Place-based policies of the European Union: contrasts and similarities to the US experience*

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Abstract

The European place-based policy framework was established in the European Treaties and has a current budget of $60-70 billion per year. This paper identifies key features and directions for its future development with respect to three place-based problems: traditionally lagging regions; contemporary distressed (or left-behind regions), including those facing the structural challenges of the energy transition; the challenge of spreading prosperity faced with the uneven geography of technological clusters and routine technology-based manufacturing. We analyze the place-based features of EU Cohesion Policy, its commonalities and differences with place-based policies in the US. We evaluate policies against a structural backdrop of long-term convergence in the two continents and the contemporary geography of spatial divergence, using both historical perspectives and recent policy evaluation evidence. Key differences are identified in policy programming, implementation, budgeting and time horizons. While there has been evidence of policy success in both continents, there are also serious impediments to effective implementation in both. These limits have to do with how well policy is designed with respect to economic geography fundamentals as well as political economy and organizational problems in policy design, implementation and governance. The paper concludes by drawing some general lessons on the design of place based policies and examines some of the issues that are particularly relevant for Europe.

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1 Introduction: place-based policies in the context of long-term spatial integration and shocks to spatial allocation

From its inception, the European Union has been centrally concerned with place-based development. Indeed, one of the principal original justifications for creating the institutions that would become the European Union (EU) was to achieve continent-wide economic integration, through the free movement of goods and people and the institutional and legal completion of a single European market. It was recognized from the beginning that even in its original member countries of north-western Europe, there was an inherited landscape including some long-standing lagging regions. This was reflected in the Treaty of Rome through a commitment to reduce disparities between regions, although it was only in the 1970s that the EU started developing corresponding budgetary instruments. The ensemble of EU place-based policies known collectively as the Cohesion Policy framework emerged in the early 1990s following EU membership of Spain, Portugal and Greece and the launch of the Single Market and the preparation for monetary union. Subsequently, the addition of many new Member States after the fall of the Soviet Union presented the EU with the challenge of integrating countries with much lower income levels than the previous members. Since then, the changes promoted by economic integration - including greater firm-level economies of scale, increasing regional specialization and urban scale premiums, and both intra- and inter-country labor sorting - have had uneven geographical effects and promoted new forms of spatial inequality. In addition to these changes, the world economy has gone through two major geographical shocks since 1980: the strong agglomeration forces of the Third Industrial Revolution, and the negative shocks to many formerly prosperous regions from globalization and automation. By "Third Industrial Revolution" we mean the rise of new information and communication technology sectors, as well as the growth of science-based and finance sectors as the key propulsive skill-based sectors of the post-1980 economy.

Over time Cohesion Policy (CP) has become the main EU budgetary framework for promoting long-term convergence in the face of stronger integration, attempting to reduce inherited spatial inequalities, and actively countering certain spatial inequalities generated by the geography of the Third Industrial Revolution and the green transition. In this paper, we will discuss the overall process for making and implementing CP, and we will review three major programmatic efforts with respect to three substantive place-based problems: supporting catching-up in long-term lagging regions; attempting to generate resilience in areas that have become distressed following major economic and industrial shocks or are at risk of becoming distressed, now also including territorial strategies to support adjustment in the context of the energy and climate transition; and spreading the technology-based prosperity of the Third Industrial Revolution which has created a significant innovation divide in Europe. CP does its work through four principal instruments: the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the Just Transition Fund.

We will bring in elements of comparison between the US federal place-based policies and those of the EU, but the comparison will be asymmetrical, with the paper concentrating on the EU. To begin with, in Section 2 we frame the challenges both continents face by highlighting the broadly similar long-term fundamentals of the US and EU economic geographies, while also underscoring important differences in their underlying geographical allocation forces. This context influences policy formation in the two areas, with some overlap and some important differences. In Section 3, we describe the EU place-based policy-making and implementation process in detail, with US contrasts highlighted. In Section 4, we analyze each of the three major areas of policy effort and assess their effectiveness. Section 5 then outlines some challenges that are shared by both EU and US place-based policy, with the European versions of those challenges detailed. The paper finishes by drawing some general lessons on the design of place based policies and examines some of the issues that are particularly relevant for Europe.

In general, we find that EU policy to enhance long-term convergence has had broadly positive effects, and that the EU is doing better than the US at aiding its distressed regions. In both the US and Europe, however, there has been limited success in encouraging convergence in a group of long-term lagging regions. The EU is taking a much more forward-looking and comprehensive approach than the US to the place-based effects of climate change and to supporting a just transition away from fossil fuels. In both the US and the EU, there is considerable effort to spread the high-tech clusters, regional innovation systems, and high-tech manufacturing that are potential sources of local growth and prosperity. In this area, the EU has significant lags compared to the US, but is actively engaged in trying to upgrade its technological performance. Cutting across the substantive policy area in both continents, there are some common challenges to successful policy implementation; these consist of excessive complexity, principal agent problems, and need for better ways of setting priorities and assessing whether policy can reshape spatial economic fundamentals in a positive and durable manner.

2 Long-term fundamentals: processes of convergence, post-1980 agglomeration shocks, social welfare states, and innovation lags

Even though both Europe and the US face many similar problems of spatially-uneven development and economic performance, there are important differences in long-term spatial-economic fundamentals, growth dynamics, and social welfare systems that shape the European approach to place-based development.

2.1 EU convergence efforts versus US achieved convergence

Integration and the reduction of regional disparities are explicit policy goals embedded in the EU Treaties. European integration and the ongoing completion of the single market can be thought of in light of American inter-state income convergence in the 1945-1970 Sunbelt period, a period during which the US fully integrated its national market space. Unlike the US, the EU is an economic entity that is still working to achieve a single market, all the while integrating new Member States. Thus, while inter-state per capita income differences in the US have been reduced to an order of 1:1.5, in Europe the gap between the poorest Member States and the highest income is about 1:2.2; since the 1970s the EU has enlarged from six Members to twenty-eight (and then twenty-seven). Ukraine, Moldova and six relatively low-income countries in the Western Balkans are now candidates for membership. Moreover, because the larger and more dynamic sub-national (mostly large metropolitan) regions of Member States are favored by the continental single market, and those regions are unevenly distributed within and between Member States, integration can inadvertently drive divergence between Member States (Petrakos et al. (2005); Kramar (2015)).

Notwithstanding these challenges, according to the World Bank, since its foundation more than 60 years ago, the EU has become the world's greatest "convergence machine," propelling poorer, and newer, Member States to transition to being high-income economies, and delivering to its citizens some of the highest living standards and lowest levels of income inequality in the world (Gill et al. (2012); World Bank (2018a)). The average GDP per capita in the Member States that joined the EU since 2004 has seen an increase in GDP from about half of the EU average in 2004 to nearly 80 per cent in 2023 (Figures 1, 2). This upward convergence has been driven by an increase in productivity in less developed regions, and has also enabled tangible social progress, for instance in terms of better health outcomes, and reductions in unemployment and poverty rates across almost all regions over the last ten years.

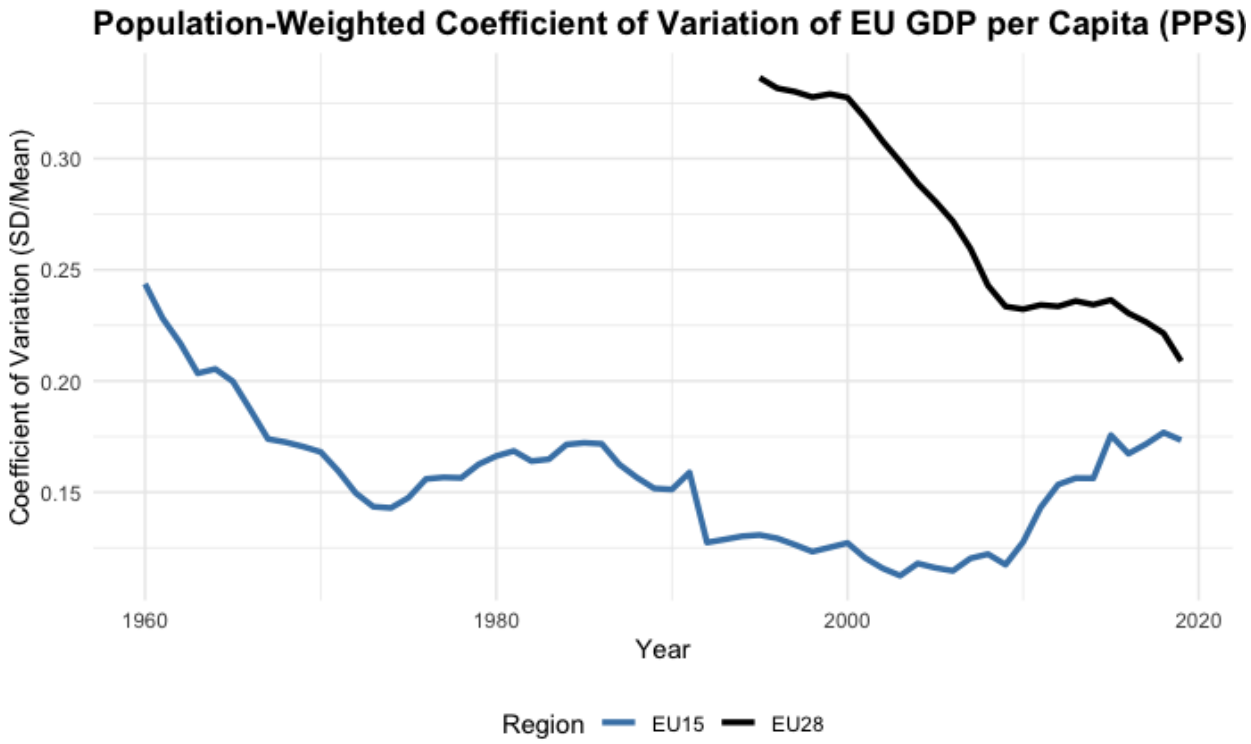


Figure 1: Member State convergence in the European Union, adapted from Bisciari et al. (2020) using EC Ameco.

In the post-war period, Europe's original member states enjoyed intra-member-state convergence in the same period (the "trente glorieuses annees") but did not have the US's conditions for inter-state convergence. European integration has in more recent years accompanied a strong catch-up convergence process between Member States driven by fast rates of growth in the Member States that joined the EU since 2004. Growth has been much slower in poorer regions in the South of Europe which were strongly affected by collapse in investment following the 2008 economic and financial crisis, although growth rates have accelerated significantly in Spain, Portugal and Greece in the last 3 years. Figure 2 illustrates the growth of real GDP per head in regions across the EU in the period 2000-2023 and compares these rates with the EU and US averages.

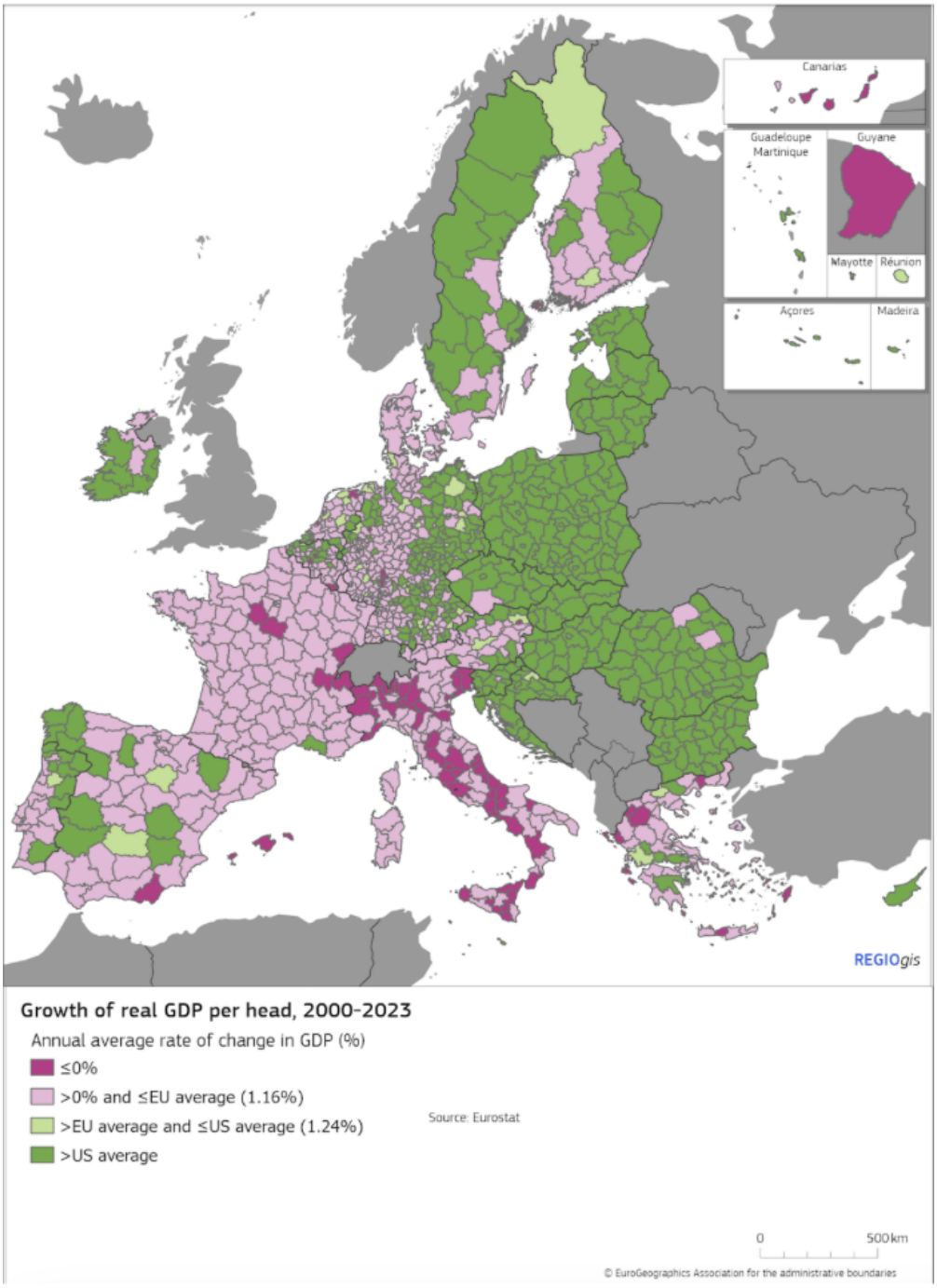


Figure 2: Average annual growth of real GDP per head 2000-2003 in the EU (European Commission).

The evolution of incomes in Europe today resembles somewhat what occurred in the American South in the post-1945 period; notably as regards the catch-up trend in Eastern European Member States that, at least superficially, mirrors the US Sunbelt experience in

the post-war period. However, European convergence is occurring in the context of a big bang (Single Market Act) coupled to a comprehensive policy with economic convergence as an explicit goal. By contrast, while (especially since the New Deal) there have been major federal infrastructure and federal investment (defense procurement, R&D) that promoted convergence, there has rarely if ever been explicit federal convergence policy.[1] Despite this there is, in effect, a US national commitment to integration: the US Constitution contains a Commerce Clause that prohibits the states from any measures that would limit free trade and movement between the states of the US.[2]

The US is an interesting historical case for shedding light on challenges to contemporary European convergence efforts because certain long-term fundamentals of the American economy are different from those of Europe. Historically (and especially 1880-1980, following the end of the western frontier Indian Wars) American integration was facilitated by high levels of long-distance population sorting. Those historically high levels peaked in 1980 (Ganong and Shoag (2017)). Europe has never had those levels. In addition, in the US after 1945 there was an epochal redistribution of American population South and West – the Sunbelt – involving the diffusion of high levels of urban development to the entire country, coupled to expansion of national over regional product markets and supply chains, underpinned by infrastructural improvements to lower trade and transport costs.

Contributing to this process, starting during WWII and then in the 1950s, there were many US federal investments such as NASA's space program centers in Florida, Texas and Alabama. These strengthened integration by generating a higher skills base in the generally unskilled South, creating certain local pockets of high-skill development (Hooks and Getz (1998);Gross and Sampat (2023)). By the 1960s, many of these initial conditions had come together into a powerful set of attractors of employers and households to certain regions of the South.[3]

For the American case, there is a rich debate over whether the diffusion of development from the Frostbelt to the Sunbelt was initially unleashed by "jobs moving to people,

with people moving first," or "people moving to jobs, with jobs moving first." The classic Roback-Rosen-Glaeser-Tobio papers argue that households started massively moving to the South in search of sunny climates, cheaper housing and a sprawling suburban lifestyle, or what they call amenities-driven migration (Glaeser and Tobio (2007)). But the sequence of causality is just as plausibly the opposite (Muth (1971). In support of the latter view, in 1947 the US Congress published Why Industry Moves South, responding to the beginnings of a tidal wave of relocation of manufacturing from the North to the South (McLaughlin and Robock (1949)).[4]This was well before the beginnings of the Interstate Highway System, the widespread use of air conditioning, or suburban development of the South, the factors that are said in the amenity-driven model to have set off Sunbelt development. In this alternative view of causality, the main process that set off Southern development and upward convergence, was the movement of private sector jobs to the South, mostly in manufacturing, and mirrored by nascent deindustrialization of the North starting in the 1940s, pushing migrants out of the Northeast and Midwest. Subsequently, the process became self-reinforcing as the tradable sector's incomes generated a growing non-tradable sector in services and land development.

In addition, California is sometimes confusingly included in the category of Sunbelt, in that it contributed to the aforementioned dispersion of population, urbanization and incomes of the US. But California followed a different development process from the Southern and inner Southwestern Sunbelt. California took the "high road," generated not by employers looking for lower wages and land costs, but by massive investments in R&D and education, coupled to an in-migrant population that tended to be wealthier and more educated than the country in the first place; and culminating in the creation of a wide variety of cutting-edge innovative clusters (Ceh and Gatrell (2006)).[5] There is no California equivalent in the expanding Member States of Europe that could contribute to spatial diffusion and convergence of income and activity as the West Coast did in the US (section 4).

Another way to frame the comparison of long-term European and American integration-

convergence experiences is to consider earlier efforts at convergence within Member States, which have been integrated economic areas for a longer period than the EU. For example, in 1947, Jean-Francois Gravier called for a policy to combat unbalanced regional development in France due to the concentration of income and activity in the Paris region. His call to arms was entitled "Paris and the French Desert" (Gravier (1947)). Decades of policy effort followed, including both activist indicative planning and deliberate infrastructure policy, under the aegis of a national spatio-economic indicative planning agency (Commissariat General au Plan (Cohen (1969))). In 1947, the Paris region accounted for about 22 per cent of the French population and 33 per cent of output; and yet those figures are largely unchanged today. Italian integration in the post-war period was accompanied by activist policy to spread the wealth to the poorer southern third of the country (Cassa per il Mezzogiorno). But north-south convergence never occurred in Italy. Despite enduring regional divides in the UK, which prompted experiments with industrial relocation subsidies in the post-war period and many subsequent policies, Greater London remains as dominant as ever in the British economy - an imbalance reflected in the ongoing calls to 'level up' the North (Fransham et al. (2023)).

Comparing integration and convergence experiences is highly sensitive to scale. It could be argued that within the most urbanized US states, there are significant differences in income across regions. Nonetheless, if we combine the view from across Europe and within its Member States, we see little that alters fundamental long-term spatial allocations in the way that the American experience of Sunbelt and California development did in the US. A possible implication is that the geographical responsiveness of the European and the US economies to changes in structural forces may be fundamentally different. It is with this in mind that EU efforts at convergence are considered to be essential, but these efforts rely less on promoting large-scale population redistribution than was the case in the historical US experience. Instead, they center on spreading the fundamentals of productivity improvements to support catch-up development, including infrastructure, capital mobility,

education, entrepreneurship and modernization of governance.

In spite of these differences of context, the EU and the US share a similar stubborn gap in their convergence processes. Both are dotted with certain traditionally lagging regions. In the US, these are low-income regions in the most rural parts of the South, as well as other historically lagging and remote regions such as Appalachia, the Tennessee Valley or the Upper Great Lakes. In Europe, some regions such as parts of the Italian Mezzogiorno have long been resistant to full catch-up convergence, in spite of sustained, large-scale policy efforts on their behalf.

2.2 The Economic Geography of the post 1980 post-manufacturing economy: place-based challenges in an era of spatial economic divergence

Long-term convergence processes in both the US and the EU experienced significant and similar shocks to their economies, with important geographical effects. From about 1980 onward, a post-manufacturing economy, vernacularly known as the Third Industrial Revolution, has had strong income polarizing effects, interpersonally and inter-regionally (Kemeny and Storper (2023)). This shock was complemented by an offshoring shock from globalization, especially the China Syndrome after 2000, which unevenly affected regions (Autor et al. (2013)).

These shocks have played out across the landscapes of both the US and Europe. In the US, they correspond to the end of inter-state convergence. In both Europe and the US, spatial-economic divergence has increased since 1980 at national level and is observable at commuting zones (CZs), NUTS3 regions, and travel to work areas (TTWAs) (Figures 3, 4). In the EU the picture is more complex, falling disparities at NUTS3 level for the EU have been combined with increasing disparities at national level in fast growing Member States. However, within some Member States disparities at national level have been falling

(European Commission (2024b)).

A key driver of such divergence, in both continents, is occupational-wage polarization of the Third Industrial Revolution, coupled to agglomeration of skilled work and the growth of urban wage premiums for the skilled. In both continents, there is significant draining of youth and talent to cities in general and large, skilled metro regions in particular. Large metros offer not only rising skilled wage premiums but also increasing amenities and experience-based careers (De La Roca and Puga (2017)). In the US, though there has been a significant overall decline in long-distance migration from the 1880-1980 period, (e.g. Ganong and Shoag (2017); Ferrie and Hatton (2015)), today's migration has become much more distinctly skill-directional, with the college educated moving up the hierarchy, and the non-college down it. Figures 5 and 6 show the same for the European context which group regions by total population change rates 2014-2020.

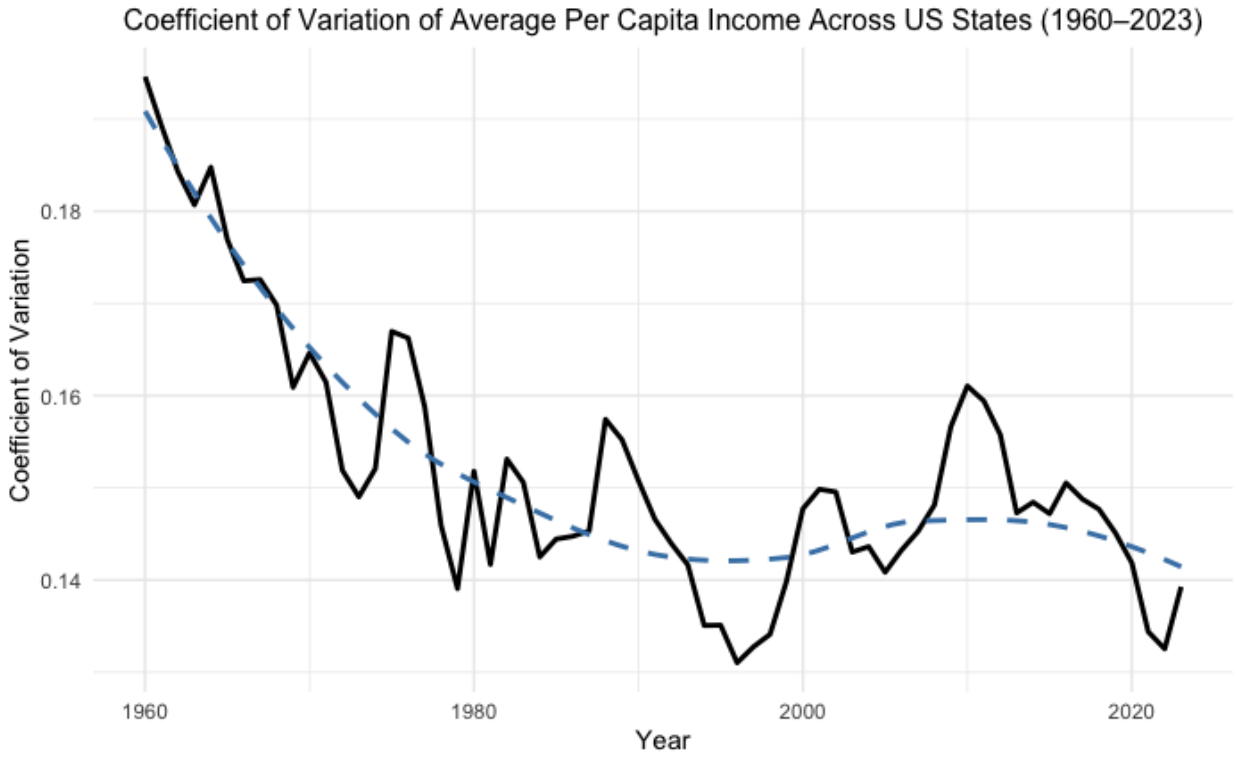


Figure 3: The end of regional convergence in the US 1960-2023, adapted from Martin (2021) using BEA Regional Data.

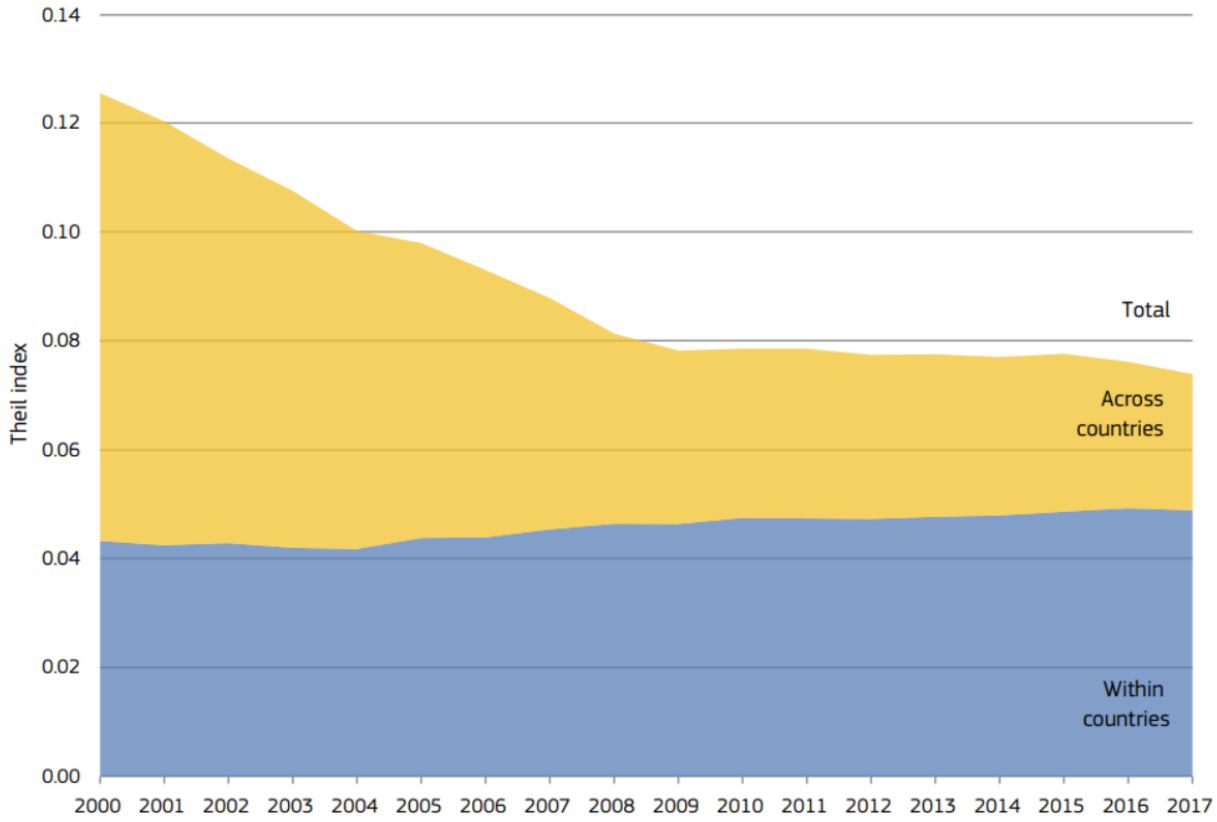


Figure 4: Theil index, GDP per head, NUTS 3 regions (Monfort (2020)).

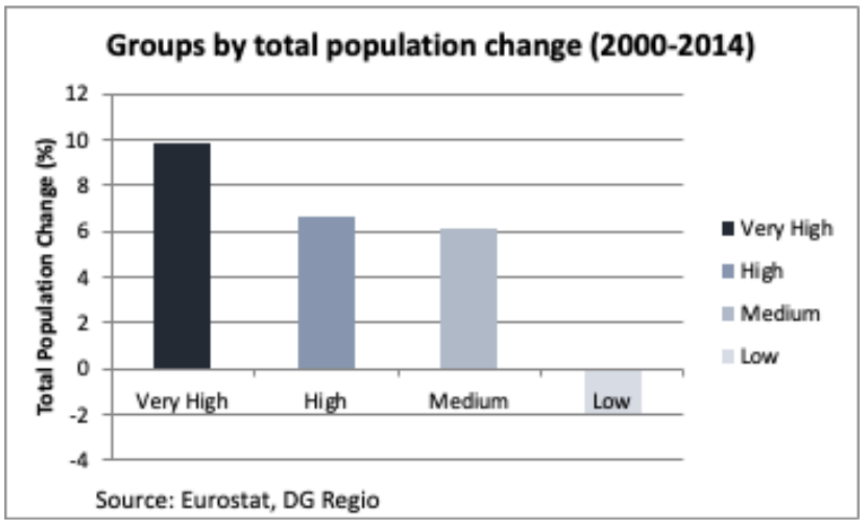


Figure 5: Population change by growth group in European regions, 2000-2014 (European Commission).

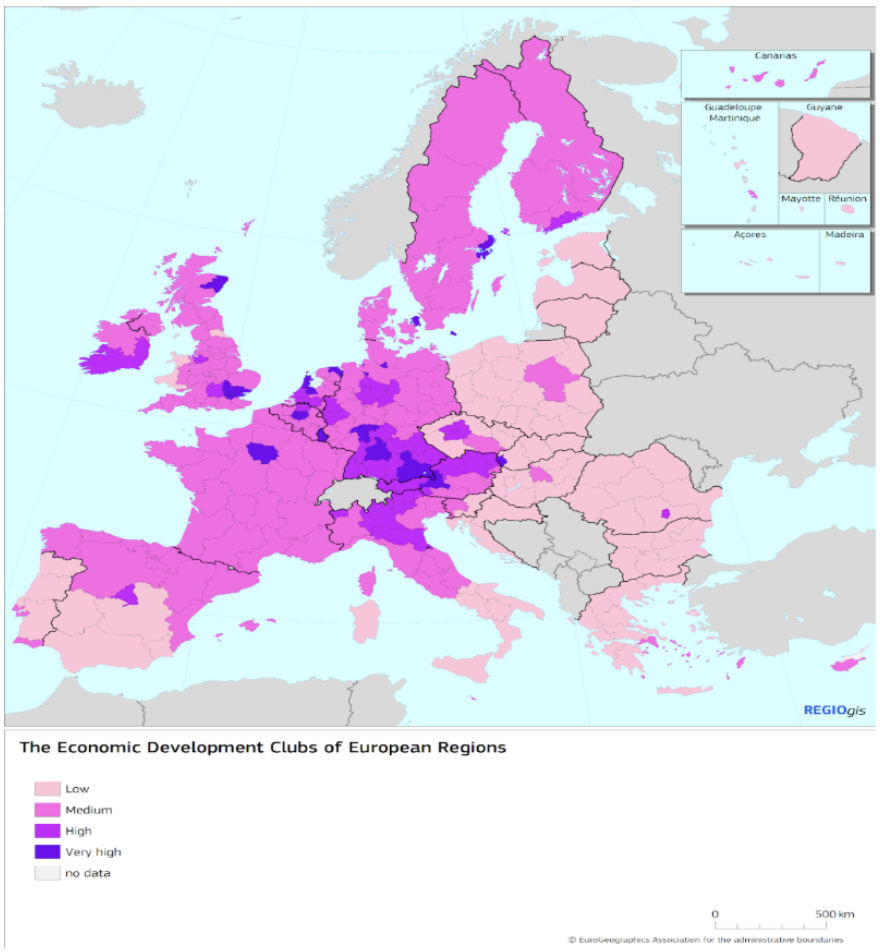


Figure 6: Economic development levels across European regions (European Commission).

Almost all of the aggregate divergence in both the EU and the US comes from the best performing metro regions; for example, 25 commuting zones out of 722 in the US now concentrate 32 per cent of the population and 42 per cent of economic output (Kemeny and Storper (2023)). These regions are unevenly allocated across US states, and states have different urbanization levels. In Europe, this issue is further compounded in many distressed and lagging regions by a sharp decline in the working age population, a low share of people with a tertiary education and a significant outflow of young people (European Commission (2023)). For Europe, the US offers an example of a pattern of spatial-economic development that further European integration is expected to strengthen and hence can be seen as a challenge for European commitments to balanced spatial development and convergence.

2.3 Innovation, growth and the interpersonal inequality in the US versus Europe

Compared to Europe the US has a more innovative economy with higher long-term growth in incomes, but the US is also characterized by higher interpersonal income inequality and higher spatial inequality, in the sense that its urban income and wage premiums are higher than those in Europe. Conversely, Europe is characterized by lower levels of interpersonal inequality, but lower growth and innovation (Chancel et al. (2023)).

Even though some parts of Europe have hourly labor productivity that equals that of the US, this tends to be in legacy industries that are highly-automated and hence poor in generating new employment. The US economy has high labor productivity due to scale in both new and old industries. But it also displays higher labor force participation, and more working time than in Europe. Their growth models are thus quite different (International Monetary Fund (2024)).

The role of the cutting edge innovation sector in contemporary economic growth has many dimensions, of which two stand out. The first is to generate innovation rents that then circulate through the economic system in many ways. The second is that the successful innovation sector is itself a major direct source of high-wage employment. Europe has significant weaknesses in both when compared to the US, and increasingly to China. In September 2024, the Draghi Report to the EU noted that "only four of the world's top tech companies are European and that Europe's share of global technological revenues dropped from 22 per cent to 18 per cent between 2013 and 2023, while the US share rose from 30 per cent to 38 per cent." On the ground, the EU has numerous innovation clusters, but they are smaller than those in the US and China (Draghi (2024)). Innovation in Europe remains dominated by mid-tech and legacy industries, such automobiles. Stated differently, EU innovations tend to be more gradualist and incremental and less fundamental or general-purpose than in the US, and hence their innovation rents are much smaller. Such sectors do not have the same R&D intensity as high-tech businesses (Fuest et al. (2024)). Although EU policy

has tried to increase scale, reduce redundancy, and improve the novelty of EU innovation, innovation activities remain highly fragmented and technology diffusion remains strongly national.[6] The key innovation challenge for Europe is to unlock productivity gains through (i) disruptive innovation brought about by new, dynamic start-ups challenging incumbents and (ii) efficiency gains by spreading new technologies through mature traditional industries (European Commission (2025)).

These differences in the innovation sector are also reflected in, and perhaps partially caused by, differences in the geographies of high-technology and innovation between the EU and the US. Differences in the geography of innovation broadly mirror differences in the geography of urbanization: the US tech sector is more concentrated in a smaller number of larger tech agglomerations that are more specialized than their European counterparts; the differential performance of the EU innovation sector may be related to such geographical differences in matching of resources, as well as wider institutional and financial differences (Crescenzi et al. (2007)).

Tying these differences in growth dynamics together in terms of the place-based policy agenda, in Europe the overall challenge is to reduce inter-place inequality, while raising growth contributions of as many places as possible, and stimulating Europe's innovation sector. These objectives do not align neatly, as some may require greater regional scale and specialization, and others would ideally spread activity, innovation and retain population.

There is another difference in US vs EU economic fundamentals that affects the purposes and nature of place-based policies. While Europe's growth and innovation are lower than the US, Europe has lower levels of average interpersonal income inequality. The lower levels of such inequality are only in part due to more comprehensive social welfare states. Recent work suggests that it is pre-tax distribution of income that largely explains lower levels of income inequality in the EU compared to the US, reflecting public investment in health and education, as well as labor market institutions and regulations, but the analysis also implies that Europe's lower levels of inequality are partly due to its weaker innovation sector

(Blanchet et al. (2022)). There is concern in Europe that attaining higher levels of innovation would bring higher concentration of rents and wages, given that most European societies have relatively low historical tolerance for the high inter-personal and territorial inequality-enhancing effects of the US innovation economy. Such higher interpersonal inequalities would have strong territorial effects in Europe, collateral damage that policy is not equipped to deal with. Thus, many in Europe would like to achieve the growth and incomes of the US without experiencing the spatial and interpersonal distributional and market concentration effects that are observed in the American case.

With this context of historical, economic, geographical and political conditions in mind, in the next section we turn to the overall design and management of the EU place-based policy framework, with contrasts to the US highlighted.

3 The EU and US place-based policy frameworks compared

The EU and the US both have long histories of place-based policies. The EU has pursued a formalized and centrally coordinated place-based policy framework through CP that has evolved in concert with key institutional changes in the nature of the EU. Recognising increasing economic disparities, the EU established the European Regional Development Fund in 1975 to assist underdeveloped regions. This was the first step towards the development of comprehensive policy for cohesion at European level. The Single European Act in 1986 and the subsequent Single European Act formally introduced the concept of economic and social cohesion explicitly to address regional inequalities linked to integration in the Single Market and led to the integration of the European Social Fund, which targeted employment and labour mobility, into the Cohesion policy framework. The Treaty on European Union (Maastricht Treaty) established the objectives for Cohesion Policy and the Cohesion Fund. 'Agenda 2000' in 1999 expanded the budget to address enlargement to Central and Eastern

Europe and disparities generated by the Economic and Monetary Union. Over the following years, the policy would become increasingly aligned with key EU priorities.

3.1 The principal inputs to EU place-based policy

There are four main programmatic funds that make up the bulk of EU place-based policy:

- Established in 1973, the European Regional Development Fund (ERDF) supports regions whose development is lagging behind and regions with structural problems (distressed regions). It primarily finances investments aimed at strengthening the competitiveness of SMEs, innovation, digitization, energy efficiency, environment, energy, climate and education and social infrastructure. It thus encompasses a wide variety of programs aimed at stimulating innovation and spreading it. It has a strong place based logic and is closely linked to regional, urban and distressed area policies in Member States.

- Established in 1957, the European Social Fund's (ESF) main goal is to improve employment opportunities, to increase geographical and occupational mobility within the Union, and to facilitate adaptation to industrial change and to changes in production systems, including fostering social integration and combating discrimination. It covers a wide range of employment and social inclusion objectives. It is generally implemented through a range of national schemes and "people in places" policies, targeting specific areas and social groups.

- Established in 1995, the Cohesion Fund provides support exclusively for environmental goals and to Trans-European Transport Networks. It is restricted to EU countries whose per capita income is below 90 per cent of the EU average and operates at the national level. In this respect, it operates mainly to promote national convergence and integration in the EU single market.

- Established in 2021, the Just Transition Fund's objective is to help regions and people to address the social, employment, economic and environmental impacts of the transition towards the Union's 2030 targets for energy and climate and a climate-neutral economy of the Union by 2050. It supports all types of investment and is strongly geographically targeted.

For the 2021-2027 period approximately 59 per cent of the budget is allocated to the ERDF, 29 per cent to the ESF, 9 per cent to the Cohesion Fund and 5 per cent to the JTF.

3.2 Evolution of priorities in the EU

Throughout the development of place-based policy, Europe has prominently pursued the overarching objective of balanced spatial development in its declared public goals. In contrast, place-based initiatives in the US have tended to be more fragmented and ad hoc, driven by specific federal programs, state-led efforts or local priorities rather than a unifying strategic framework.

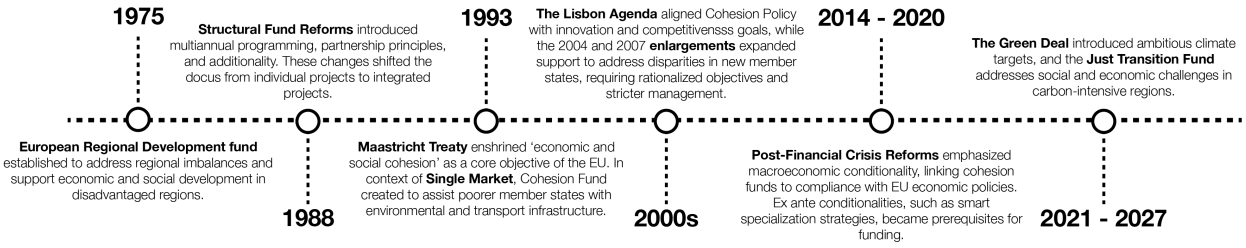


Figure 7: Timeline of Major Innovations in EU place-based policy.

Furthermore, since the early 2000s CP has become increasingly integrated with other EU policies. As traditionally the largest source of funding for a broad range of objectives, it has been seen as supporting the delivery of key European policy objectives under the heading of "Synergies". Indeed, since 2014 in areas of environment, transport and research it has become the key source of funding from the EU budget for the implementation of these policies.[7] Figure 8 presents the alignment with EU priorities and the broad scope of support under Cohesion Policy in the 2021-2027 period.

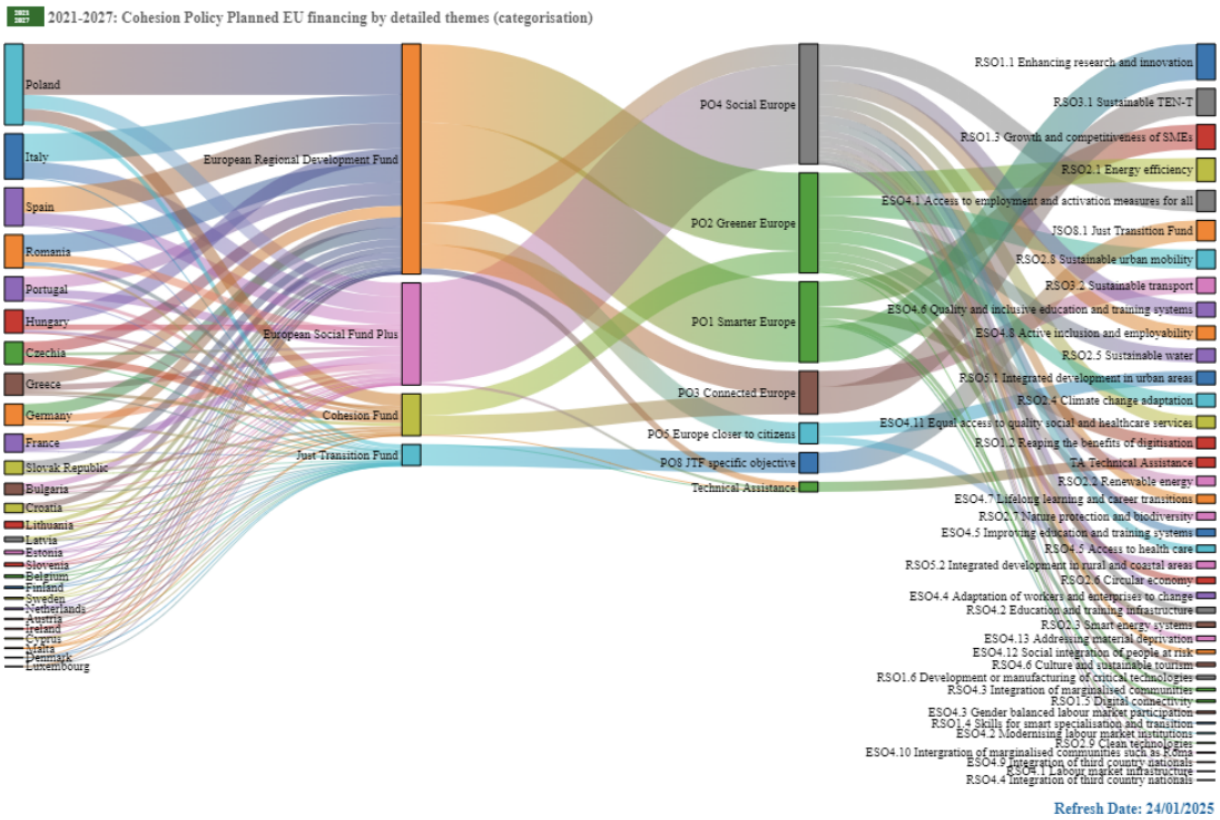


Figure 8: Planned EU Cohesion Policy financing (2021-2027) by country, fund, and thematic priorities.

Historically, US place-based policies have occasionally aimed at fostering convergence in long-term lagging regions, as exemplified by the Tennessee Valley Authority (TVA) (section 4.1). More often, however, they have centered on addressing economic distress (section 4.2), through two primary mechanisms: infrastructure development and employment generation. Programs like the Economic Development Administration's (EDA) Public Works Fund have focused on upgrading physical infrastructure to attract investment and stimulate local growth, while enterprise zone initiatives have aimed to reduce unemployment by incentivizing businesses to hire in certain areas (Hanson et al. (2024); Freedman and Neumark (2024)). Under the Bidenomics agenda, however, the scope of place-based policy has expanded significantly. Recent legislation emphasizes not only traditional objectives but also regional competitiveness and technological innovation, as seen in the establishment of

innovation hubs, investments in clean energy and advanced manufacturing, and efforts to bolster supply chain resilience, particularly in semiconductors (Reynolds (2024)).

3.3 People versus place targets for policy treatment

In the US many policies aimed at distressed areas align with what Ladd (1994) and Neumark and Simpson (2014) refer to as "place-based people strategies." These policies target specific geographic areas with the goal of benefiting disadvantaged residents. Enterprise Zones are a key example. They aim to create job opportunities in areas where employment prospects for low-income individuals are limited; all 50 States and the federal government have some form of enterprise zone program (Freedman and Neumark (2024)). In contrast, other place-based policies focus on enhancing the economic performance of areas without specific regard to the socioeconomic status of residents, such as downtown revitalization projects or the development of industrial clusters. "Place-based people strategies" differ from purely "people-based" policies, which focus on aiding disadvantaged individuals irrespective of their location. Place-based people strategies can be classified into direct and indirect approaches. Direct strategies aim to stimulate economic activity and strengthen labor markets within areas of concentrated disadvantage, whereas indirect strategies seek to improve access to better job markets, exemplified by programs like Moving to Opportunity or transport infrastructure projects designed to mitigate spatial mismatch (Neumark and Simpson (2014)).

Rivlin (2018) notes that many US initiatives labeled as place-based are, in practice, geographically varied programs that target individuals for treatment. In their view, truly place-based approaches differ by targeting the underlying causes of local economic distress through integrated strategies that address interconnected structural challenges - such as labor market dynamics, housing access, and the provision of public goods. These elements are also highlighted by neighborhood-level frameworks such as that of cumulative spatial disadvantage (Sampson, 2018). Although, the EU has been undertaking place-based initiatives

in the form of local development, city regeneration and community led initiatives since the 1990s, The first comprehensive European framework comes from Barca et al. (2012), who underscore the importance of incorporating local institutional capacity, governance, and economic potential into policy design, and suggest that spatially-blind or purely place-neutral policies may overlook context-specific issues and risk magnifying disparities.

Though the US still has greater preference for the people-based treatments and the EU for place-based treatments, it appears that both the US and Europe have moved steadily toward more integrated approaches at area scale. In some cases, this involves area-based plans to treat several problems at once. In many cases, however, it involves multi-level implementation strategies for a single program or goal; and in still others, combinations of the two. At least in terms of narrative legitimacy, the scale of "place" is less contested and more central in Europe as compared to US policy and academic circles. In both continents, such place-based integration is difficult, with high levels of complexity, fragmentation and rivalry between implementing agencies.

3.4 EU budgeting of policy: long-term and rules-based

Cohesion Policy represents close to a third of the EU budget, it is therefore an essential part of redistribution between Member States and negotiation of the Multiannual Financial Framework every seven years. On the revenue side, the EU budget is to a large extent financed through the so-called "national contributions" which are based on Gross National Income (GNI). As a result, the more developed EU economies contribute relatively more to the EU budget, and hence to the financing of Cohesion Policy, than the less developed Member States, and less developed Member States and regions of the Union receive more from Cohesion Policy (Figure 9). The place-based nature is therefore directly reflected in the balance between the contribution of the Member States to Cohesion Policy and Cohesion Policy expenditure.[8]

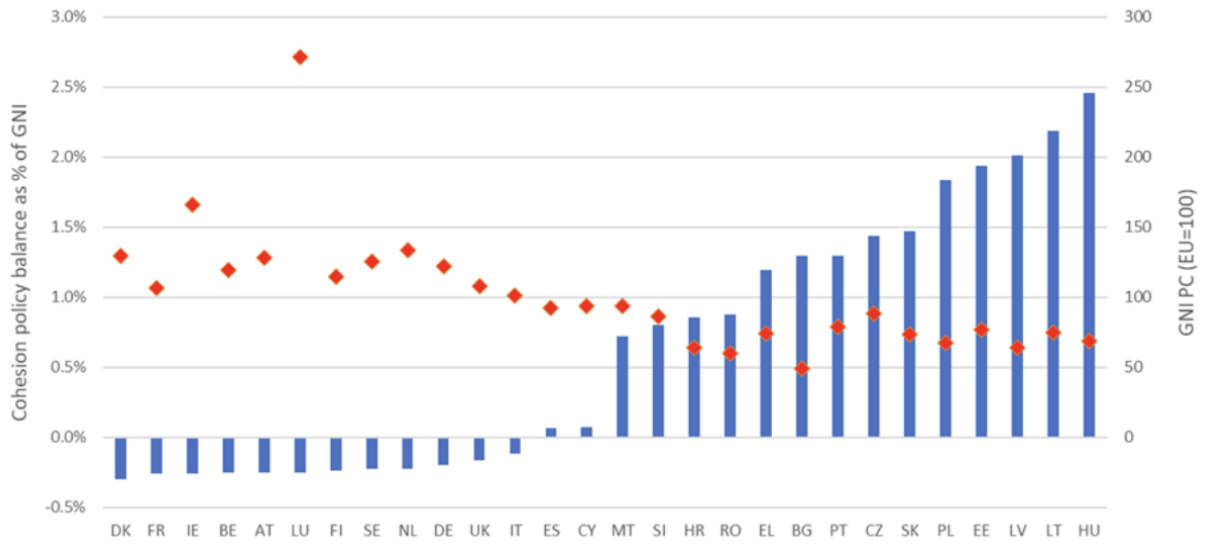


Figure 9: Cohesion Policy share (% of GNI) and GNI per capita, averages 2007-2021 (DG REGIO calculations based on European Commission data).

Turning to the subnational scale, the method used to determine the distribution of EU Cohesion Policy resources is based on calculating amounts at NUTS2 level regions (244 regions with populations of 800,000 to 3,000,000). The method's main indicator is the region's level of GDP per capita. The category of less developed regions is those with a GDP per capita of less than 75 per cent of the EU average; so-called transition regions have a GDP per capita between 75 per cent and 90 per cent (2014-2020) or 100 per cent (2021-2027) of the EU average, and more developed regions have a GDP per capita above 90 per cent (2014-2020) or 100 per cent (2021-2027). In broad terms, the prosperity gap for each region is calculated using the GDP/head (in PPS) as the indicator of regional prosperity, taking account of population and of national prosperity.

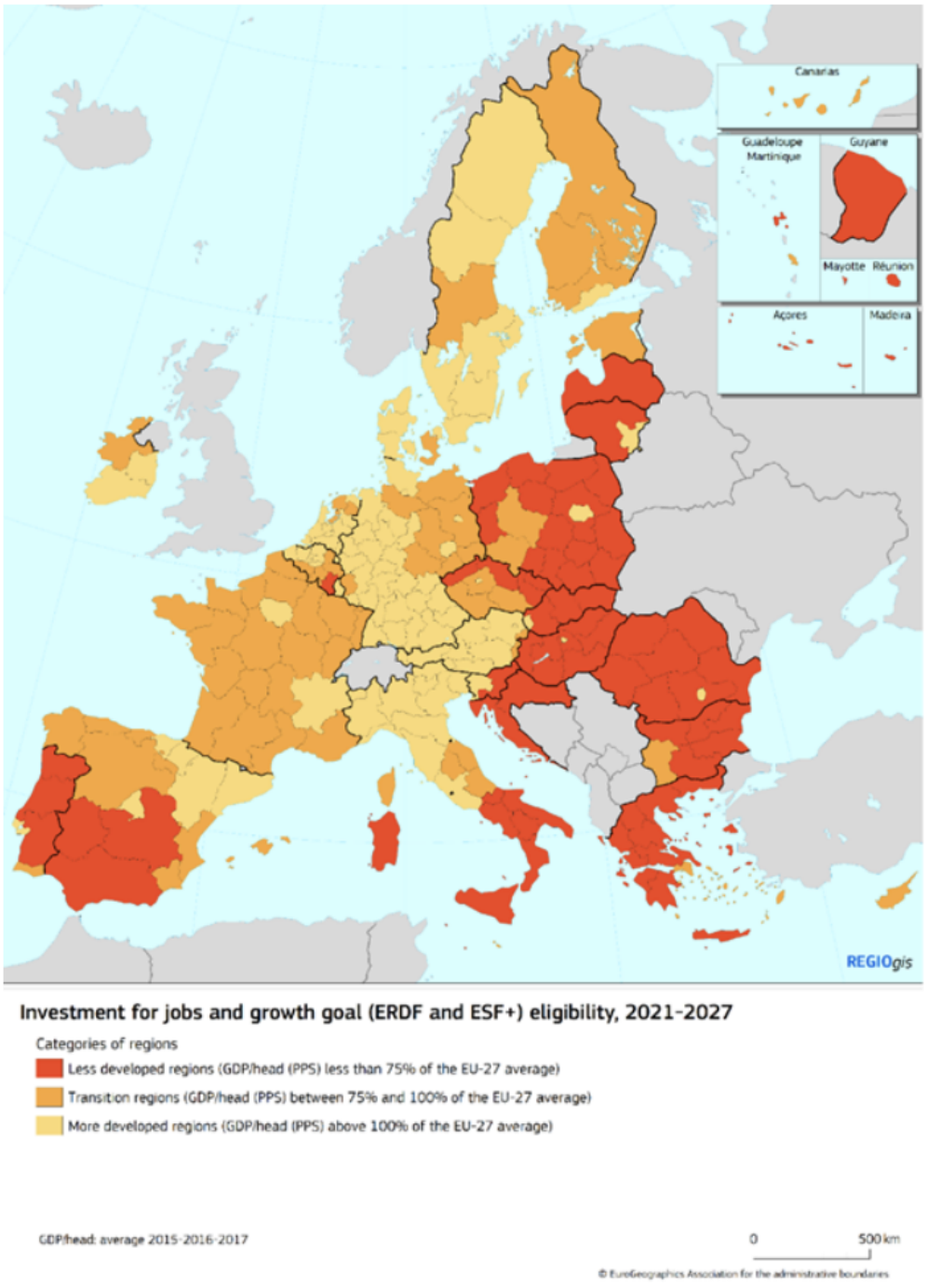


Figure 10: NUTS 2 regions eligible to the three categories for the 2021-2027 period (European Commission).

Several additional indicators are then used to fine-tune the allocation according to the situation of the regions. These indicators reflect socio-economic, environmental, and demo-

graphic challenges: unemployment, youth unemployment, low levels of education, greenhouse gas emissions, external migration. Each Member State's allocation is the sum of the allocations for its individual eligible regions. There are a number of additional amounts for certain types of area and situation (Outermost Regions, Northern Sparsely Populated areas, Just Transition Plan areas etc.). Furthermore, the final allocation of a Member State can be capped to respect a predetermined percentage of its total GDP (to ensure that the allocated EU funds can be adequately absorbed by the Member State). This ranges from 2.3 per cent of GDP for regions below 68 per cent of the EU average GNI per capita in PPS to 1.5 per cent for those below 55 per cent of the EU average GNI per capita in PPP. Member States then have a degree of choice in how these national allocations are organized into programs which can be at national or regional level depending on the institutional arrangements in each.[9]

In contrast, the US approach to place-based funding is characterized by a decentralized and fragmented budgetary framework, reflecting the absence of an overarching objective such as the EU's commitment to balanced spatial development under Cohesion Policy. Unlike the EU's systematic reliance on GDP-based thresholds for standardized regions and predetermined caps tied to national prosperity, US allocations are more discretionary, relying on competitive grant processes, measures of local economic distress, project feasibility, or alignment with federal priorities like innovation and resilience. Funding in the US is also directed toward a variety of territorial units - ranging from CZs and counties to metropolitan statistical areas, tribal lands, or even specific neighborhoods. These grants often include a matching-funds requirement, compelling applicants to secure additional resources from state, local, or private sources.

In the EU, programs are generally negotiated for a period of seven years with an additional three years to complete expenditure. In contrast, for the American case, Reynolds (2024) notes the twin risks that short term political priorities will be woven into industrial and place-based policy, and that they will then be reversed with changing administrations. This

creates greater volatility than in the EU case, in spite of a certain ability to modify and adjust during implementation. Some of the the Biden Administration's programs, on the other hand, unless repealed swiftly, are of such magnitude that they seem to have brought longer term industrial policy horizons, and their regional offshoots, to the US.

However, a consequence of the redistributive basis of policy, from richer to poorer Member States, is that support comes with more strings in Europe. This is most visible in the application of macroeconomic conditionality – respect of the EU's limits on national deficits – to Cohesion Policy. Macroeconomic conditionality gives the EU Council of Ministers, on proposal of the Commission, the possibility to suspend payments from Cohesion Policy when a Member State fails to meet the requirements of the Stability and Growth Pact.[10] Furthermore, 2014-2020 reforms introduced a broad range of ex-ante conditionalities which had to be fulfilled before payments could be made by the Commission. These include, among others, mechanisms to ensure effective implementation of state aid and public procurement rules, the EU Charter of Fundamental Rights, the effective application of EU legislation for water and waste, or the requirement to develop regional innovation (smart specialization) or transport strategies.

3.5 Management of the EU policy supply chain

Cohesion Policy is characterized by a highly rules-based model of governance, which ensures a common set of procedures across the different Member States and regions. Its legal framework is the result of a set of negotiations between the Commission, the European Parliament and the Council of Ministers representing the Member states. But in practice, management is structured but complex and decentralized. The Cohesion Policy framework sets detailed rules on how funds are spent but leaves flexibility to Member States to organize implementation structures and investment priorities in line with their institutional arrangements and internal organization of regional and economic development policies. Responsibilities for implementation operate in shared management between the EU, national and regional levels

in different configurations accommodating large federal countries like Germany and Italy, as well as small centralized countries such as the Baltics. The implementation of Cohesion Policy can therefore vary significantly between countries. The common features of the EU's place based policy supply chain are set out below.

A broad range of actors are involved in the process of programming. Once the Member State has agreed the overall structure of programs, it will then negotiate on its content with the Commission setting out the conditions under which the European budget will reimburse expenditure. At the same time, it will decide which bodies will be responsible for managing implementation. This can be a national or regional ministry, but implementation responsibilities can also be delegated to intermediate bodies. In some countries such as Spain, the national level retains overall responsibility but regional governments have the main responsibility for implementation. Outside the formal management structures, the policy has also developed a range of coordination mechanisms that allow subnational actors to bundle projects into strategies and play a role in project selection. Finally, beneficiaries (public and private bodies, individuals) are responsible for preparing, submitting and implementing projects. The distribution of management and, in particular, program negotiation and project selection responsibilities is often a very political process leading to tensions between different levels of government.

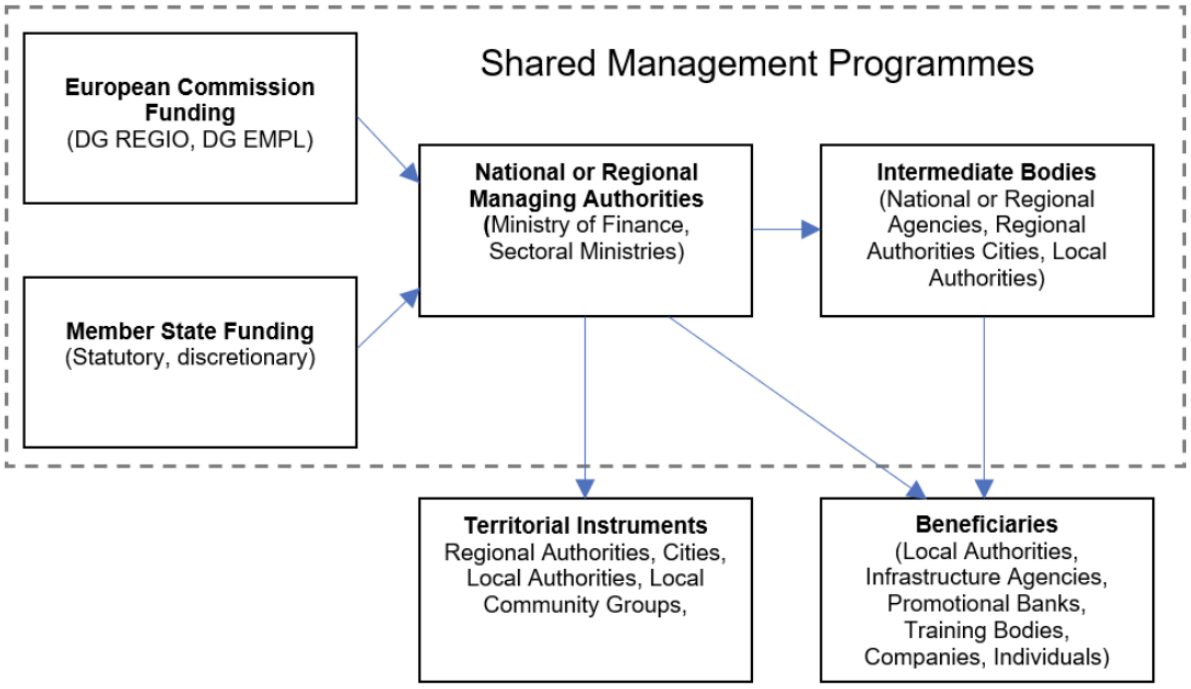


Figure 11: The EU place-based policy supply chain.

Depending on the institutional structure of the Member State and notably the degree of decentralization of policy competences and fiscal and expenditure responsibilities, Member States decide whether to implement Cohesion Policy programs at national or regional levels or a combination of both. Four broad models can be identified (European Commission (2024b)):

- In several countries, management responsibilities are assumed by a single government ministry at national level managing a single or small number of programs and program management has little or no regional dimension (Cyprus, Malta, Estonia and Luxembourg).

- In other Member States, management responsibilities are delegated to other national bodies with strong central coordination. Under this approach, separate MAs operate for programs but with strong central coordination or supervision. Examples of this are Czechia, Bulgaria and Slovakia, where responsibilities are delegated to national

ministries. This also includes responsibility for a single 'regional' operational program, as opposed to having separate regional operational programs managed at regional level.

- In some Member States, management responsibilities are delegated to sub-national levels but within a system where the national level retains important responsibilities. This can involve full delegation of MA status to regional-level bodies but with strong supervision and coordination from the national level. Poland is an example of this. It can also mean the establishment of Intermediate Bodies at sub-national level.

- In federal states, such as Germany, Austria, and Belgium, where regional governments have substantial legal authority and significant budgetary and fiscal powers, a fully regionalised model has generally been adopted, with management responsibilities largely in the hands of regional authorities.

Of 414 programs in the EU in the 2014-2020 period, 126 were administered at national level and 288 were administered at regional level. All Cohesion Fund programs were managed nationally, while roughly three quarters of ERDF and ESF programs were managed at regional level. Large Member States tended to be dominated by regional programs with almost all programs being managed at regional level. The picture is slightly different as regards the distribution of financial resources in national and regional programs. Roughly 40-45 per cent of total resources are allocated through regional programs.

Most Member States made use of intermediate bodies, with the exception of the smallest, around half of the programs made use of formally designated intermediate bodies in the 2014 to 2020 period, with around 700 bodies for the ERDF and Cohesion Fund (European Commission (2024b)).

The US also has a complex and multi-level management structure for its place-based policies, but coordination across the policy supply chain is much more limited than in Europe, nominally falling to the EDA. The EDA's role as a coordinating body has been inconsistent, and it often operates as a grant-distributing agency rather than a comprehensive planner

across federal, state, and local levels. Federal agencies such as the EDA, the Department of Labor, the Department of Housing and Urban Development, and the Small Business Administration oversee distinct policy domains, often working in vertical silos with limited horizontal collaboration. Implementation frequently depends on intermediary organizations like Economic Development Organizations (EDOs), which can be public, quasi-public, or nonprofit entities. These organizations bridge federal funding and local implementation, often tailoring strategies to specific regional needs. State and local governments also play prominent roles, with varying levels of coordination and capacity. This decentralized structure fosters adaptability but also leads to significant disparities in resource allocation and administrative effectiveness.

A crucial difference is that the EU has an ongoing effort to view and adapt the system from the top, while this does not appear to be a concern in the US. That both of them have complex and multi-layered definition, management and implementation of programs may be due to the fundamentally diverse nature of territorial conditions and problems. In the following sections we will assess the consequences and effectiveness of the EU's strategy of comprehensive rules-based and long-term management and budgeting from the top in three main problem areas.

4 The three broad areas of place-based policy in depth

In this section, we consider how place-based policies address three kinds of place-based problems. In both the US and Europe, policies aim to deal with two types of regions whose economies underperform national or EU averages, with combinations of high unemployment or low employment, stagnant wages and incomes, sluggish business formation, and exodus of the young and the skilled. Though they may resemble one another descriptively, the two have different causes. 'Lagging' regions will be used to refer in this paper to regions that have long-term underdevelopment reflected in a lower income than the national aver-

age; whereas 'distressed' regions will refer to those places that were once prosperous and highly-performing, but have been subject to shocks – mostly from technological change, globalization, and increasingly the energy transition, leading to deindustrialization – that have driven them down the ranks of regional economic performance. We begin in this section with the EU's policies for long-term lagging or underdeveloped regions. We then turn to specific place based instruments for innovation and high-tech development.

Table 1: The three place-based policy areas

Place-based policy area	**EU**	**US**
Lagging regions	Long-standing treaty objective Consumes the bulk of resources	Policies are typically localized Regional commissions at the federal level
Distressed areas	Strong focus in early years of policy Increasingly integrated into larger regional programs Dedicated program for just transition in fossil fuel and energy-intensive areas	Explicit objective of a range of programs Strong focus on employment measures Significant resources for private sector investment through tax credits
Spatial innovation	Strong focus on process within regional programs Covers all regions Main instruments are grants and loans	Combination of national schemes and local public and private resources Cluster and hub development in specific cities and regions Largely tax credits; grants and loans for sector specific funding

4.1 Policies for long-term lagging regions - can policy stimulate catch-up?

A common objective of place-based policies is to induce economic modernization or catch-up in traditionally backward regions. In line with its Treaty Objectives, the EU dedicates the main part of resources to such lagging regions. The 1988 reform of Cohesion Policy defined eligible regions as those with less than 75 per cent GDP per head, when such 'Objective 1 regions' accounted for roughly 22 per cent of the EU population. In the following years, eligible regions were more rigorously defined as those having a level of GDP per capita (PPP) in the three years preceding the allocation decision of less than 75 per cent of the EU average. This has generally covered 25-30 per cent of the EU total population with aid levels in these regions typically 5-10 times higher than in others.

In practice, the policy towards lagging regions has operated in three distinct contexts. The first has been entire countries, where the national average GDP per head is significantly lower than the EU average. A second group is those countries that have had one large lagging region, such as southern Italy and former east Germany. In the case of Southern Italy (Mezzogiorno), policy has tended to resemble that applied to cohesion countries. The third group consists of small poor regions in rich Member States, such as Corsica and the outermost regions in France, Highlands and Islands and Cornwall in the UK. In these cases, economic challenges were closely linked to peripheral locations.

The enlargement in the 2000s to central and southeastern Europe further consolidated the role of Cohesion Policy in its focus on economic integration of lagging regions. In the mid-90s while Slovenia and The Czech Republic had GDP per capita (PPP) levels of around 60 per cent of EU15, Slovakia, Hungary, Poland, Romania and Bulgaria were closer to a third of EU levels. Outside more prosperous capital cities, income levels were far lower and some regions were estimated to be at 15 per cent of the EU average. The transition process of the 1990s had created many losers including rural, mono-industrial and eastern border regions (Bachtler et al. (2014)). Much of the infrastructure was Soviet era, with a legacy of

environmental damage, and businesses with poor integration into international markets, and a lack of access to modern managerial practices and technologies. The potential accession of Ukraine, Moldova and the Western Balkans in the longer term will require the integration of countries with significant regional disparities, ethnic divisions and disputed borders.

Broadly, the focus of EU expenditure is on infrastructure and connectivity for the lagging regions in lower income Member States combined with support for the modernization of companies and the workforce as well as supporting the employment of workers moving out of agriculture. This echoes the longstanding tradition of US federal involvement in underperforming regions, beginning in the 1930s with the TVA and expanding in 1965 through the creation of the ARC. Over time, this 'regional commission' model was further broadened with the Denali Commission in 1998, the Delta Regional Authority in 2000, and the Northern Great Plains Regional Authority in 2002; additional commissions - the Northern Border, Southwest Border, and Southeast Crescent - were established in 2008. In broad terms, the US regional commissions most closely mirror the EU's strategies for a single large lagging region within a higher-income country - like the Mezzogiorno or Eastern Germany. Smaller commissions (e.g., the Denali Commission) echo the approach for more peripheral regions in the EU. In practice, the Commissions allocate resources to 'distressed' subareas based on varying definitions, underscoring the complexity between the conceptual framing of 'lagging regions' and the on-the-ground nuances of targeted, place-based investment (Pipa et al. (2022)).

The greatest successes of Europe and the US resemble one another, in that there has been significant regional catch up as a consequence of the convergence processes described in Section 2. In the US South and interior west, post-war convergence raised the per capita incomes of many low-income states toward the national average. As we noted, this is also the case for Europe, which has had notable success in promoting Member State convergence. Both places used policy, but Europe's has been more deliberately labeled convergence policy than was the case in the US, with large scale transfers of public resources. The ERDF and

CF in 2014–2020 accounted for around 10 per cent of the total public investment carried out across the EU. While the ERDF and CF jointly provided around 3 per cent of total public investment in non-cohesion countries (greater than 90 per cent of the EU average GDP), it provided 40 per cent in cohesion countries.

More problematic in both the US and the EU is that there are long-term lagging regions, such as parts of Southern Europe, the rural Deep South in the US, or Appalachia. In Europe, progress seems better in the lagging regions of the eastern European convergence countries than in the lagging regions of older Member States. A first generation of studies focusing on Cohesion Policy before enlargement, covering the years before 2007 were generally inconclusive as regards the overall positive impact of Cohesion Policy. Most of these studies found more positive effects in less developed regions (Ramajo et al. (2008); Esposti and Bussoletti (2008); Mohl and Hagen (2010); Tomova et al. (2013); De Dominicis (2014)). However, the effects when other types of region were taken into account were inconclusive or negative (Rodríguez-Pose and Fratesi (2004); Dall'erba and Le Gallo (2008)).

Studies covering later periods using better data and more sophisticated counterfactual methodologies all find positive results at aggregate level (Becker et al. (2010, 2012, 2018); Pellegrini et al. (2013); Crescenzi and Giua (2016); Crescenzi et al. (2017); Ferrara et al. (2017); Calegari et al. (2023); Lang et al. (2023)). The results of the studies based on regression discontinuity design suggest that the average multipliers of the policy are in the order of 0.8-1.4 (von Ehrlich (2024)). They are generally higher in lagging regions. Nevertheless, these results are very heterogeneous with Europe's "lagging regions" including poor "low-income" areas in central and eastern Europe, that are falling behind national growth rates, as well as "low-growth" regions in southern Europe that are experiencing stagnant productivity and job destruction (World Bank (2018b)).

The stubbornness of certain cases of lagging regions in Europe, as in their American counterparts, are a challenge to place-based policy thinking. To treat the latter, there is a strong focus in the EU on institutions and quality of government and other conditioning

factors. The issue of quality of institutions and local government has been extensively studied with a clear link with effectiveness of policy outcomes on GDP and employment (Ederveen et al. (2006); Beugelsdijk and Eijffinger (2005); Rodríguez-Pose and Garcilazo (2015); Albanese et al. (2021)), notably in less developed regions. This had led in turn to a discussion of further policy measures to support sub-national reforms and reinforcement of public administration at regional and local level.

4.2 Policies for contemporary distressed regions - can policy unleash a comeback?

In both the EU and US, distress takes many forms, but principally it is seen in deindustrializing formerly prosperous areas. In the US, many such regions have suffered first from post-war relocation of industry to the South, and then from the globalization-China shocks, both accentuated by automation (Autor et al. (2013); Acemoglu and Restrepo (2020)). In Europe, analogous types of regions exist, as in formerly prosperous deindustrialized regions such as northern France, the Ruhr and Belgium, and northern England. Later waves of deindustrialisation have affected many parts of southern Europe. Distress also extends to rural-agricultural areas that are affected by competition from integration and globalization.

In both continents there remains no universal definition of methodology in policy practice. However, the language of distress is used far more in the US than in the EU, and considerable attention is paid to place-based policies for distressed areas. At least 29 definitions are used across 25 federal bodies, with variation in the indicators (unemployment rates, poverty rates, educational attainment etc.), geography (counties, census tracts, or ZIP codes), and data sources relied upon (Pipa et al. (2022)).[11] There is rough agreement that distressed areas have some combination of: net out-migration, especially of the young and the skilled; and low per capita income; low employment or labor force participation. Other definitions include measures of social well-being, although these are typically considered place-based policies for community development instead of for local labor markets (Bartik (2020)). Measures

of unemployment receive consistent focus, reflecting the wide-ranging social and economic costs of joblessness, including poorer health, increased crime and substance abuse, family instability, and lower educational attainment (Austin et al. (2018); Bartik (2020)). Unlike in many EU countries - where healthcare is decoupled from employment - most Americans rely on employer-sponsored health insurance, magnifying the adverse effects of involuntary unemployment and making addressing joblessness a more urgent priority (McCann (2023)).

In Europe, policy for distressed areas was included in 1988 and 1993 reforms. These policies had clear objectives and a high degree of geographical targeting, covering 25 per cent of the EU population in the 1990s. They covered industrial areas in decline (Objective 2), rural areas with structural difficulties (Objective 5b) and were accompanied by a range of sectoral initiatives aimed at specific areas (Communities Initiatives). There were also sectoral initiatives focused on supporting areas dependent on the coal, steel, textile and defense industry, which were experiencing decline due to deindustrialization (known by their acronyms RECHAR, RESIDER, RETEX and KONVER). URBAN addressed urban regeneration issues in cities with high levels of unemployment and social exclusion.

Table 2: Examples of eligible Objective 2 and Objective 5b regions in the EU.

Objective Area	**Region, Country**	**Description**
Industrial Decline	Nord-Pas de Calais, France	Once heavily reliant on coal and steel, suffering from deindustrialization.
	West Midlands, UK	Former manufacturing hub facing industrial restructuring and the decline of traditional industries.
Rural Decline	Ardennes, Belgium	Sparsely populated, struggling with outmigration and aging, dependent on declining agricultural activities.
	Western Ireland, Ireland	Low population density and limited opportunities outside of agriculture, facing significant demographic decline.
Urban Areas with Social and Economic Problems	Leipzig, Germany	High unemployment, deteriorating housing, and social exclusion, particularly in the aftermath of reunification and collapse of East German industries.
	Marseille, France	High unemployment, social exclusion, and crime, particularly in immigrant neighborhoods.
Fisheries-Dependent Areas	Galicia, Spain	Reliance on fishing, affected by declining fish stocks and EU regulations, requiring economic diversification and job creation.
	Cornwall, UK	Affected by the decline of fishing, seeking to diversify through tourism and renewable energy projects.

In order to simplify the implementation of the policy these different objectives were integrated into a single objective covering all types of distressed areas in the 2000-2006 period. A further simplification took place in the 2007-2013 period, when all regions became eligible for support, with geographical targeting on distress left up to Member States. The Brexit vote and Trump election in 2016 triggered a renewed EU concern with so-called 'left behind places' (Dijkstra et al. (2020)).[12]

In the US context, Bartik (2020) recommends concentrating on high-multiplier sectors, avoiding bias toward large firms, strengthening local infrastructure and business inputs, coordinating policy packages tailored to local needs, and quantitative evaluation. McCann (2023) notes that these principles closely mirror the 2014–2020 reforms of EU Cohesion Policy, and indeed these features are likely easier to achieve through the EU's comprehensive, multi-faceted development strategies spanning multiple years, compared to the US approach which relies heavily on ad hoc enterprise zone incentives for businesses and far less on other mechanisms.

Along these lines, there is evidence that many parts of Europe managed the consequences of deindustrialisation in the 1980s and 1990s better than the US. Recent research suggests US Rust Belt Communities have fared relatively worse compared to their peers in other industrialised countries (Gagliardi et al. (2023)). Although there are many different causes, it is clear that public policy played a major role. Initiatives such as the Future Initiative for Coal and Steel Regions established in 1987 for the Ruhr valley, sought to increase industrial competitiveness, invest in public infrastructure and strengthen higher education institutions (Galgóczi (2014)). A combination of early retirement and retraining was offered to workers. Similar initiatives were successfully pursued across Europe over the coming years in places such as Rotterdam, Bilbao, Lille, Manchester, Limburg, East London, and Catalonia, often built around strategies to strengthen universities and support a shift into the service sector (OECD (2019); Custers and Willems (2024); Audretsch (2015); Frick et al. (2023)).[13] However, the urban focus of these rebound stories reflects the fundamentals of post-1980

geography. Thus, they are positive examples of place-based policies for distressed areas but leave open as to how to extend the rebound to their more spread out hinterlands of smaller towns and villages. In spite of significant investment in training, business development and social services, diversification has proved much more difficult in many of the traditional industrial communities in peri-urban and rural areas.

4.2.1 When distress becomes entrenched

Recovery from distress is partial and uneven in both the US and EU. When it does not happen, downward dynamics can become entrenched, and regions that were once considered to be in short-medium run distress may turn into long-term underdevelopment. Connor et al. (2024) demonstrate the problem of persistence of distress over the medium run in Figure 12, where it can be seen that even a prosperous, growing economy such as the US has significant durable regional distress that appears to be turning into long-term stagnation. In this sense, the categories of lagging regions and distressed areas are not perfectly distinct.

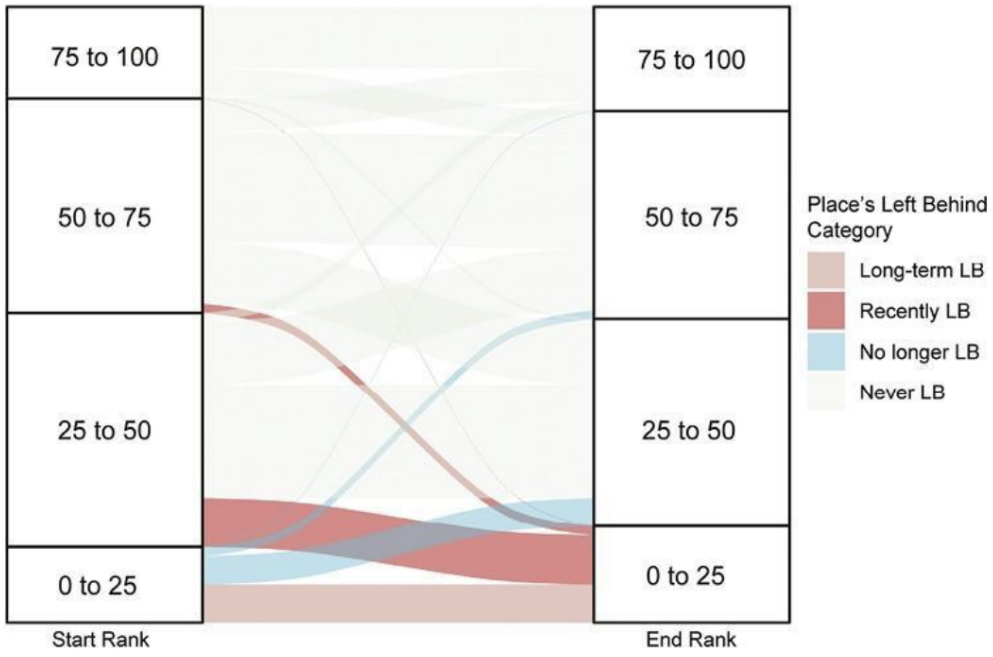


Figure 12: Distressed areas in the US over time (Source Connor et al. (2024).

Europe has a particular version of this problem. Many European middle-income regions (with a GDP per head between 75 per cent and 100 per cent of the EU average), particularly in more developed Member States, seem stuck in a 'development trap,' meaning long-term income and employment creation stagnation. Examining them as panels between 2001 and 2019, whether benchmarked to their Member State national economy or to Europe as a whole, their growth of GDP per head was well below average, and most exhibited productivity growth and employment creation below the European average (European Commission (2022)). In Europe, there are even some high-income regions that are in long-term slow-growth or no-growth. The US is a contrast to this, in that the distressed regions in Connor et al. (2024) are overwhelmingly low-income with high levels of social and household distress. Slow-growth at high or medium-income levels, with strong welfare state support, may not correspond to the traditional image of distress, but in the European long-term context of growth and innovation deficits and weak demography, there is a worry that such conditions will begin to transform into social and household distress and that there will be insufficient counter-cyclical investment to prevent such negative spirals. This issue has only emerged on the European policy agenda in recent years and is likely to be taken up in the next cycle of Cohesion Policy (2028 onward).

4.2.2 The energy transition and new types of place-based policy for distress

Both the EU and the US face significant and unevenly distributed social and economic costs when shifting to new energy sources. Job losses in the coal industry have become a major political issue, reflecting concerns that cleaner-energy initiatives resemble earlier industrial disruptions, which led to prolonged unemployment, wage stagnation, and poverty (Hanson (2023); Black et al. (2005); Charles et al. (2019)). Consideration of the social costs of the energy transition is integrated into the decarbonisation agenda (to become carbon neutral by 2050) of the 2020 European Green Deal, as well as the impact on its energy system and prices due to the decoupling from Russian energy sources following the invasion of Ukraine,

and the EU's industrial objective of consolidating its position as a green tech leader.

The principal mechanism to address the economic and social costs of the energy transition in the most affected areas is the Just Transition Fund, with a budget of almost EUR 20 billion from 2021 -2027. The resources are targeted on the areas to a much higher degree of geographical targeting than in mainstream Cohesion Policy programmes. The map below shows the 70 areas selected for support (Figure 13).

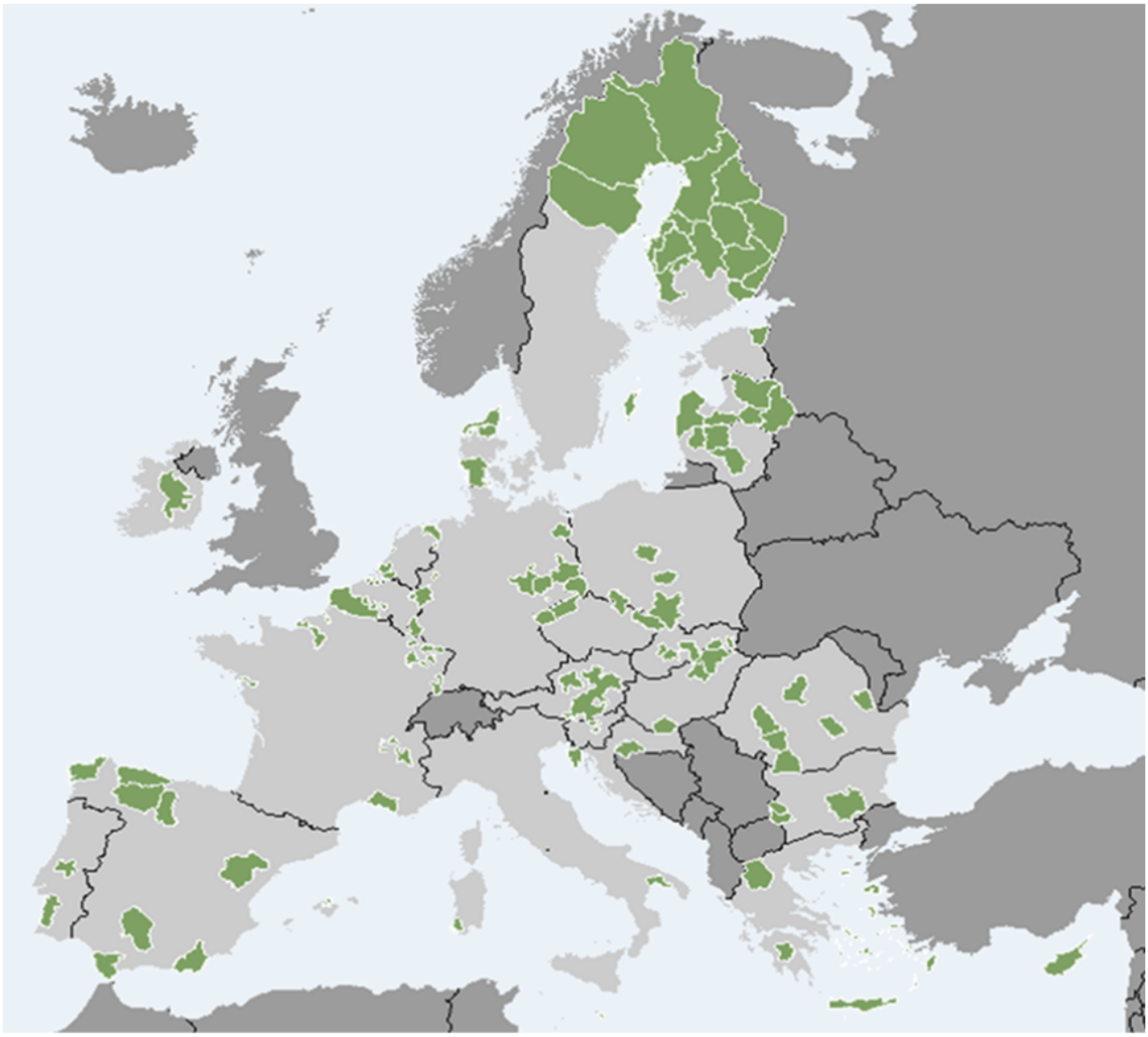


Figure 13: Territories eligible for JTF support (Source: European Commission).

Support from the fund requires an analysis of the climate transition process and the

specific local challenges for each territory, built on a participatory process involving local stakeholders and partners in the planning of supported actions. In the case of fossil-fuel extraction (coal, oil, shale oil, peat), processing and power plant closures the focus has been on economic diversification, investments in SMEs, job creation, upskilling and reskilling of workers and job seekers, community infrastructure as well as land/brownfield regeneration, decontamination, and repurposing and challenges in specific territories. In areas affected by transformation of carbon-intensive industries (such as steel, cement or chemicals) the focus is on the introduction of new technologies and the associated retraining of staff, as well as addressing the impact of capital intensive investment that can lead to job losses. In areas where coal plays a major role in the local economy, the fund is used to develop sustainable alternatives.[14]

In the US, federal place-based policy has largely focused on mitigating the effects of coal plant closures in distressed communities. Central Appalachia, for instance, has been especially hard-hit, with declining coal employment eroding local tax revenues and undermining broader economic stability (Morris et al. (2020)). Programs have included the 2016 Abandoned Mine Land Economic Revitalization Program, the 2015 Partnerships for Opportunity and Workforce and Economic Revitalization Initiative (POWER), and the 2014 Assistance to Coal Communities program (Lawhorn et al. (2023)). Compared to the approach taken in the EU these programs remain piecemeal, with fragmented designs and limited funding - none received more than $130 million per year. They are also more at risk of changing political environments, with the Obama-era POWER program - envisioned as a multi-agency strategy to assist coal communities - being largely unraveled under the first Trump Administration (Cecire (2019)). Under the Biden Administration, the Infrastructure Investment and Jobs Act and the Inflation Reduction Act introduced additional federal place-based policy to spur investment and innovation in clean energy and simultaneously support distressed and fossil-energy intensive areas (Gansauer (2024)), though these efforts may likewise face threats as political priorities change. In contrast, the EU Just Transition Fund approach will

likely become more important in the future, and will be extended to other sectors affected by the commitments that the EU has undertaken in relation to the decarbonisation of its economy.

4.3 Europe's innovation agenda: the spatial and place-based dimensions

As we have seen in section 2.3 the key innovation challenges for Europe are to encourage greater world-leading innovation and to spread the use and production of new technologies through mature traditional industries. There is a long and winding road in EU efforts to promote innovation and to use place-based policy sometimes as a presumed source of such innovation and at other times a means to spread it. We go through some key moments in this process below.

4.3.1 Agglomeration theory and innovation

For clusters of basic innovators/first mover commercialization, agglomeration theory suggests that policy interventions can generate positive externalities, both locally and for the economy as a whole, with geographical concentration/specialization increasing either productivity generally or innovation productivity in particular. As Duranton (2011) points out, because the three key recognized features of agglomeration – sharing, matching and learning – interact and have two-way causality. This makes them difficult to reproduce via policy, and there has been much policy failure in the past few decades. On the other hand, as Duranton and Venables (2018) suggest, these features of clusters are collective action phenomena. As such, they may over concentrate and not achieve an optimal spatial equilibrium allocation across regions. Policy may be necessary to break the collective action logjam. But paradoxically, policy has seemed to be rather poor at understanding exactly what it should do to successfully re-allocate sharing, matching and learning toward an alternative distribution. And somewhat in contrast to this view, the "new agglomeration" literature (e.g. Delgado et al. (2016))

establishes that the nature of agglomerations in leading tech-oriented industries today may be more cross-sectoral than the single-industry agglomerations of the mechanical age. In this case, they require more scale, and the opportunities to achieve a more distributed equilibrium may be limited compared to the past. This is more a problem for Europe, with its more fragmented and redundant clusters and its large number of middle-sized less specialized metro areas than the US. The challenge for Europe has therefore been to strengthen its capacity to operate its innovation ecosystems at the world technology frontier while helping lagging and distressed regions to move closer to the European frontier through diffusion of technology and the building of capacity at regional level. In Europe there has been a tension between policies that aim to close the innovation gap with international competitors and policies that seek to upgrade innovation capacity in lagging and distressed regions to achieve economic development goals. As noted, while the US has a larger presence in world-leading innovations, reflected in its many vibrant innovation agglomerations, there is an unresolved scholarly debate about the extent to which deliberate spatial or place-based policies generated those agglomerations and innovation success, as opposed to innovation policies and market forces that are spatially expressed in the form of these agglomerations. For both Europe and the US, then, there is an underlying question for policy design of whether the geography of innovation is a potentially causal channel for increasing innovation or a consequence, or at least how the causal channels might be intertwined.

4.3.2 EU policies to improve growth and innovation

For much of the past two decades, EU policy-making has been broadly concerned with accelerating growth in the union, and in overcoming gaps to perceived competitors such as the US and China. The Sapir et al. (2004) Report argued that in order to increase Europe's overall growth rate there was a need to better align the EU budget with policies that would encourage a shift to a knowledge-based economy such as research and innovation (Berkowitz (2021)). Then, in 2009 The Lisbon Agenda stated its intention to make the EU the world's

most competitive economy by 2020. At the same time, a framework program for world-class research, known as Horizon 2020, and its successor Horizon Europe, were established. As a result,during the 2014-2020 period, the EU allocated a larger proportion of its budget to R&I, through two main channels. The first is known as Horizon 2020 (H2020), and the second is Cohesion Policy, with 95 per cent of the latter sourced from the ERDF. H2020 received a substantial budget allocation of EUR 76.4 billion, while the ERDF invested EUR 42.6 billion through around 225 operational programs (around a quarter of the fund). For the 2020-2027 period, the program's budget has increased to EUR 95.5bn. It has a new three pillar structure, maintaining "excellent science", (EUR 25bn) combining industrial and societal challenges into a new "global challenges and European industrial challenges" pillar (EUR 53.5bn) and creating new "third innovative Europe" pillar (EUR 13.6bn) with the establishment of a new European Innovation Council focused on breakthrough innovation.

H2020 and its contemporary extension has three pillars:

- Excellent science: to raise the level of excellence in the science base and ensure a steady stream of world-class research.
- Industrial leadership: to build leadership in enabling and industrial technologies, access to risk finance and support for innovative SMEs.
- Societal challenges: to address concerns shared by European citizens from research to market with a strong focus on pilots, demonstrations and test beds. Areas include health, demographic change and well-being, food security, sustainable agriculture and forestry, the marine environment, the bioeconomy, energy, transport, climate and the environment.

The budget also included a small amount (EUR 800mn) to spread excellence and widen participation in less developed Member States.

Excellence through Horizon tends toward spatial concentration, although it is managed through place-blind mechanisms. The competitive nature of the bidding process and the fo-

cus on excellence generates a very strong correlation between level of economic development and allocation of H2020 funding, and is strongly linked to existing levels of national investment in research and innovation. Approximately 25 per cent of European regions received 90 per cent of the Horizon Europe budget. Furthermore, 15 NUTS 3 regions out of more than 1000 received 30 per cent of the budget. Only one of these (Stuttgart) was not a capital city (Morollón and Fernández-García (2023)). The Member States who joined the European Union after 2004 have faced significant difficulties in attracting the resources, receiving only 5 per cent of the available funds (European Commission (2024a)).

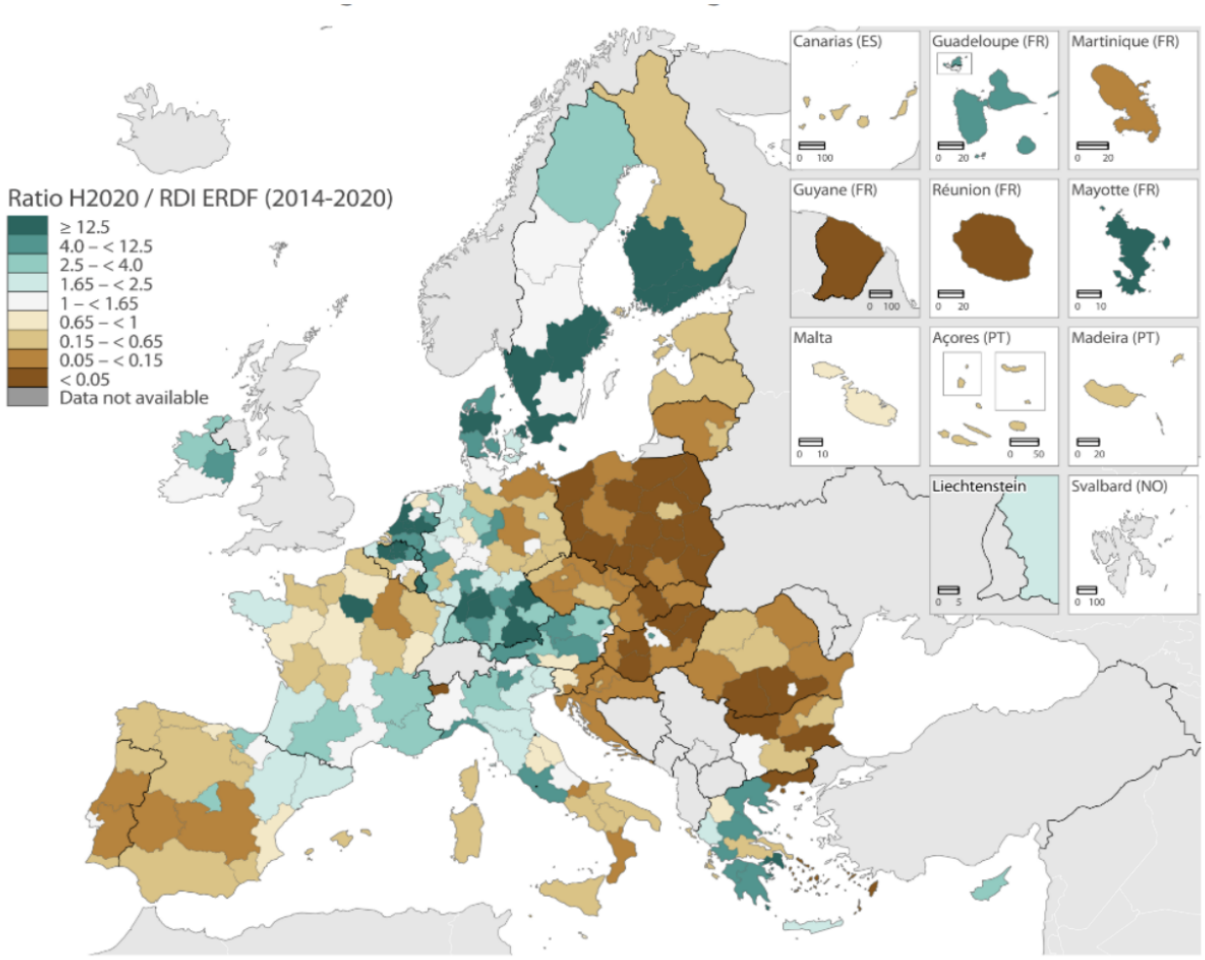


Figure 14: Ratio of use of Horizon 2020 funds to cohesion policy funds (only the R&I part of ERDF funding) across EU NUTS 2 regions, 2014-2020 (Santos et al., 2024)

To put this in context, however, the total resources from R&I under Cohesion Policy

are small compared to total Member State investment in R&I - EUR 6 billion per year from 2014-2020 compared to EUR 311 billion in the EU as a whole in 2020 (European Commission (2024c)). However, their role in the less developed Member States in central and Eastern Europe, who generally benefit little from Horizon 2020, can be very significant. In Poland, Latvia and Lithuania, it accounts for more than 30 per cent of general government expenditure on R&I. Moreover, below national level, while the distribution of Cohesion Policy funds for innovation are more equal than those for excellence, they also tend to concentrate in larger urban centers and in particular capital cities, where clustering of research and innovation activities are to be found.

4.3.3 The attempt to reconcile the goals of innovation excellence and spatial spread

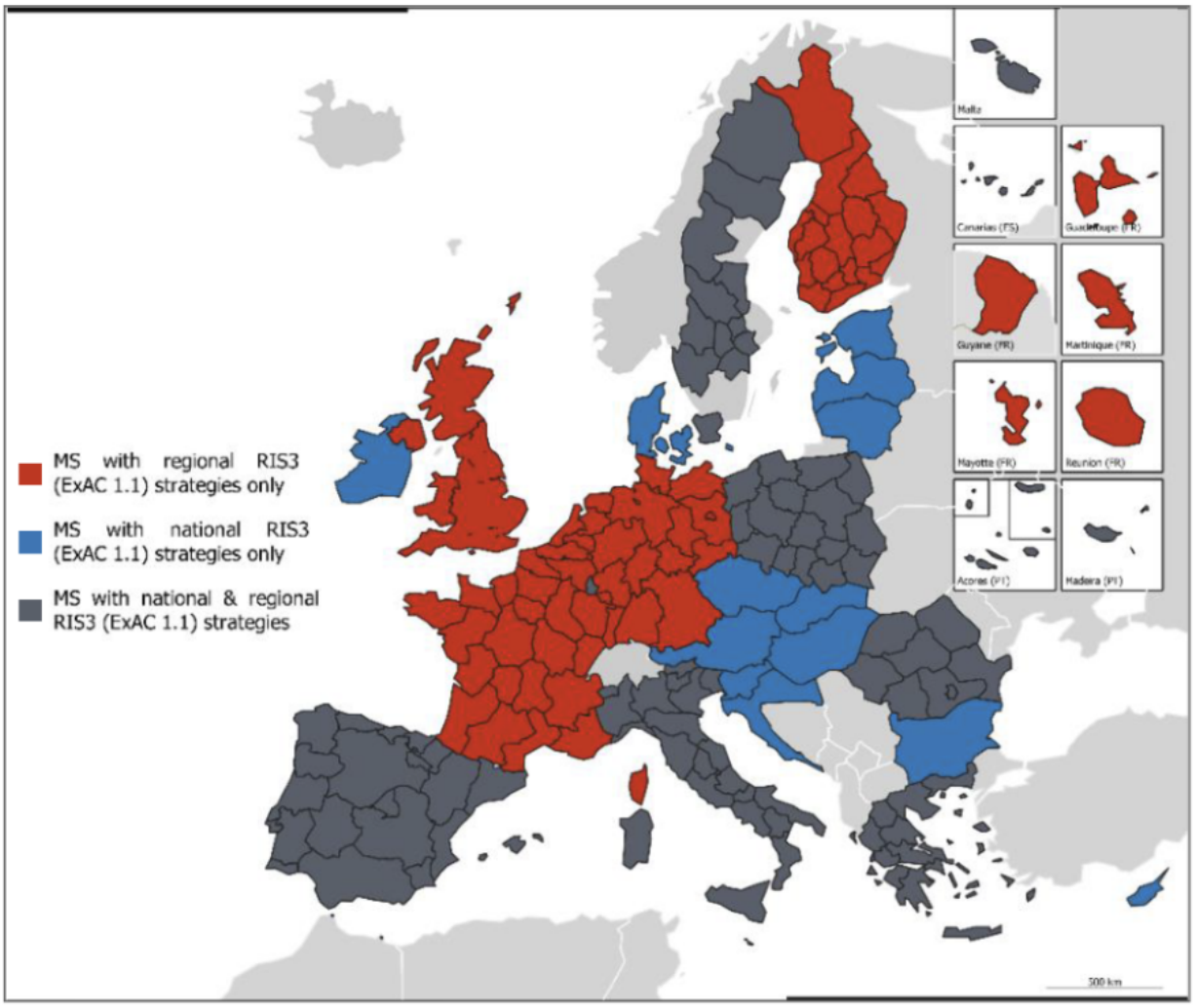
A clear tension exists between the excellence agenda described above and the convergence goals of Cohesion Policy. Indeed, the mounting concern with innovation and growth deficits compared to China and the US has led to pressure for Cohesion policy to contribute to excellence goals, manifested in a shift in Cohesion policy, away from hard investments in infrastructure to investments in small business, human capital and innovation.

Cohesion Policy has therefore had a long-standing ambition to contribute to growth and innovation in the EU. In the early years of Cohesion Policy, innovation remained a relatively small part of investment, with the focus mainly on research infrastructures and science parks in lagging regions and technology transfer centers in distressed regions. There was interest in regional innovation strategies that were piloted in regions that, it was hoped, would demonstrate how to generate innovation ecosystems (Landabaso and Youds (1999)).

Throughout, the EU framework has been heavily influenced by the notion that innovation excellence might be reconciled to its spatial spread by building regional innovation capacities in as many places as possible. The academic source for this is a 2009 paper by Foray, David, and Hall, which proposed that this could be achieved through "smart specialization," an

entrepreneurial process of discovery, a learning process to reveal the research and innovation domains in which a region can hope to excel. The role of government would be to supply incentives to encourage public, private, and knowledge actors in regions to become involved in the discovery of the regions' respective specializations and to identify complementary investments both within and outside the region, to link leading and lagging regions (Foray et al. (2009)).

In practice, smart specialization brought together a number of different ideas: a regional innovation systems approach that argued for place specific approaches, based on this discovery process that would gradually transform the shape or innovation investment. This would require the involvement of the private sector and regional government in a triple-helix approach. This stood in opposition to the traditional strong science led approach that predominated in Cohesion Policy in early years (Foray et al. (2009);McCann and Varga (2015)). In order to make these principles operational, the development and implementation of smart specialization strategy was made a "conditionality" applied to research and innovation investments under cohesion policy in the 2014-2020 period. This meant that before a program was approved, a national or regional smart specialization strategy had to be adopted that concentrated on a limited set of research and innovation priorities. Over 180 smart specialization strategies were developed (Figure 15). Part of this number can be attributed to their obligatory nature, but they also reflected a significant demand as well for more place-based policies for innovation at regional and local level (European Committee of the Regions (2018)).



Source: Prognos / CSIL (2021). Note: the map refers to the latest available strategies

Figure 15: Smart Specialization Innovation Strategies in the EU: coverage of smart specialization strategies (Source: European Commission).

Part of the attraction of the smart specialisation approach was that it provided a narrative for broad involvement of many stakeholders in the spatial allocation of policy responsibilities between H2020 and CP. In this narrative, the role of the EU's R&I policy would be to generate new scientific knowledge, leading-edge industrial technology solutions, and technical and systemic solutions to societal challenges, while regional innovation under Cohesion Policy would focus on developing and matching regional research and innovation capabilities to business needs. Together they could provide a comprehensive approach to excellent science, industry leadership and societal challenge, from generation to territorial spread.

	H2020 aims to generate new scientific knowledge, leading-edge industrial technology solutions, and technical and systemic solutions to societal challenges		
Horizon 2020	**Excellent science**	**Industry leadership**	**Societal challenges**
H2020 implementation	Excellent science but not necessarily directly locally relevant, despite possible knowledge spillover effects. Multiple but disconnected individual projects.	Islands of industrial technology excellence which need to be locally enlarged and networked for more spillover effects and value-chain integration.	Pilot solutions which require further local adaptations to be implemented. Solutions should be better aligned to the demand/capabilities on the ground.
	Smart specialisation aims to foster innovation deployment to build competitive advantage by developing and matching regional research and innovation capabilities to business needs.		
RIS3 implementation	Supporting 'pockets of scientific excellence' and creating links to private sector regional actors. Need for integration in European Research area and networks.	Strengthening and clusters and encouraging technology adoption. Need for connections with EU industrial ecosystems and value chains.	Adapting and implementing pilot solutions to the local context. Mobilising demand-side instruments and strengthening participation of civil society and user groups.

Figure 16: Synergies between Horizon Europe and Smart Specialisation, adapted from Foray et al. (2019).

However, smart specialisation has not successfully resolved the tensions between excellence, spatial concentration, and spatial spread of innovation. In spite of intensive work to align the two regulatory frameworks, linkages between the centralized model of Horizon 2020 and Horizon Europe and the bottom up approach taken by Cohesion Policy at the regional level have been the exception rather than the rule. Significant barriers remain, especially for stakeholders with fewer resources (European Commission (2025)). In particular, Horizon Europe's beneficiaries have weak knowledge of the ERDF's potential for deployment and commercialization of their project results in line with smart specialisation strategies (European Court of Auditors (2022)). Creating synergies in areas linked to EU priorities, notably in the area of industrial innovation, has to date been weak.

Another tension between technological excellence and spatial spread can be found in the European academic debate. Smart specialisation emerged from gradualist evolutionary

thinking with respect to technological and regional economic change. This gradualist thinking is based on the notion of "related variety," which posits that a regional economy diversifies into products or technologies that are closely related to its existing technological competencies ("related diversification"). Thus, new technologies would be in technologically-related industries and innovation area (Frenken et al. (2007); Boschma and Iammarino (2009); Aarstad et al. (2016); Lengyel and Szakálné Kanó (2013)). A key "realist" argument advanced in favor of this gradualist approach is that major regional technological jumps to new, unrelated technologies are extremely rare. The related variety notion has been subject to a number of critiques of its methodology (Hassink et al. (2019)). Other authors have argued that its core assumptions – that innovation is determined by relatedness and diversification into areas closely related to existing competencies, and that this justifies a emphasis on spatial spread rather than large agglomerated cluster – are conceptually questionable and not supported by evidence (Bathelt and Storper (2023)).

The jury is out on these issues. There are some anecdotal examples of what looks like successful regional innovation evolution. In Rochester, NY in the US, many of the scientists and engineers from legacy firms in the optics industry stayed when those firms closed, and turned their talents to start-ups (Haller (2022)). In Europe, there appear to be some cases where regions have developed clusters in sectors such as green technologies, advanced manufacturing, chemicals, life-sciences and agrifood.[15] These include Tampere, Eindhoven, Brest, Ruhrgebiet, Limburg and Bilbao. All these regions had strong pre-existing innovation systems. Countries in Central Eastern Europe such as Poland and Slovenia have improved their innovation ecosystems.

In spite of the large corpus of literature promoting and shaping smart specialization in Europe, there has been little rigorous evaluation of its economic and innovation effects (Rodríguez and Demmler (2023); Janik et al. (2020)). Counterfactual studies generally find positive impacts for supported firms in SME and innovation schemes, though as seen before with strong heterogeneity (Ferraro et al. (2023); Banai et al. (2020); Beņkovskis et al.

(2019); World Bank (2019)).[16] It appears that there has been considerable mismatch between smart specialization goals on paper and innovation effects.[17] In addition, a number of studies have highlighted that there is little correspondence between the priorities established in smart specialisation strategies, with many regions prioritizing different combinations of unspecialized or unrelated sectors (Marrocu et al. (2022); European Commission (2021)).

4.3.4 Back to excellence: industrial policies and place-based policy

In the US, and in Europe through a reaction to the US, there is a renewed focus on industrial policy, with various terms being coined to describe this shift - from Brian Deese (2022) "modern American industrial strategy" to Rodrik (2022) "new productivism." Other concerns are focused on the green energy transition, geopolitical competition, and supply chain resilience, with a significant emphasis on national security running through all (Juhász et al. (2023); Sullivan, J. (2023)). In the US, these ideas found expression in the Bidenomics agenda (Gansauer (2024)). However, that agenda has the same tension as in European policy: the CHIPS for America fund primarily aims to re-shore high-tech manufacturing capacity by building and expanding semiconductor facilities, while the planned Regional Technology and Innovation Hubs focus on spreading innovative capacity more broadly, especially across regions outside traditional tech centers.

In contrast to the US, the EU has historically been reluctant to embrace industrial policy objectives. The commitment to a rules based open trading system, strong competition and state aid rules, and the existence of national champions in those Member States supportive of a more active industrial policy, meant that at the EU level, there was little will to develop strong industrial policy instruments. This has evolved in recent years due to the commitments of the Green Deal, the disruption of supply chains during COVID and following the Russian Invasion of Ukraine, as well as more activist industrial policies in the US and China (Dullien (2024)). A specific example is the EU's Important Projects of Common European Interest which allow Member States exemption from state aid rules when there is

a common European interest in a jointly funded venture to support investment and innovation in a particular sector. More recently, European Chips Act (2022) aims to strengthen the semiconductor ecosystem; the Critical Raw Materials Act and the Net-Zero Industry Act, proposed in 2023, address supply risks by increasing domestic production and refining of key materials and promoting clean technologies, the latter an area in which Europe has traditionally had a comparative advantage, contributing to Europe's green transition and long-term industrial resilience. The recently adopted Strategic Technologies for Europe Platform (STEP) initiative was set up by the EU to support the European industry and boost investment in critical technologies in Europe. STEP raises and steers funding to three target investment areas: digital technologies and deep-tech innovation, clean and resource-efficient technologies and biotechnologies. All of these initiatives are linked to regulatory measures in the areas of public procurement, state aid and planning that are designed to facilitate and incentivize these investments. Unlike the US, where the debate has focused on using the resources available under industrial policies to address territorial goals (Perilla and Muro (2022)), in the European Union the approach has been the opposite: how place-based innovation and business support policies can support industrial objectives. In this sense, they are delivery mechanisms for industrial policies.

All in all, the EU's innovation policy efforts take place in a political context that involves many different priorities: between gradualism and first-mover disruption; and between spatial concentration to maximize the innovation benefits that stem from agglomeration and spatial spread of the benefits of new technology-based activities as well as stimulating "innovation from below." To date, attempts to align and link different streams of innovation support across different instruments of the EU budget has been problematic. The Draghi Report and the recent Competitiveness Compass highlight the need to reshape the EU's policy toolkit. It remains to be seen how the tensions between excellence and spread, top down versus bottom up innovation, will be dealt with in the next Multiannual Financing Framework.

5 Challenges facing EU and US place-based policy

Notwithstanding the many differences in EU context compared to the US and to the policy design and implementation process we have described in previous sections, there are some common features of EU and US approaches to place-based policymaking and implementation that cut across the two continents. We discuss these below.

5.1 Co-financing, matching grants, co-implementation

Cohesion Policy is implemented through matching grants. The matching (or co-financing) takes place at the programmatic rather than project level, leaving flexibility to Member States and regions to determine the level of support to individual projects. In most Member States, most of the co-financing comes from national or regional sources, depending on the distribution of revenue collection powers. Most Member States apply subnational borrowing rules which limit alternative sources of revenue. Increasingly, public expenditure is being replaced by private expenditure as a source of co-financing in business development and innovation. Co-financing rates are modulated according to the level of development of a program area and agreed at program approval. Average co-financing rates are around 75 per cent, that is to say expenditure is reimbursed at a level of 75 per cent. In poorer areas, these rates can rise to 85 per cent. The lowest co-financing rates in rich regions is around 35 per cent. For certain investment priorities, parts of programs can rise to 100 per cent.

Government quality is a key determinant of administrative success in reaching the goals of policy (Mendez and Bachtler (2022)). In this light, the EU has a strong focus on technical assistance and capacity building in Cohesion Policy, particularly in lower capacity regions. Up to 4 per cent of the resources allocated can be used by Member States and regions to support the implementation of programs, carry out audit, communication and evaluation activities. As a result, many Member States have set up dedicated departments at national or regional level responsible for the implementation of the policy. Over time these have

become an integral part of government.

In the US, EDA and Small Business Administration programs generally require applicants to match funds from non-federal sources - state/local governments, philanthropy, or the private sector - to qualify for grants (Hanson et al. (2024)). Although there is less concern about institutional capacity in the US than in the EU, these requirements can burden small or rural communities lacking financial and administrative resources. Recently initiatives like the EDA's Recompete Pilot Program have eliminated matching requirements altogether. Place-based funds are mainly awarded through competitive or quasi-competitive grants, favoring regions with stronger networks or experience. Recognizing that these grants offer large rewards but low probabilities of success, policymakers have introduced multi-stage competitions with both planning and implementation grants. The planning phase helps regions build capabilities to attract other investors even if they do not secure federal funding (Haskins et al. (2023)). Although not all applicants receive implementation grants, this multi-stage process fosters stronger regional planning capacity, a key asset for long-term development.

Table 3: Finance, implementation, and governance compared.

Area	EU	US
Legislative framework	Single legal framework	Patchwork of acts and initiatives
Center-local relationship	Contractualisation through programs negotiated between EU and MS or regional level	Variable by program
Management framework	Strongly constraining with control of expenditure by EU and MS level. Little scope for experimentation.	National and local public accounting rules. Significant scope for experimentation.
Conditionalities	Large number of fiduciary, economic governance, performance, and policy conditionalities	Lower level of conditionalities tied to specific programs; more focus on conditionalities in Biden Acts. Decentralised.
Governance & partnership	Centrally regulated and promoted	Decentralised
Capacity & technical assistance	Extensive technical assistance, dedicated platforms, and involvement of IFIs	Additional planning grants becoming the norm
Intermediaries	Generally public sector (regional and local government) led. Ecosystem of private consultancies.	States and local government; NGOs and groups of stakeholders (universities, etc.). Ecosystem of private consultancies.

5.2 Complexity, fragmentation, information impactedness

The complexity and variety of programs of both Europe and the US is obvious from the review in this paper. Any set of policies this diverse and complex is at high risk of ineffectiveness, as clear goals and procedures to reach them are lost in complex processes; and even with valiant attempts at measuring and monitoring, information asymmetries and conflicting interest affect the entire ecology of actors, agencies, interest groups, at different geographical and institutional scales. This creates a high risk that interventions can be justified in reference to so many goals, that virtually any intervention can be justified somehow, no matter how little its effectiveness. Paradoxically, attempts to tailor interventions by integrating them at the place-scale, also make them less visible and complex to understand and compare.

In Europe, these issues are behind the use of a single legal framework and long-term budgeting, with a range of legal defined instruments with eligibility rules that set out the scope, earmarking for specific goals, a unified assessment procedure and other important conditions of implementation. This reduces uncertainty, increases accountability and protection of public financial interests. On the downside, this creates a significant administrative burden for administrations and beneficiaries and a demand for specialist consultants to help project promoters navigate a highly complex application and payment process. This has in turn has led to new simplified payment schemes, which require upfront work to prepare by managing bodies. The result is that low capacity regions have greater difficulty in making use of them. Finally, overregulation and sanctions can create a culture of risk aversion which slows initiative and implementation, often in the weakest areas, where the funds are needed most. Moreover, EU administrative procedures and costs, for auditing and managing Cohesion policy, are considered complex, high and difficult (Bachtler et al. (2014)). Furthermore, the focus on accountability for funding and reporting to higher levels creates a range of principal agent problems that are difficult to resolve.

In the US, by contrast, many argue that the fragmented and somewhat competitive approach for implementing federal policies is thought to reward experimentation, using a

Tiebout-style public choice logic. In parallel to the European complexity problem. However, the US lacks an evaluation literature that rigorously demonstrates that the federal government absorbs good ideas, eliminates bad ones, and then uses the tested "best practices" in its future programs. Furthermore, there is limited evidence that best practice guides policy imitation and borrowing among states and localities.

5.3 The rise of non-governmental ecosystems and contractors

In the US, implementation through complex negotiations and competitions between different scales of government has generated large ecosystems of private sector intermediaries responsible for the provision of services and consultancy. In Europe the situation is more structured with less competition and more focus on navigating the obligations of the legal framework, often carried out for the bodies responsible for implementing the funds. For example, in the 2014-2020 period more than 3000 evaluations were carried out at different levels by the bodies responsible for managing the funds. Consultants are often employed by project beneficiaries to help navigate the application process, as well as the respect of relevant EU and national legislation in the areas of environment, public procurement and state aid. In richer regions, many local authorities and other public actors have their own staff, but in less developed regions much of this work is externalized. Many public authorities have developed extension services to help applicant SMEs, often run out of cluster organizations or development agencies. However, there is an increasing use of vouchers to encourage a market for business advice.

In the US, there is also a large private-sector and NGO consulting business, including in some cases university-based applied research contractors, who are called in by local governments - including some large cities and states - to respond to federal competitions. This differs from the more systematic approach taken under, for example, the Clean Air Act, which resembles the European approach with its clear regulatory standards and long-term horizons, and where governments generally build up considerable internal technical capac-

ity to prepare regional clean air plans. Though they may have recourse to consultants for technical issues, the core of the work is done by stable public bureaucracies. In the type of place-based policies considered here, that is generally not the case.

The complexity of place-based policy is driven by the breadth of issues that are addressed, regulatory requirements in relation to policy implementation (procurement, state aid, environmental legislation) and the range of different actors. The need to operate in financially and institutionally weak lagging or distressed areas and communities that have little capacity compounds the risks. Proliferating principal-agent problems encourage policy managers to increase indicators, metrics and reporting requirements that in turn creates a need for more external experts. Furthermore, such policies require consent and cannot be steered without public participation. There is therefore also a risk that the external expertise is instrumentalized by policy managers to achieve political objectives and local leadership, often stymying attempts at stakeholder involvement and transparency.

As a result, in both Europe and the US there is a risk of capture of both federal policy and local responses by these intermediaries (whether private or public), who can exhibit rent-seeking behavior all along the policy cycle and have become lobbies for continuing their work. Place-based policy design can thus be afflicted by major systemic hazards that need to be addressed at the point of policy design.

Table 4: Programming and implementation framework compared.

Area	EU	US
Policy competence	Treaty objective	Local governments and states are the primary agents with less federal intervention.
Budget determination	EU and MS level. Tradition of fiscal equalisation and regional policy in many MS. MS negotiation for MFF (juste retour).	Federal budget negotiations.
Revenue	Largely funded through EU or national budgets. Cofinanced with national and regional public and private expenditure.	Federal funding and cofinancing. Local taxes.
Time-horizon	Multiannual investment programs.	Tied to time-limited policy initiatives.
Allocation mechanisms	Objective criteria for regional support; targeted at regional level (NUTs II).	Emphasis on local and regional competition. Different detailed targeting mechanisms.
Relation to other policies	Links with other EU policy in goal setting and implementation. EU-level regional state aid framework.	Little federal regulation of investment incentives.
Policy mix	Focus on integrated programming. Interventions reflect level of development. Range of territorial approaches.	Largely sectoral.

5.4 Do we understand fundamental impacts? Indicators, concepts, evaluation deficits

Since its inception, Cohesion Policy has had a strong focus on monitoring and evaluation. The strong focus on accountability in the financial rules governing the EU budget, the activity of the European Court of auditors as well as the need to communicate the achievements of the policy has led to the emergence of a very robust system of monitoring of financial, output and result indicators. This is built on a framework of common indicators defined in the regulatory framework, electronic transmission to the European Commission and publication of data on an Open Data website. The robustness of the reported data is checked as part of the setting up of management and control systems. Furthermore Member States are required to publish lists of projects and beneficiaries. Aggregated data is published as part of the annual reporting of the Commission to the Parliament and communication purposes.

Traditionally, impact assessment at the European level has been undertaken through a range of models used directly by Commission staff or by researchers working with the Commission. In the last 15 years counterfactual approaches have been increasingly used. Due to data limitations this work has focused on GDP and employment outcomes at regional and aggregate levels. This has meant that little work has been done on instrument design and effects at more granular levels. A particular challenge is collecting beneficiary data at European level. The last five years have seen a significant increase in the number of academic studies at national level looking at specific schemes based on matched data from programs and national sources such as statistical offices, tax authorities or company registers. However, the availability of harmonized data is a long way behind the US. As a result, an extensive literature on conditioning factors has emerged, but less on the institutional features and effectiveness of specific instruments. The homogeneity of implementation mechanisms under Cohesion Policy and the continuity of programming over financing periods has reduced the scope for natural experiments. Both the Directorates General for Regional Policy and Employment Directorate of the European Commission (equivalent to US federal departments)

are currently launching pilots on randomized experiments.

Table 5: Monitoring, Evaluation, and Assessment compared.

Area	**EU**	**US**
Monitoring	Very robust monitoring frameworks	Light touch central monitoring
Evaluation	Extensive evaluation culture, mainly theory-based and modelling, but increasingly counterfactual	Extensive local evaluations, often quantitative; strong academic evaluation, and some departmental evaluation
Impact assessment	Mainly focused on regional GDP and employment outcomes at aggregate level. Strong attention to conditioning factors.	Focus on local employment outcomes. Strong value for money perspective.

The differences in the design of place based policies has also influenced the focus of academic work on policy impact. Five factors have been particularly challenging. The first relates to the definition of the treatment. Cohesion Policy, as we have seen, is a complex mix of different instruments combining different types of investment in a given region. As a result policy is often modeled as a uniform budgetary transfer to a given region, while in fact there is great heterogeneity in investment types across different regions. Secondly, there are significant problems of endogeneity as the support provided by Cohesion Policy is to a large extent calculated on the basis of the level of GDP per capita of the recipient countries and regions. Accordingly, there is a strong negative relationship between the magnitude of the policy injection and GDP per capita. Third, in many regions funding has been continuous for many years making it hard to identify control groups. Fourth, the beneficiaries of the policy are often supported by similar national policies, in particular in richer regions where

the EU contribution is lower. Finally, the existence of spatial spillovers implies that the growth rate in a given country or region is affected by interventions implemented in other places. This has been particularly significant through trade and FDI channels as Member States have been integrated into the EU Single Market (Berkowitz et al. (2020)).

When evaluation research is carried out, i.e. on a program-by-program basis, or that investigates discrete causes of catching up or resilience, the complexity problem comes back. Development is an extremely noisy complex process, and thus, evaluating what a place-based policy does requires that research isolate the effects of the policy from the complex set of other causes of development. Even without framing evaluation research with respect to fundamentals – as we urge above – challenges to research abound: endogeneity; too many possible interaction terms; non-linear effects; sample limitation or bias; omitted variable bias; non-standard area sizes; and so on. It is striking that there is little literature that provides us solid comparative panel evidence on what works and what does not work to overcome underdevelopment or to exit from distress, or to form a cluster.

A general equilibrium approach requires accounting for effects in both richer, more productive regions and cities and the less developed regions and cities to which transfers are made. Following von Ehrlich (2024) we can identify three effects. First, returns on public investment in beneficiary regions could come at the expense of returns in richer regions, although the impact on welfare depends on the balance between agglomeration and congestion externalities (Fajgelbaum and Gaubert (2020); Henkel et al. (2021)). Second, trade linkages in the European Single market can produce benefits in more productive regions. Third, there are potentially channels of spatial spillovers to nearby regions. A better understanding of these dynamics would help better understand potential trade-offs in the design of different place-based policy instruments. Finally, while there is now an extensive counterfactual literature on policy effectiveness, it does not provide substantive principled guidance on how to implement policy in the many different contexts we have referred to in this paper. Procedural flexibility and negotiation as a way of being sensitive to context carry the risk of losing

sight of the goals of the policy. With new data sources, and the possibility to match beneficiary and administrative data is a particularly promising avenue, it is now within reach to structure a future generation of evaluation research that combines greater context sensitivity combined with rigor.

6 Conclusion: Lessons for Place-based Policy

Comparing integration and convergence experiences is highly sensitive to scale. It could be argued that within the most urbanized US states, there are significant differences in income across regions. Nonetheless, if we combine the view from across Europe and within its Member States, we see little that alters fundamental long-term spatial allocations in the way that the American experience of Sunbelt and California development did in the US. A possible implication is that the geographical responsiveness of the European and the US economies to changes in structural forces may be fundamentally different. It is with this in mind that EU efforts at convergence are considered to be essential, but these efforts rely less on promoting large-scale population redistribution than was the case in the historical US experience. Instead, they center on spreading the fundamentals of productivity improvements to support catch-up development, including infrastructure, capital mobility, education, entrepreneurship and modernization of governance.

Along these lines, little research to date has addressed the question of whether place-based policies on both continents make fundamental long-term differences in the pattern of economic development. The kinds of problems and opportunities of the place-based policy field generally unfold over periods of about a half century. The half-century time scale corresponds to industrial revolutions that generate major structural shocks to the economy and its geography. Sometimes lagging (or underdevelopment) is an even longer-term phenomenon. And convergence and integration unfold against both of these forces and in long-historical time. Distress and high-prosperity innovation/cluster formation basically follow the rhythms

of industrial revolutions, as the transition in the 1980s from the Manufacturing Age to the Third Industrial Revolution generated distinctive patterns of income, agglomeration, employment and migration. Other shocks, such as globalization through policy liberalization and transport/logistics improvements, also tend to unfold over decades. In a similar manner, the EU's commitment to decarbonisation has set goals for 2050. Research that seeks to inform rigorously on the causes of distress or prosperity rarely uses these time horizons.

The point made above, that longer time horizons and broader historical-integrative models for evaluation would assist in understanding whether place-based policies make fundamental differences in spatial-economic development patterns can be applied to the future as well as the past. As it stands, spatial allocation academic research has mostly centered on a debate between "too much concentration" and "not enough concentration" of development (e.g. Duranton and Puga (2023); Fajgelbaum and Gaubert (2020)). One of the main arguments for place-based policies is the possibility of moving from a lower-level to a higher-level spatial equilibrium in lagging and distressed regions (Venables (2024)). As our comparisons above have shown, such equilibria are deeply embedded in historical and institutional contexts and it would be helpful to understand the conditions under which such shifts were achieved in both the EU and the US.

Ideally, future efforts in spatial economics and allied disciplines could help policymakers better frame their policies in terms of three fundamental issues. First, whether it is possible to shape an alternative spatial allocation for Europe, a "goldilocks zone" of spatial inequalities consisting of spatial allocations that are "close enough" to aggregate output efficiency at any given time, while avoiding negative societal externalities and dynamic effects of inequalities on people (e.g. inter-generational spatialized social mobility traps; see Chetty et al. (2014); Connor and Storper (2020)).[18] Second, whether many regions outside the innovation core can become a participant in a world-class continental innovation economy, where there are many middle-sized centers of excellence, hence reconciling excellence with convergence. Third, whether increased linkages within the Single Market will increase income and employment

without scale and concentration effects.

In addition, in both the US and Europe, it appears from experience that affecting long-term development processes, whether getting out of distress or managing long-term growth after initial partial catch-up, involve a "narrow corridor" that brings together the hard and soft (conditional, institutional, learning) conditions for durable turnarounds in the economic performance of lagging and distressed regions, and in building the spatial foundations of prosperity. Ideally, future research would generate and test models with the breadth of interactive conditions, large enough samples, and long enough time horizons to understand this corridor.

As the comparison above of implementation of place-based policies in the US and EU, their implementation is complex and subject to many policy design challenges: how to distribute the responsibility for raising funding across different levels of government, how to determine allocation and targeting mechanisms, predictable long-term finance on the basis of need or competitive bidding, to what extent should policy focus on capacity? The EU and US have taken different paths reflecting diverging institutional structures, distribution of competencies and policy objectives. Principal agent problems abound. The EU has followed a top-down path focusing on accountability, reporting and supervision with a strong legal framework. This in turn has created further complexity and the need to help weaker regions and cities apply the rules. In contrast, the US has a highly decentralized approach, with great flexibility for experimentation that makes policy results difficult to capture, and long-term objectives difficult to achieve. Common to both is the emergence of a complex ecosystem of intermediaries – more private-sector based in the US and more public-sector based in the EU – with their own goals. We know far too little about how this range of challenges affects the efficiency of the place-based policy supply chain and the effectiveness of the associated interventions. A closer examination of incentive structures, rent-seeking and behavioral insights could provide insights for more impactful policy (OECD (2018)).

Notes

[1]One exception: Reconstruction (1965-77) was a federal integration effort. Although its end allowed White power and plantation agrarianism to be revived which restricted capital and labor mobility until WWII.

[2]Despite its late-18th-century commitment to integration, the US evolved this gradually, paralleling Europe. Monetary unification around the dollar emerged in 1836, accompanied by territorial expansion (via annexation and forced migration of indigenous peoples) that opened land to settlers. Key institutions followed, including a central bank (1913) and broader federal taxing powers via the Sixteenth Amendment (1913). Although the Constitution limits federal authority, New Deal policies used enhanced fiscal and monetary tools to align state laws with federal aims, effectively expanding federal influence over integration - a dynamic still contested in Congress and the courts (Gerstle (2016)).

[3]The 1964 Civil Rights Act made staying in the South more attractive for Black Americans, reversing their mass migration north since 1915. This boosted the Southern workforce - already bolstered by rural White labor - later expanded further by White migrants from the deindustrializing North.

[4]This relocation was driven by the 1947 Taft-Hartley amendments (fueling state-level wage and labor rule competition), widespread adoption of air conditioning (late 1940s for businesses, mid-1950s for homes), racial desegregation via Brown vs. Board of Education (1954), which made the South more attractive for investment and tapped into its abundant labor supply, and postwar transport expansions (including the 1954 Interstate Highway authorization).

[5]Policy's role in West Coast high-tech growth is debated. Silicon Valley lacked a formal 'cluster policy,' though government R&D and defense spending helped - factors present elsewhere, so it's not seen as a direct policy outcome. LA's aerospace sector had heavier WWII defense investment yet also arose from earlier commercial aviation successes.

[6]Regarding any possible long-term and aggregate spatial effects of deliberate policies to affect the geography of innovation, in the 20th century, defense procurement and the space race did shape some tech clusters (e.g. Florida's Space Coast, Huntsville Alabama or Toulouse in the EU), but many major US centers (Bay Area, Boston, DC, NYC, San Francisco, Dallas, Austin, Seattle) arose mainly from breakthroughs by key firms and existing RD ecosystems rather than explicit policy. Cases like Douglas Aircraft (LA) or Fairchild (Bay Area) show how a 'trigger economy' at the right time can cement a cluster. While policies can provide essential conditions, large contracts alone cannot replicate today's open, commercially driven innovation ecologies.

[7]Even with an EU budget under 1 per cent of GDP, the need to deliver European public goods justifies

Cohesion spending. The Treaty permits otherwise prohibited state aid for economic development, linking regional aid criteria with Cohesion eligibility so both work in tandem.

[8]In the EU, Cohesion Policy's redistribution is partly offset by the Common Agricultural Policy, returning funds to wealthier members under "juste retour." The US lacks a comparable mechanism: federal spending (defense, social security, etc.) is not tied to regional disparities, intensifying inequalities and political tensions.

[9]However, a Member State supposedly must respect the allocation to each of the three categories of regions to ensure that the resources are concentrated on the least developed regions in accordance with the EU Treaty objectives. Programs can, however, be modified during their implementation.

[10]These changes also included new conditionalities under the "Two-Pack" (budget coordination and financial surveillance) and the "Six-Pack" (budget discipline in the Stability and Growth Pact plus a macroeconomic imbalance procedure). This conditionality also supported the delivery of structural reforms by linking CP to country-specific recommendations. Although opposed by the European Parliament and the Committee of the Regions, macroeconomic conditionality was included in the final MFF (Berkowitz et al. (2015)).

[11]Of the 29 definitions, 16 rely solely on economic indicators and 13 add social well-being measures. Most use counties, though some reference census tracts, zip codes, or local entities, and six have no geographic unit. This variation reflects different agency goals - e.g. while EDA emphasizes economic factors (employment, income), HUD includes social indicators.

[12]"In recent decades, many countries - sometimes with lower wages, environmental standards, or taxes - have increasingly competed with Europe in low-skill and low-value added industry segments. The fact that other countries do not all share the same living, social, environmental, tax and other standards as Europe means that companies can use these differences to their competitive advantage. This has led to factory closures, job losses or downward pressure on workers' pay and conditions. Companies which are unable to compete with more productive or cheaper foreign counterparts close, leaving a lasting impact on those laid off, their families and the wider region." (Commission (2017)).

[13]The ex-post evaluation of Objective 2 (2000-2006) found that support for distressed industrial areas boosted growth and future potential, improving social cohesion and territorial balance. Because funds were concentrated on small areas with limited budgets, much went to environmental and community projects, enhancing local attractiveness and engagement (Commission (2010)). Some studies, however, warn of leakage and displacement in small, isolated industrial communities (Armstrong et al. (2001)), while weak administrative capacity and limited civic culture have hindered effective regeneration - especially in Central and Eastern Europe and single-industry regions.

[14]While it is too early to assess quantitative impact, initial evaluations indicate that a number of features

of the approach have been effective: the targeted planning approach, the strong community involvement, the comprehensive and flexible availability of funding covering all investment areas through one fund.

[15]Amsterdam, Berlin, Dublin, Paris, Stockholm, Barcelona and Munich also have growing tech clusters reflected in a significant concentration of talent, generation of unicorns, and a strong start-up ecosystem. In many poorer Member States and regions, Cohesion Policy has played an important part in the development of tech hubs in cities like Warsaw, Bucharest, Sofia and Tallinn.

[16]See annex 1 for more details.

[17]Several studies highlighted the need for institutional capacity (Grillitsch (2016)), their similarity in spite of significant regional differences (Cataldo et al. (2022)), the path dependence of regional innovation ecosystems (Tsipouri (2017)), and weaknesses in the approach to the entrepreneurial discovery process (Giustolisi et al. (2022)); A 2017 Commission review of smart specialization noted several additional challenges. In many less-developed Member States, national research and innovation policies - emphasizing research infrastructure and scientific excellence - often clashed with place-based, private-sector innovation priorities. Weak regional innovation ecosystems compounded these issues. Many strategies were also too inward-looking, neglecting innovation absorption via value chains, multinational firms, and synergies in the Single Market and European Research Area.

[18]This point refers to the growing literature on 'place effects' on people that are dynamic, biographical, and intergenerational (e.g. Chetty, etc.). Optimal spatial allocation models have difficulty incorporating these dynamic interpersonal and inter-group effects, as well as political economy effects of spatial inequality (e.g. political and policy polarization that are growth-reducing).

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7 Appendix A. Evidence on the impact of Cohesion Policy

Earlier studies such as Dall'erba and Le Gallo (2008) and Gallo et al. (2011) found little evidence of spatial spillovers. However, Amendolagine et al. (2024) use a heterogeneous panel model to accommodate spatial dependence and spillover effects and demonstrate that Cohesion Policy generates substantial heterogeneous spatial spillovers and the positive effects outside target regions. Confirming earlier studies, strong spillover effects are channeled by trade linkages to richer central regions. Maucorps et al. (2023), using structural equation modeling, identifies positive and substantial spillovers from EU Cohesion Policy from less developed areas. Blouri and Ehrlich (2020) use a general equilibrium model calibrated for the regions of the EU in order to focus on three main channels: wage subsidies, local productivity amenities, and local transportation infrastructure. They suggest that local transportation is the most likely to create positive spillovers. Crucitti et al. (2023) use a dynamic spatial general equilibrium to model regional contributions through taxes and expenditure in six sectors for each of the NUTS2 regions in the EU. The analysis suggests that cohesion policy programs had a positive and significant impact. The impact is higher in less developed regions, but in the long run, it is also positive in richer Member States due to international spillovers. In conclusion, these studies suggest that there are significant trade spillovers in the context of Cohesion policy. However, there is much less conclusive evidence on the dynamics of congestion and agglomeration effects.

A number of studies have focused on infrastructure and highlight the complexity of assessing the localized impact of network investment. As a result, the effects of transport investment are highly heterogeneous (Crescenzi and Rodríguez-Pose (2012)). Different studies have argued that returns on motorway investment offer low returns compared to secondary roads (Crescenzi et al. (2016)), while others see more positive results (Bo and Florio (2012)). A key feature of transport investment is that it lowers transport costs for regional actors, but also for competitors outside the region. As a result large-scale network infrastructure is likely to benefit those places which are able to exploit agglomeration economies (Puga (2008)). But in some cases, such investments have allowed poorer regions to exploit locational and cost advantages in industries such as vehicle manufacturing or the aeronautics industry.

In addition to investment in public infrastructure, Cohesion Policy has provided considerable support to SMEs, with exceptional support for large companies. For example, in the 2007-2013 period support was estimated at EUR 6 billion, representing 20 per cent of all ERDF spending on direct enterprise support in the EU-28, with the remainder going to SMEs. A review of a mix of EU and national counterfactual evaluations by the European Commission in 2012 concluded that for large enterprises there is little evidence of long-term benefits due to deadweight effects (Loi and Rodrigues (2012)). One area of investment which shows more positive outcomes are research investments with links to local SMEs. The regulatory framework was therefore adjusted in the 2014-2020 period. An evaluation undertaken in 2015 by the Commission concluded that in only 20 per cent of cases, ERDF support was among the main causes of project implementation. In 50 per cent of cases, ERDF support was successful in inducing changes in corporate behavior, particularly influencing the timing

and the scope of the implemented projects. In 30 per cent of cases, ERDF support had little influence on the behavior of large enterprises (Commission (2016)). Furthermore, as the resources came from the EU budget there was considerable political concern about relocation from richer to poorer Member and the durability of investment.

Bachtrögler et al. (2020) show that the average treatment effect on supported (treated) firms (ATT) is relatively large in terms of boosting both value added and employment growth. However, outcomes are heterogeneous and the impact on productivity is smaller across countries and not always significant. Crescenzi et al. (2020) studying an Italian SME scheme found only positive employment effects. Banai et al. (2020) identified a significant positive effect on the number of SME employees, sales revenue, gross value added in Hungary. However, the labor productivity of enterprises was not significantly affected by any of the support schemes. Beņkovskis et al. (2019) suggest that projects co-financed by the ERDF increase firms' employment, turnover and capital stock per employee immediately, while it raises their productivity only two years after the launch of the projects. ERDF beneficiaries that are initially less productive, larger, less capital intensive and more financially leveraged enjoy larger productivity gains. Finally, studies by the World Bank (2019) and Statistics of Poland's SME and innovation support programs over 2007-13 finds similar results - there are positive impacts on firm employment, sales, value-added and exports. In contrast, there is mixed evidence about the impacts on productivity, depending on the productivity measure used. They suggest that the lack of impact on productivity enhancing investment may be partially driven by a crowding-out effect if firms lack the capacity to absorb capital efficiently. Instead of increasing investment, firms may choose to redirect private funds towards other purposes (for example, increase hiring).

Workforce training and skills. The fund that invests in workforce development – the European Social Fund (ESF) – had a budget of around EUR 75bn for the period 2014-2020. The results of an updated meta-analysis of the available ESF and YEI counterfactual impact evaluations carried out in the 27 Member States and the UK showed that participants in ESF/YEI measures had, on average over the 2014–2020 period, a higher likelihood of being in employment afterwards than comparable non-participants, amounting to 6–8 pp (Pompili et al. (2023)). Giua et al. (2022) provide evidence that Cohesion Policy projects have had a positive effect on the wage gaps between local employees and immigrants. Fusaro and Scandurra (2023) find positive impact on employment of the European Social Fund on youth education and employment but highlight that such results are strongly influenced by local specialization in high-skilled activities. Furthermore, studies suggest that there is division in education outcomes between those with low and upper secondary education that could potentially worsen pre-existing inequality in the long run. Crescenzi et al. (2020) concluded that learning mobility programs can reinforce skill matching only if problems of beneficiary self-selection can be addressed. Biedka et al. (2022) examine the impact of Cohesion Policy support for human capital at municipal level in Poland. This has a positive effect on local revenues, both during and after the intervention. However, although the authors do not find direct evidence that cohesion policy stimulates out migration of skilled people in Polish municipalities, there is also no sign that EU funded investment in human capital prevents depopulation of the least developed areas in the country.

Migration and sorting. There is relatively little evidence on the impact of Cohesion Policy support on the retention of skilled workers in the context of outmigration. Given

the urban wage premium in large European cities (Ahrend et al. (2014)), the pull factors are potentially significant. The European Commission recently adopted a communication "Harnessing Talent in Europe's regions" (European Commission (2023)) which addressed the challenge of encouraging the development and retention of highly skilled individuals, and the Draghi and Letta Reports both refer to a "right to stay." This certainly contrasts with historical American attitudes and practices that emphasize mobility, but does find a recent echo in the US, where lower levels of geographical mobility are leading some to rethink the emphasis on leaving to opportunity as a solution to place-based problems. Note, however, that these concerns in both Europe and the USA probably mostly concern not the highly-skilled, but other population groups. And that policies to encourage or enable people to stay may conflict with spatial allocation concerns (see conclusion).

Many different regional characteristics have also conditioned the effectiveness of Cohesion Policy. These include human capital endowments (Becker et al. (2012), Fratesi and Perucca (2019)), settlement structure (Gagliardi and Percoco (2017)), industrial structure (Cappelen et al. (2003), Percoco (2017)), population density (Albanese et al. (2021)). This heterogeneity has been used as the basis to argue for the need to place-tailor policies (OECD (2009); Barca (2009); Iammarino et al. (2019); McCann (2023)), but it also raises the question of policy mix.

8 Appendix B. Full history of European place-based policy objectives

Period	Objectives	Geographical Coverage
1988-1993	Promoting development and adjustment of lagging regions	< 75% EU gdp/per head
	Converting areas seriously affected by industrial decline	Industrial regions
	Combating long-term unemployment	All regions
	Facilitating the occupational integration of young people	All regions
	Speeding up the adjustment of agricultural structures	All regions
	Promoting the development of rural areas	Rural areas
	10 community initiatives	Targetted according to theme
1994-1999	Promoting development and adjustment of lagging regions	< 75% EU gdp/per head
	Converting areas seriously affected by industrial decline	Industrial regions
	Combating long-term unemployment and supporting (young) people into the labor market	All regions
	Facilitating the adaptation of workers to industrial changes and changes in production systems	All regions
	Speeding up the adjustment of agricultural structures (alongside reform of CAP)	All regions
	Facilitating the development and adjustment of rural areas	Rural areas
	12 community initiatives	Targetted according to theme
2000-2006	Promoting the development and adjustment of lagging regions	< 75% EU gdp/per head
	Supporting economic and social conversion of areas facing structural difficulties	Industrial , rural and urban areas
	Supporting the adaptation and modernisation of policies and systems of education, training and employment	All regions
	4 community initiatives	Targetted according to theme
2007-2013	Convergence: Speeding convergence of least-developed Member States and regions	< 75% EU gdp/per head
	Competitiveness and employment: Strengthening regions' competitiveness and attractiveness as well as employment	All developed regions > 75% EU gdp/per head
	Territorial cooperation: Strengthening cross-border cooperation, transnational and interregional cooperation and exchange of experience at the appropriate territorial level	Border regions
2014-2020	Strengthening research, technological development and innovation	All regions
	Enhancing access to, and use and quality of, ICT	All regions
	Enhancing the competitiveness of SMEs	All regions
	Supporting the shift towards a low-carbon economy in all sectors	All regions
	Promoting climate change adaptation, risk prevention and management	All regions
	Preserving and the environment and promoting resource efficiency	All regions
	Sustainable transport and bottlenecks in key network infrastructures	All regions
	Sustainable and quality employment and supporting labour mobility	All regions
	Social inclusion, combating poverty and discrimination	All regions
	Investing in education, training and vocational training for skills and lifelong learning	All regions
	Enhancing institutional capacity of public authorities and stakeholders and efficient public administration	All regions
	European territorial cooperation	Border regions
2021-2027	Competitive and smarter Europe	All regions
	Greener, transitioning to net-zero economy, and resilient Europe	All regions
	More connected Europe	All regions
	More social and inclusive Europe	All regions
	Europe closer to citizens	All regions
	European territorial cooperation	Border regions
	Just transition	Regions dependent on fossil fuel production and energy intenstive industries

Figure 17: Full history of European place-based policy objectives