

CHAPTER 4

REGIONAL CONVERGENCE AND INNOVATION POLICIES IN THE EUROPEAN UNION

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Introduction

The European Union, as the most integrated part of the European continent, has a large and diverse experience in implementing regional policy, which is of great importance for other countries and regions of the world.

Today, the regional policy pursued by the European Union (called the cohesion policy) has become a permanent factor, without which full-fledged European integration is unthinkable. Irregularities in economic and social development exacerbate to the utmost the problem of ensuring unity and interaction, political cohesion. The methods and tools of public intervention in these areas largely determine the future of the Union itself.

The regional policy of the EU is aimed at improving the welfare of the EU regions and regional convergence - the convergence of regions in terms of socio-economic development. This will bring the regions and citizens of the European Union together. This equalization is carried out with the help of the redistribution of budgetary funds between the regions for the policy purposes indicated for the program period. The general purpose of such a policy is not only the harmonious development of the regions and the development of further integration processes, but also the increase in the competitiveness of the European Union as a whole in the world market.

As the experience of the EU shows, few regions have managed to overcome their structural weaknesses and the middle income trap, moving into the category of developed regions with sustainable productive potential, able to compete in the international market. The solution has been found – today, more than ever, economic development and convergence of regions is facilitated by a regional

policy based on supporting innovation. Innovation allows for the rapid growth of the economy of a backward region, as well as maintaining high value added and overcoming the middle income trap in regions where the pace of economic development has slowed down. The innovation policy is a tool for achieving the objectives of the EU regional policy.

The article shows the conceptual foundations of the regional innovation policy of the EU. The concept of regional innovation systems (RIS) helps in the analysis of the factors influencing the convergence of regions. The concept of "smart specialization", which is a logical continuation of the RIS approach, has become the paradigm of EU regional policy already in the program period 2014-2020. "Smart specialization" aims to select a limited number of priority areas for investment, focusing on the strengths and advantages of the region.

The data of the EU regional policy for the past program periods, including 2021, are analyzed, which confirm that those countries that used innovation as the main lever for development (for example, Ireland) have reached the first positions in terms of GDP per capita in the EU in a very short time .

The conditions for the growth of regions with different levels of economic development are indicated. In general, the principles of the regional innovation policy of the EU are outlined - selectivity, diversity and experimentation.

Innovation is a source of growth and a tool for solving global problems such as social inequality and climate change. Regions are increasingly striving to contribute to economic development by supporting innovation. At the same time, the strategies and instruments of innovation policy are focused on developing the strengths of the region. The main objective of regional policy is to provide favorable conditions for the development of entrepreneurship and job creation.

The purpose of this article is to analyze the strategies and experience of the European Union innovation policy: to what extent and why the EU innovation policy has contributed (or not) to regional convergence, and to propose new approaches for the current (2021-2027) and next program periods.

Studies of regional innovation policy are closely related to studies of regional innovation systems (Regional innovation systems, RIS) (Cooke, 1992). The RIS approach appeared in the 1990s and was associated both with developments in National Innovation Systems (NIS), as well as with developments in theories of economic geography and cluster theory. The NIS approach emphasizes the distinctive nature of the innovation process of each individual country or region. The post-Schumpeterian direction of the evolutionary school (Nelson and Winter, 1982) emphasizes the dynamic nature of economic changes caused by the introduction of innovations. Interactive learning theories (Lundvall and Johnson, 1994) understand innovation as the result of a continuous learning process in which many actors (firms, universities, technology centers) take part.

On the other hand, since the 1980s, several theories of the school of economic geography have been developed that also emphasize the importance of innovation for the competitiveness of regions: the theory of industrial regions (Becattini, 1990), the theory of flexible specialization (Scott, 1988), or the theory of regional innovation systems (Morgan, 1997). All of these theories can be labeled as territorial or locally oriented, in the sense that they emphasize the determining nature of local factors influencing regional development (institutions, technologies, external relations). The role of local factors is also well represented in the cluster theory developed, in particular, by Porter, who also influenced both research on regional innovation systems and regional innovation policy (Porter, 2000). According to this point of view, each region not only has its own trajectory of economic development, but also requires a policy that takes into account its characteristics.

The concepts of NIS and RIS are based on political intervention during system crises. Unlike neoclassical economic theory, the evolutionary approach is not focused on crises, which are the impetus for the development of policy in the field of science and technology, but focuses on the need to prevent system crises. This approach is based on the understanding that the learning process necessary for innovation is the result of the interactions of numerous agencies and institutions of the system (Metcalfé and Georghiou, 1997). The interaction between universities and enterprises is not always sufficiently coordinated, and

sometimes even absent. When this happens, political intervention is required.

Thus, the concept of regional innovation systems defines a different approach to innovation policy, making it more diverse and complex. There is a wide range of different tools that are aimed at creating and developing innovative enterprises. Among them, it is necessary to highlight the creation of infrastructure - technology parks, technology centers, innovation centers (innovation agencies). It is also important to develop cooperation between the participants of the innovation system, as well as to coordinate such interaction. In this sense, structures that encourage collaboration between businesses and universities are useful tools. We are talking about joint projects, research mobility, etc.

The RIS approach is consistent with and is a logical extension of smart specialization (smart specialization/smart specialization strategies, 3S), a concept that has recently become the dominant paradigm of EU regional innovation policy. "Smart specialization" linked innovation policy with regional development policy. This concept was formulated by the expert group of the European Commission "Knowledge for Growth" as a strategy for the innovative development of regions, involving the most effective use of their features to develop competitive advantages. Smart Specialization combines industrial, innovation and educational policies and aims to select a limited number of priority areas for investment based on the region's strengths and advantages.

Despite the fact that initially, "smart specialization" was not considered as a paradigm of EU regional policy, it became its key pillar for the period 2014-2020. According to McCann (McCann, 2015), 3S fit very well with EU cohesion for two reasons. First, because "smart specialization" has shaped the system of policy priorities in line with the Europe 2020 strategy. Secondly, because it took into account, like the policy of cohesion, the peculiarities of the region. Cohesion policy implies that policy priorities should be different for each region and that regional policy should be based on the potential of the region (Rodrik, 2005; Barca, McCann and Rodríguez-Pose, 2012). It is on this - the application of the "bottom-up" approach - that the strategies of "smart

specialization" in the development of entrepreneurship in the region are built.

All strategies of the EU regional policy are subordinated to one goal - inter-regional convergence - the socio-economic convergence of regions, which generally serves European integration. The viability of the Single European Act of 1986, the purpose of which was to create a Common Market, was expected to depend on the distribution of resources among the countries and regions of the EU. As a result, a large amount of funds (35%) was allocated to the development of the EU regions from the Structural Funds and the Cohesion Fund. The goal of equalizing the levels of development of the regions was enshrined in Section V of the Single European Act (Article 130 "a" of the Treaty on the European Economic Community) (The Single European Act 1986).

After four decades of active regional politics in the EU-12 (mainly in Southern Europe) and almost two decades in the EU-15, lessons learned show that the transition from less developed to developed regions is the exception, not the rule. Convergence occurred regularly, but was often temporary and unreliable. Using the average EU GDP per capita as a benchmark, few regions have managed to overcome their structural weaknesses and the middle income trap, moving into the category of developed regions with sustainable productive potential, able to compete in the international market with high added value and cope with crises. Ireland is the most striking example of such a region, while cities in the EU-15 include Prague and Bratislava. An improvement in the economic situation is observed in many regions - there is a conditional convergence, when poor regions grow faster than rich ones, all other things being equal (provided that the structural parameters and production function are similar), i.e. with the same steady state. If the steady states are different, conditional convergence means that a country grows faster the farther it is from its own steady state (Туманова и Шагас, 2004).

Some regions with GDP per capita close to the EU average are stuck in the middle income trap. This phenomenon occurs when the growth of a country's economy slows down and eventually stops after reaching the middle income level. The problem usually arises when developing countries get stuck in the middle due to rising wages and declining price

competitiveness, resulting in an inability to compete both with developed economies based on innovation and high skills, and with economies with low incomes, wages and cheap production of industrial goods (Asia 2050: Realizing the Asian Century, 2011). As wages rise, producers often find themselves unable to compete in export markets with other countries with lower production costs. At the same time, they still lag behind advanced countries with higher production costs.

Typically, countries trapped in the middle income trap have low investment levels, slow output growth, poor industrial diversification, and poor labor market conditions. In order to avoid the middle income trap, a transition to an innovation strategy and the search for new markets to support export growth is necessary. It is also important to increase domestic demand. The growing middle class can use the increase in purchasing power to purchase high-quality, innovative products, which helps spur economic growth.

The biggest challenge is the transition from resource-driven economic growth that depends on cheap labor and capital to growth based on high productivity and innovation. This requires investment in infrastructure and education. Thus, South Korea, and in the EU, Ireland have shown that the creation of a high-quality education system that deals with science is a key factor.

Often intra-European convergence was achieved only in relation to capitals and large cities. In relation to states during a recession, conditional convergence takes place. The 2008 EU crisis caused the long-term downward trend in regional disparities in GDP per capita and areas of employment to come to a halt. However, in many regions GDP per capita and employment remain below pre-crisis levels. The EU 2017a report on economic, social and territorial cohesion (European Commission, 2017) shows that regional disparities decrease again after the crisis. During the period of growth 2000-2008. The main leaders in per capita GDP growth were exclusively countries that had recently moved from a planned to a market economy. Almost all of them had a low GDP per capita, but many showed impressive results and overtook the southern European regions.

The economic and financial crisis led to a reduction in GDP per head between 2009 and 2015 in around 40% of regions, located mainly in

Ireland, Italy, Spain, Portugal and Greece; in most Greek regions, the reduction amounting to over 3% a year (European Commission, 2017)

From 2000 onwards convergence was mainly driven by the catching up of the less developed economies. GDP per head, therefore, grew faster in real terms in the less developed Member States than in others over the period 2001-2016, except in 2010 and 2011 (European Commission, 2017).

From 2011 to 2013 the average growth rate in the moderately developed Member States was below that in the highly developed Member States, i.e. diverging. Only in 2014 did it overtake the rate in the highly developed Member States and growth in their GDP per head (European Commission, 2017).

In 2019-2021, Luxembourg and Ireland in terms of GDP index at purchasing power parity lead by a significant margin among 36 countries, including: EU member countries, EU candidate countries - Albania, Montenegro, North Macedonia, Serbia and Turkey; potential EU candidate - Bosnia and Herzegovina; countries of the European Free Trade Association (EFTA) - Iceland, Norway and Switzerland.

From 2019 to 2021, the GDP index grew and remained the highest in the EU. GDP at purchasing power parity of the European Union per capita in 2021 was 38,411 US dollars (European Union GDP Per Capita 1970-2023), GDP at PPP - 40,856.84 (GDP per capita, PPP - Classification of countries). GDP per capita at PPP in Ireland is USD 102,496.22 (2.5 times higher than the EU average), in Luxembourg - USD 115,683 (2.83 times higher than the EU average). Bulgaria is the lowest at \$24,398 (1.67 times less than the EU average) (Trading Economics).

At the same time, the index of actual consumption per capita (AIC) in absolute terms without taking into account the price difference (without purchasing power parity) in Luxembourg is lower than GDP - 144% and this is the highest index in the EU (Figura 4). At the same time, Luxembourg has the highest price level - (GDP per capita, consumption per capita and price level indices, 2022). In Ireland, AIC in absolute terms is much lower (88%) with such a high GDP per capita (219%). In Ireland, the price level compared to the EU average (100%) is 146.4. The lowest price index is in Turkey (35.7%) (GDP per capita, consumption per capita and price level indices, 2022).

The difference in GDP per capita at PPP across EU member states is significant (Table 1). Luxembourg, as we noted above, has the highest per capita PPP GDP. This is explained by the fact that Luxembourg, albeit not from a legal point of view, but in fact is an offshore jurisdiction - a territory where foreign investors fix their profits, creating them and spending them on the territory of their countries. The high GDP per capita in Ireland (219%) is due to the rapid development of the economy due to the policy of "smart specialization" aimed at the development of intellectual property. True, most of the country's GDP is returned to the owners of multinational companies.

Next in the ranking of GDP per capita in terms of PPP are Denmark, the Netherlands, Sweden, Austria, Belgium, Germany - their figure is 120-123%. The EFTA countries have the following indicators: Norway - 167%, Switzerland - 155%, Iceland - 119%. This means their GDP is above the EU average. Finland and France complete the list of countries with above-average GDP at PPP (112%, 104%). Malta has a GDP equal to the EU average (100%).

Italy, the Czech Republic, Cyprus and Slovenia are 10% below the IP average. From 10% to 20% lower - Lithuania, Estonia and Spain. From 20% to 30% below the EU average - Poland, Portugal, Hungary, Romania, Latvia and Croatia (70%). 40% to 50% below the EU average - Slovakia, Greece, Bulgaria (57%) and Turkey (63%). Indices from 48% to 32% have candidate countries Montenegro, Serbia, North Macedonia, Bosnia and Herzegovina and Albania.

The material well-being of households shows the indicator of actual consumption per capita (AIC). By and large, this figure is the same for most EU countries. Luxembourg has the highest AIC per capita (144%). Further - Norway (126%) and Germany (120%), Iceland and Switzerland (119%), Belgium (116%), Finland (112%). France and Switzerland (111%). Italy, Lithuania and Cyprus have AIC values close to the EU average of 98%, 97% and 95% respectively. Ireland has a per capita AIC 12% lower than the EU average despite having the second highest GDP in the EU. 15% lower per capita spending in the Czech Republic, Slovenia, Spain. Portugal Poland, Romania have AIC 84%, Estonia - 80%. 25-30% lower - Latvia, Greece, Croatia, Slovakia, Hungary (70%). In Turkey, household spending is 69% of the EU average. The lowest costs are in Albania (39%) (Table 1).

Table 1. Volume indices per capita, 2019-2021, (EU=100)

	Gross domestic product			Actual Individual Consumption		
	2019	2020	2021	2019	2020	2021
Luxembourg	251	261	268	146	141	144
Ireland	189	205	219	94	88	88
Belgium	126	133	133	115	120	119
Netherlands	127	130	130	113	115	115
Sweden	119	122	123	109	111	111
Austria	126	125	123	117	116	117
Belgium	118	119	120	114	114	116
Germany	121	123	120	122	124	120
Finland	109	114	112	111	114	112
EA19	106	105	105	106	15	104
France	106	104	104	109	110	111
Malta	103	97	100	86	82	83
Italy	97	94	95	100	97	98
Czech	93	93	92	85	85	85
Cyprus	93	90	91	97	97	95
Slovenia	89	89	90	83	82	85
Lithuania	84	88	89	93	95	97
Estonia	82	86	89	76	79	80
Spain	91	83	83	91	84	85
Poland	73	76	77	80	83	84
Portugal	79	76	75	86	84	84
Hungary	73	75	75	67	70	70
Romania	70	73	74	78	81	84
Latvia	69	72	72	71	73	76
Croatia	67	65	70	67	68	72
Slovakia	71	72	69	70	72	71
Greece	66	62	64	77	74	75
Bulgaria	53	55	57	58	60	65
Norway	147	142	167	128	127	126
Switzerland	153	154	155	123	122	119
Iceland	126	119	119	114	119	119
Turkey	59	61	63	65	66	69
Montenegro	50	45	48	60	59	60
Serbia	41	43	44	49	51	53
North Macedonia	38	38	42	43	43	51
Albania	30	31	32	38	39	39
Bosnia and Herzegovina	32	33	33	41	41	41

Source: Eurostat ([prc_ppp_ind](#))

Despite decades of EU intervention, there is no convergence of the less developed regions of the southern member states. The situation is similar in the United States, where regional disparity persists despite relatively large transfers of resources to less developed regions.

The solution for less developed regions is innovation policy. However, the two previous program periods (2007-2013 and 2014-2020), one of the main goals of which was to support science and innovation, did not lead to the expected success in the policy of economic and social cohesion. Scientific studies have shown that the first models of economic development of regions associated growth with the accumulation of capital, then with the accumulation of knowledge, while emphasizing research (Romer, 1990; Romer, 1986) and human capital (Lucas, 1988). More recently, an explanation has been found for why some countries grow and others fail - it lies in the role played by institutions (organizing the process of governing structures) (Acemoglu and Robinson, 2012). The experience of the US and the EU shows that it is not enough to simply provide resources - innovations, which are not fish, but a fishing rod (tool) for catching fish, are crucial for a sustainable economy. Speaking of innovations, we mean investments in material and human capital, production and management technologies at the enterprise, and effective public administration. The importance of management for the effectiveness of investments should be emphasized.

Now is the time for further long-term growth and to overcome the middle income trap of the EU regions, not only because the EU is entering a new programming period 2021-2027, but because we are living in a period of Schumpeterian - innovative - economic growth, which is associated with serious changes (Schumpeter, 1934). Artificial intelligence will destroy today's economy. Experience shows that it is during periods of growth that convergence can be achieved. However, this should not be taken for granted. Dramatic change creates both opportunities and threats. Less developed regions have a chance to restructure their economies to take advantage of growing European and global demand. But they are also under threat from business and technology hubs that are attracting talent and investment, leaving peripheral regions far behind. Therefore, it is necessary to develop an innovative policy adequate to the challenges of the time. After all, a

policy that has not been able to bring the regions to the proper level of economic development over the past decades may not be suitable for the future.

There are four categories of regions:

1. Regions with the best performance. These are the capitals of the EU-12 countries that have grown rapidly and have surpassed the EU average GDP thanks to institutional changes, foreign direct investment, inclusion in value chains and investment in innovation.

2. Low-income fast growing CEE regions - the southern regions, whose GDP is still below the EU average. These regions lack absorptive capacity - the ability to absorb new things and apply it in business (Cohen and Levinthal, 1990). Societies in the southern regions are more traditional, and therefore more closed to innovation systems. In the age of globalization of the economy, only open systems survive in the conditions of such a scale of competition - open to changes, innovations, experiments. Readiness for change shows the level of trust in society, which will be low in hierarchical social systems. Therefore, without structural changes aimed at the formation of democratic institutions and institutions, economic growth is not possible in the conditions of the post-industrial development of civilization based on innovation. Without democratic changes, it is impossible to form an innovative infrastructure. The European Quality of Government Index (EQI) in these regions is lower than the EU average (European Quality of Government Index, EQI), is the result of new studies on corruption and governance at the regional level within the EU, conducted first in 2010 and then in 2013, 2017, 2021).

3. The regions stuck in the middle income trap are the southern and eastern post-Soviet regions that grew rapidly until 2008. The way out of the trap is the same democratization of public administration, which will lead to a reduction in non-market mechanisms for regulating the economy - the reduction of the public sector in the economy, the liberalization of business conditions, and the creation of conditions for fair competition. All these changes will lead to the creation of new private companies focused on finding high-margin industries, which currently means only one thing - innovative. There

is only one way out of the middle income trap - innovative production of goods and services based on intellectual property.

4. Low-income, low-growth regions profiting from low labor costs. Their growth will be linked to global economic growth, which will affect these regions linked to the global economy through convergence mechanisms. The problem is the same - weak democratic institutions do not promote competition and economic growth, which in turn would lead to democratic change. The main problem in these regions is that there is a vicious circle of low competitiveness and weak institutions. The way out will be in revolutionary structural changes in the economy and narrow specialization based on the natural and social advantages and resources of the region. In a world of high competition, narrowly specialized industries with a unique character survive.

Two extremes of regional innovation policy can be identified:

1. A strategic dynamic approach that involves coordinated actions and aims for real change. In this case, the policy serves its purpose as a lever for development. This approach has been used in Ireland and in Slovenia, where a “smart specialization” strategy has been used. The Program for Research in Third Level Institutions (PRTLTI) is an Irish government program from 1998-2016 that provided financial support to institutes to develop world-class research in the humanities, natural sciences, engineering and social sciences (business and law) and commercialization of their results (PRTLTI, 2004). PRTLTI has been an integral part of the strategy to transform Ireland's economy into an innovative one. Over 45 world-class research centers and initiatives have been established, high quality research, and research capacity building, making Ireland an attractive destination for scientific careers.

2. Uncoordinated smaller-scale strategies, the scenario of which depends on state influence. State intervention can be both effective and hinder regional change. First of all, this is expressed in the difficulty of obtaining grants by applicants, when they are guided only by the rules of procedure, and not by a long-term perspective.

There is a third type of policy, so to speak, "intermediate", which has absorbed the features of the two types described above, which we consider optimal, because it is suitable for all types of regions:

3. Experimenting with new, riskier, but more rewarding strategies, such as the Czech Science-to-Business Development Tax, the Polish Technology Development Credit, the idea of a quality seal for digital strategies (Seal of Excellence is awarded to project proposals submitted to Horizon 2020 – EU research and innovation funding program to help these projects find alternative funding), demand policy, non-technological innovation, support for local start-ups to enter the global market. These are only indicative measures and are not suitable for all regions.

Below are the conclusions and recommendations on innovation policy:

Education: Labor markets require broad educational reforms, and this is beyond the scope of European Structural & Investment Funds (ESIF) funding and will only have an impact in the long term. Results in the medium term are possible with the support of traditional education alliances with the business sector, which will ensure the employment of graduates. Curricula should be adapted to the demands of the labor market. Charitable foundations can also contribute to solving employment issues. Employment of graduates in the private sector should be a prerequisite for operational funding programs, failure to comply with which will lead to termination of support.

All regions can participate in creating ecosystems and supporting the creation of companies using both complementary and radical innovations. Only low-income, low-growth regions will not be able to meet this challenge. The innovation policy does not have a direct goal of reducing unemployment, but it definitely contributes to the creation of new jobs. The goal of the innovation policy of a middle-income country may be to expand into foreign markets and become more involved in global value chains. The problem that low-income, low-growth countries need to address is insufficient absorptive capacity. Funding for research and innovation through the €95.5 billion Horizon Europe program for 2021-2027 (Horizon Europe, 2022) will enable them to increase their competitive edge. In addition, the creation of

ecosystems requires less funding and financial instruments are used more efficiently.

It is also time to put into practice the slogan "avoid policy homogeneity and encourage experimentation". This will be facilitated both by the policy of demand and the special support for the competitiveness of the regions through participation in the Horizon Europe program and through funding from the European Structural and Investment Funds. Thanks to ESIF for the period 2014-2021 (European Structural and Investment Funds, 2022), 4 million small and medium-sized enterprises received support; 55.2 million people received employment assistance; energy production from renewable sources has been increased, while the annual primary energy consumption of public buildings has decreased by an amount equivalent to the annual energy consumption of 720,000 households; 2.3 million projects have helped rural SMEs become more competitive and create jobs in rural areas; more than 6,000 new jobs have been created in the fisheries sector.

It goes without saying that regulation should be based on developed normative legal acts. The more ambitious the policy, the greater the expected bonuses. A by-product of this approach will be to change the informal rules (risk aversion policy).

It is impossible not to mention digital strategies. All regions will have to go through digital transformation, invest in digital education, stimulate the creation of digital and smart strategies. The development of strategies and the launch of pilot projects with the support of ESIF can accelerate digitalization, a prime example of which is Estonia, which was the first to implement blockchain technology for creating e-government.

Institutions need to be improved. The first steps to improve institutions are formal rules, namely legislation and governance. The effectiveness of public administration and adopted laws depends on the degree of adaptation to changes. Therefore, ambitious strategies and financial support for regions with high resilience to change will not justify themselves. This is where smart specialization strategies come into play. Politicians preferred to keep the number of their supporters in their constituencies, so they used only previously tested tools.

Experts recommend identifying 1-2 Smart Specialization flagship. With the help of the tools of the 3S Strategy, regions can be offered the opportunity to choose 1-2 flagships. Flagships receiving support can be expected to mobilize the business sector.

Concluding remarks concern the role of the EU bodies - the Parliament and the European Commission - in the implementation of the cohesion policy aimed at helping the EU regions. Joint financing of operational programs by the European Union and the administrations of states and regions, primarily in the field of education and science, will provide that public-private partnership when it is necessary to balance supply and demand. The initiative from below - the private sector - guarantees the necessary demand and the not in vain of its satisfaction. Partnership means the mobilization of private non-profit funds, and not their full financing through EU structural and investment funds.

EU assistance should also be in simplifying the rules of accounting for enterprises. The format of this assistance is to conduct inspections in the regions and at the state level. The implementation of the Corporate Social Responsibility Strategy also solves the issues of simplifying bureaucratic procedures. Support from the EU for companies that are focused on the protection of human rights and the environment, therefore, they themselves solve social and environmental issues that were previously within the competence of state bodies. Such a public-private partnership ultimately makes companies more sustainable and innovative, and the economy of the region, the country and the EU as a whole - sustainable.

For the convergence of EU regions in the programming period 2021-2027. it is necessary that innovation policy become more ambitious, risky and ready for experimentation. It was a mistake not to address issues of institutional change: the provision of only tax incentives and grants without market reforms will not lead to the creation of companies that can compete in the global market. If such companies are able to create a unique product with high added value, then they will be under the threat of their direct or indirect (through management) nationalization. The operation of such successful companies will still require changes in the legal regulation of the economic sphere, both

within the country and in foreign economic activity. Without the creation of competitive enterprises that create demand for highly skilled labor, investment in human capital will only lead to a brain drain. The development of national research support programs that are not provided with financial support from state or private investors and without the cultivation of highly qualified personnel through the exchange of experience, international internships, and technology transfer will not lead to the desired result.

The problems of conducting innovation policy in less developed regions include: insufficient human capital and the development of institutional infrastructure for business development; knowledge gained in advanced countries should not cause idiosyncrasy, i.e. should be applied taking into account the characteristics of the regions; regions should support their producers and at the same time not be closed. External intervention will be productive if the regions themselves manage the process and are ready to accept and implement innovations that there have been changes in the usual way. Otherwise, resistance to change will lead to the fact that the rules will be violated and strategies will not be effective.

An analysis of the EU innovation policy in relation to the regions allows us to conclude that the set of its measures did not correspond to the specific problems of the regions and the planned changes. The issue of good governance turned out to be much more important than the issue of additional public investment. Institutions and mechanisms are also important for the diversification of production.

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