavirus, leading to a crisis with considerable losses in health and much of the worldwide economy, with high social costs. Governments and businesses have struggled to address compounding repercussions in workforce challenges, disruptions in essential supplies and social instability. They have had to balance health security imperatives against the economic fallout and rising societal anxieties while relying on digital infrastructure in unprecedented ways. The outbreak of COVID-19 pandemic has led to a global health crisis and deep economic recession – deeper than the downturn during the 2008–2009 financial crisis – and created a climate of profound uncertainty about the outlook. At this pivotal moment, there are growing calls for “building back better”. While the immediate priority is to respond to the health crisis, this moment in time also offers a unique opportunity to reflect on the fundamental drivers of growth and productivity that have degraded since the financial crisis. It is also a moment to determine how we may shape our economic systems in the future so that they are productive and lead to environmental sustainability and shared prosperity. This unusual moment calls for innovative and much-needed shifts in policy.

In this context, resilience can be understood as a competitive advantage in times of crisis. Being resilient means adapting to problems, rebuilding and even emerging from the experience more robust, and learning something new. Suppose resilience is defined as the positive transformation that an economy undergoes in resisting and overcoming any adversity that arises. In that case, it seems evident that, in times of crisis such as the current COVID-19 situation, it is a competitive advantage that the economies need to get. WEF published its Global Competitiveness Report as the first edition (The Global Competitiveness Report – Special Edition 2020 – How Countries are Performing on the Road to Recovery) to prompt policymakers beyond short-term growth and aim for long-run prosperity. This special edition analyses historical trends on competitiveness and the latest thinking on future priorities. It provides recommendations against three timelines: a) those priorities that emerge from the historical analysis before the health crisis; b) those priorities needed to restart the economy, beyond immediate responses to the COVID-19 crisis, while embedding people and the planet into economic policies (revival over the next 1-2 years); and c) those priorities and policies needed to reboot economic systems, in the long run, to achieve sustainable and inclusive prosperity in the future (transformation over the next 3-5 years). Recommendations and timeframes are grouped into four broad areas of action: 1) reviving and transforming the enabling environment, 2) reviving and transforming human capital, 3) reviving and transforming markets, and 4) reviving and transforming the innovation ecosystem (WEF, 2020a).

The deep economic recession triggered by COVID-19 continues to have profound economic and social consequences. Since the pandemic outbreak, unemployment rates have rapidly increased in most developing and advanced economies, and poverty rates have begun to rise again, reversing the gains achieved over the past few decades. As countries seek to recover, some of the more lasting economic, environmental, societal and technological challenges and opportunities are only beginning to become visible. While societies, governments and businesses collectively grapple with these possibilities, it is vital to anticipate the emerging risks generated by the repercussions of the pandemic.

#### 4. Response of the European Union to coronavirus

The 2020 pandemic has been a shock for all countries, and no economy has been untouched by losses both in terms of human lives and livelihoods. The European Union faces at once a pandemic and planetary emergency – as does the whole world. The systemic nature of the transformation that is needed bears significant consequences for public policy: if governments address each new crisis as it arises, with the same growth narrative and perverse incentives

that got us here, we will exceed the capacity of public institutions, crisis managers and society at large to cope, jeopardising our capacity to protect and enhance the quality of life. This is even truer for the European Union, given the complexity of its multi-level governance: the ability of institutions to protect citizens, the economy and the environment and to prepare for future crises and shocks call for a deep transformative effort, which involves all levels of government as well as the private sector. The European Commission seems increasingly aware of the need for forward-looking solutions rather than quick fixes to great emergencies. And it is aware that there is no turning back to the status quo ante, which was already far from sustainable in the long term. Citizens in many EU countries agree. Going back to pre-COVID-19 models of growth is not an option – the greater focus should be on valuing “sufficiency” and “essential job” creation.

COVID-19 crisis has exposed several vulnerabilities in the EU and its Member States. An analysis of the impacts of the crisis, beyond its terrible human toll, reveals severe disruptions across Europe’s economy and society. Preparedness and prevention, early warning systems and coordination structures were clearly under strain, thus underlining the need for more ambitious crisis management for large-scale emergencies at EU level. In the first months of the pandemic, many hospitals were overwhelmed, free movement of people and goods was severely restrained, and essential medicines and equipment were in short supply. The need to treat COVID-19 patients affected the capacity of the system to deal with non-COVID-19 patients. Simultaneously, residential care facilities and essential support services for older people and persons with disabilities were particularly challenged. Schools and universities were forced to close, many ill-prepared to offer digital learning alternatives to classrooms, particularly children from disadvantaged backgrounds or those with a disability. Overall, confinement measures have had a much more severe effect on the economy than the 2008 financial crisis.

The regional and local impact of the COVID-19 crisis is highly heterogeneous, with a strong territorial dimension that has significant consequences for crisis management and policy responses. On a sub-national scale, governments are responsible for crucial issues of containment measures, health care, social services, economic development, and public investment, putting them in the front line of crisis management (OECD, 2020c). However, previous studies dealing with a public policy against COVID-19 mainly focused on analysing and comparing policy measures on a national scale (e.g. (OECD, 2020c, European Centre for Disease Prevention and Control, 2020, Eurofund, 2020)), whilst those taken on the regional and the local scale were rather overlooked. A few exceptions include reports from OECD and UN, which have significantly advanced the knowledge on first policy answers on the regional and the local scale. These reports paid a special attention to measures taken by urban areas, considering that cities were and still are in the front lines of COVID-19 crisis (OECD on City Policy responses (OECD, 2020a); UNESCO on learning from cities’ responses to COVID-19 (UNESCO, 2020); UNITED NATIONS on a Policy Brief on COVID-19 in an Urban World (UN, 2020)), whilst regional policies have mostly been ignored. Overall, various organisations have put great emphasis on the collection of city responses to the ongoing crisis. However, systematic comparative approaches that facilitate cross-regional and cross-city policy learning have not been conducted yet. Consequently, there is still a need for an overview of the nature of local and regional policy answers across the EU and a need for a proper understanding of territorial commonalities and differences in tackling the consequences of the pandemic. In general, examining any impacts at the EU regional or local level (i.e., not national) is a significant challenge given the availability of both quantitative and qualitative data (Poledníková, 2017, Halásková and Halásková, 2016).

But what is the strategy at the highest – supranational level, i.e., the EU level? Ensuring effective recovery spending is a high-stakes challenge for the European Union, with the potential for derailment because of fuzzy objectives and overloaded procedures. The EU should work with member countries to identify limited policies that will maximise the impact of EU investment while accounting for spillovers. European Commission’s President von der Leyen’s political guidelines set a long-term strategic direction to achieve the transition towards a green, digital and fair Europe, which goes hand in hand with the current strategy. The recovery plan for Europe now shows the way forward: Next Generation EU aims to build a more resilient, sustainable, and fair Europe through large-scale financial support for investment and reforms. Strategic foresight will play a key role in helping future-proof EU policymaking by ensuring that short-term initiatives are grounded in a longer-term perspective. To make the most of its potential, this Commission has a solid mandate for strategic foresight at the heart of EU policymaking (EC, 2020a). The central theme of this first report, of the Strategic foresight 2020, is resilience, which has become a new compass for EU policies with the COVID-19 crisis. Resilience is the ability to withstand and cope with challenges and undergo transitions in a sustainable, fair, and democratic manner. Resilience is necessary in all policy areas to undergo the green and digital changes while maintaining the EU’s core purpose and integrity in a dynamic and, at times, turbulent environment. A more resilient Europe will recover faster, emerge stronger from current and future crises, and better implement the United Nations’ Sustainable Development Goals. Forward-looking policies supported by foresight will strengthen the EU’s resilience. Foresight can help anticipate developments likely to have adverse impacts to enhance resilience through structural changes.

The first annual Strategic Foresight Report outlines how foresight will inform policies to strengthen the EU's resilience in four interrelated dimensions: social and economic, geopolitical, green, and digital. It analyses the EU's resilience in response to the COVID-19 crisis in the context of the acceleration or deceleration of relevant megatrends. These long-term driving forces will likely have a large influence on the future. An analysis of the impacts of the crisis, beyond its terrible human toll, reveals severe disruptions across Europe's economy and society. The EU's vulnerabilities and resilience capacities are analysed in the light of relevant megatrends, long-term driving forces that will most likely have a significant influence on the future. Fourteen global megatrends have been identified by the Commission's Megatrends Hub (EC, 2020a):

- seven accelerating trends: diversifying inequalities, shifting health challenges, accelerating technological challenge and hyperconnectivity, changing nature of work, diversification of education and learning, increasing demographic imbalances, and changing security paradigm;
- seven neutral or decelerating trends: expanding influence of the east and south, increasing significance of migration, increasing influence of new governing systems, aggravating resource scarcity, climate change and environmental degradation, continuing urbanism, and growing consumption.

Systematic analysis of the vulnerabilities and capacities revealed by the crisis in the EU and its Member States, considering the possible acceleration or slowing down of these megatrends due to the crisis, is depicted by a four-dimensional analysis of resilience (EC, 2020a); Tab. 1 includes the only summary.

**Tab. 1: A four-dimensional analysis of resilience – the EU approach**

The social and economic dimension	The geopolitical dimension
The social and economic dimension of resilience refers to tackling economic shocks and achieving long-term structural change fairly and inclusively. It means building the social and economic conditions for a recovery geared towards the transitions, promoting social and regional cohesion, and supporting the most vulnerable in society while considering demographic trends, and in line with the European Pillar of Social Rights.	Geopolitical resilience relates to Europe bolstering its 'open strategic autonomy' and global leadership role. It is anchored in the expression of the EU's values within a highly interdependent world of competing powers, where COVID-19 has impacted geopolitical trends and power balances. As the United States turns further inwards, it leaves a void on the global stage, which other players such as China are eager to fill. In mobilising strategic resources for humanitarian and development aid and striving to make a COVID-19 vaccine and medicines available worldwide, the EU plays a leading role through its 'Team Europe' approach.
The green dimension	The digital dimension
Green resilience is about reaching climate neutrality by 2050 while mitigating and adapting to climate change, reducing pollution, and restoring the capacity of ecological systems to sustain our ability to live well within planetary boundaries. This entails eliminating our dependency on fossil fuels, reducing our impact on natural resources, preserving biodiversity, developing a clean and circular economy, achieving a toxic-free environment, changing lifestyles, production and consumption patterns, climate-proofing infrastructure, creating new opportunities for healthy living, green business and jobs, actively pursuing ecosystem restoration, as well as saving our seas and oceans.	Digital resilience is about ensuring that the way we live, work, learn, interact, and think in this digital age preserves and enhances human dignity, freedom, equality, security, democracy, and other European fundamental rights and values. This is increasingly important as hyperconnectivity continues to accelerate, with physical-digital integration, the Internet of Things, smart home technology, the use of big data, augmented and virtual reality, machine learning, and other increasingly capable Artificial Intelligence technologies. Digital technologies blur the distinction between the physical and virtual world, and between humans, machines, and nature, with implications for our selves and the policy frameworks. They have been instrumental in keeping our economies and societies running during the pandemic.

Source: EC, 2020a

As resilience becomes a new compass for EU policymaking, proper monitoring tools are required. This new focus on resilience calls for close monitoring in the form of the move towards resilience dashboards, which, once fully developed in cooperation with the Member States and other key stakeholders, should be used for assessing the vulnerabilities and capacities of the EU and its Member States in each of the four dimensions. Such analysis can help answer the question: are we, through our policies and recovery strategy, effectively making the EU more resilient?

The EU must ensure that, together with the scientific and expert community, the EU direct investment towards enhanced protection from the adverse impacts of social, economic and environmental shocks; better preparation to face emerging large-scale risks, and deep transformation to be able to reconcile sustainability with resilience in the future. This "protect-prepare-transform" approach ultimately implies optimising innovation in an integrated

fashion, focusing on a transition that is just and embodies new social, green, and digital pathways altogether. With its collaborative and inclusive approach to innovation, Europe is well equipped to respond to this emergency but will have to do it coherently and ambitiously (EC, 2020b). In line with this, in Tab. 2, the group on the Economic and Societal Impact of Research and Innovation (ESIR) experts' recommendations to this end. The key recommendations reflect ESIR's view that the COVID-19 fiscal stimulus should be combined with the European Green Deal package and public policy across the board to craft an equitable, secure and sustainable system, fit for purpose in a digital age, to ensure that the EU and its governments are better protected, more prepared and deeply transformed, to respond to the citizens' needs and aspirations.

**Tab. 2: ESIR key recommendations**

INTERNALISE LESSONS AND RISKS	
1.	Take stock of the COVID 19 crisis to help the EU “rewrite the future” through an improved understanding of the responses to the crisis.
2.	Draw lessons from the policy responses of local and national governments and operationalise them into short- and long-term R&I actions.
3.	Step up horizon-scanning and foresight and consider setting up a centre to anticipate large-scale risks to ensure robust risk assessment and management.
4.	Better develop targeted R&I solutions for crisis situations through a “European Crisis Map”.
5.	Develop rapid response capabilities to organise and distribute public data in emergencies.
INVEST FOR THE FUTURE	
6.	Promote coherent, resilience-enhancing investments at all levels of government through more coordinated European and national R&I actions.
7.	Protecting jobs should not equate to bailing out companies without conditions.
8.	Increase public R&I investments within the EU and Member States' budgets as a crucial response to the crisis.
9.	Direct public and private resources to finance systems innovation through a commitment between the EU's various funding instruments and the private investment community.
10.	Pursue reforms to safeguard knowledge-intensive companies.
INNOVATE WITH and FOR THE PEOPLE	
11.	In partnership with citizens, the European Commission should initiate the co-creation of a common 2050 sustainability vision.
12.	Ensure that citizen engagement and social dialogue through R&I addresses citizens' calls and protests for more collaborative and participatory governance structures.
13.	Implement Horizon Europe in a way that facilitates on-the-ground experimentation.
14.	Optimise digitalisation and Artificial Intelligence for people.
15.	Foster resilient cities and rural communities through new models of safety nets and creative procurement policies.

Source: EC, 2020b

Key to this are core tenets of liberal democracy – freedom, choice, collective responsibility for the respect of rights – and acknowledgement of the critical importance of meaningful work for every citizen in order to build emotional and social resilience and wellbeing. Europe has world-leading examples of collaborative governance, cooperative industries, top-class science and innovation and competitiveness achieved through solidarity. COVID-19 recovery policies would do well to draw upon them to provide guidelines and lessons learned for others. It is therefore imperative that the post-COVID-19 stimulus programmes are addressed as one single and systemic investment programme with clear enabling conditions fostering jobs, especially green jobs, new capabilities and well-being for all across society. This will also be a unique opportunity for the EU and its Member States to strengthen their policy coherence towards resilience and sustainability.

## 5. Conclusion

Resilience refers to the ability to withstand and cope with challenges and transform in a sustainable, fair, and democratic manner. Considering COVID-19 crisis and the transition-led political agenda, Europe needs to further strengthen its resilience and bounce forward, i.e., recover but emerge stronger by intensifying these transitions. Now, national governments are struggling to absorb the shock generated by the pandemic, but in time the international community will overcome the crisis and begin the recovery phase. In the longer term, an approach that reacts to the systemic origins and impacts of major shocks is needed if policies are to be effective.

COVID-19 pandemic has shown just how important it is to have resilient systems in place to manage unexpected shocks. The systemic nature of risk with multi-sectoral impacts, and its cascading effects where one disaster can rapidly lead to another, demonstrate how complex and deadly disaster risks have become. In COVID-19, a biological hazard revealed the precarious systems upon which trade, food, energy, transportation, and social safety nets rely. To tackle the current and future emergencies, there is a critical need to apply a multi-hazard lens

to increase resilience at all levels to strengthen health systems and develop strategies that address an extensive range of hazards and socio-economic factors.

The EU needs to draw lessons from the pandemic, anticipate future developments, and strike the right balance between the wellbeing of current and future generations. Creating greater resilience by design, not by disaster, should be at the core of a coordinated EU recovery response to the COVID-19 outbreak. During a global health emergency and imminent economic recession, an integrated “people, planet and prosperity” recovery model and a concerted investment in research and innovation-led transformation will enable us to emerge from this pandemic more resilient as a region, as countries and as localities. The EU must ensure that, together with the scientific and expert community, we direct investment towards enhanced protection from the adverse impacts of social, economic, and environmental shocks; better preparation to face emerging large-scale risks; and deep transformation to be able to reconcile sustainability with resilience in the future. Investing in resilience will be crucial to ensure that the EU is never again devastated by a disaster.

The uneven circulation of COVID-19 across the European regions raised immediate geographic questions regarding the pandemic’s socio-economic, environmental, financial and demographic dimensions. The effects of the coronavirus crisis at the national level are known; it will take some time to understand the regional effects (given the delays in the reported data). Why were some areas hit harder than others? How could regional variations be explained? Is it possible to identify links between the spread of the disease and territorial characteristics likely to influence it? These are the questions for further research-oriented on the regional impacts of the current crisis.

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