

## The Organizational and Economic Mechanism of Managing Inter-Regional Interaction between Russia's Constituent Entities (Case Study of the Northwestern Federal District)\*



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**Abstract.** According to some researchers, in recent years there has been an upward trend in predominant stagnating regions in Russia. The reasons for this include low innovation activity of the periphery, deindustrialization, predominant extractive industries, capital exports, growing social and property stratification and other equally important reasons. The current economic and political crisis in our country is both a threat, an opportunity and an impetus to restructuring the regional economy. In these conditions it becomes extremely necessary to search for new growth points in the regional economy, support for the most promising industries, and efficient resource allocation. Inter-regional cooperation is the most important area of the regional policy, ensuring progressive balanced socio-economic development of regions based on establishing long-term, equal and mutually beneficial relations between them. The importance of inter-regional cooperation for the development of modern Russia's constituent entities is determined by the fact that it strengthens economic ties between them, optimizes the location of infrastructure facilities based on cooperation of their activities, eliminates inefficient financial costs associated with the creation of duplicate economic structures in Russia's constituent entities and unjustified inter-regional competition, combines the regions' economic potential for implementing the most large-scale investment projects, spreads innovative experience in innovation development. The implementation

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of these measures is complicated by lack of sound socio-economic regional public policy. In this regard, problems such as systematization of best domestic and foreign practices in interregional cooperation, research and generalization of theoretical concepts presented in domestic and foreign publications, and development of an organizational and economic mechanism of managing inter-regional cooperation and methodological aspects for evaluating the efficiency of this process become relevant. The developed proposals can be used by public administration entities to improve the efficiency of applying the inter-regional cooperation factor as a driver of regional economic growth in the development of legal, strategic and program-planning documents at the regional level.

**Key words:** inter-regional cooperation, regional development factors, types of inter-regional interaction, forms of inter-regional cooperation, organizational and economic mechanism, inter-regional cooperation efficiency.

**Introduction.** In modern conditions the restrictions on export and import operations, declined foreign investment, decreased demand and increased competition on traditional markets within the country, and reduced resources for regional development in the form of state programs and subsidies the regions are forced to look at growth drivers and factors in their development differently. One of the key factors in the development of regions in current conditions is intensified inter-regional cooperation aimed to expand markets, attract investment and share resources.

Currently, the federal center creates favorable conditions for the development of inter-regional cooperation, in particular, in order to support import substitution and modernize industrial production. However, regional authorities consider other constituent entities in Russia as competitors for attracting resources of the federal center or foreign investors and are often not ready to administer this process. This is reflected in the absence of agreed development areas and priorities with potential partner regions, as well as in duplication of efforts to create and modernize the infrastructure. As a result, the inter-regional cooperation factor, whose role is manifested in increased competitiveness of the regional economy, support for innovative development,

and stimulated economic growth, is not used as an accelerator for developing regional socio-economic systems.

The issues of socio-economic development in the regions at the present stage are considered in the work by A.V. Babkin and E.M. Bukhwald [1]. The authors note that “a successive transition from “planning indicators” to planning institutional change” is required [1, p. 27]. Z.B. Dugarzhapov also believes that “the alignment of regions must be started with changing and developing the institutional environment, rather than smoothing the GRP indicators” [2, p. 88].

S.V. Dokholyan, A.M. Sadykov and A.S. Dokholyan define sustainable socio-economic development of the region as its “ability to provide positive dynamics of the population’s quality of life and standard of living and use new factors and conditions to achieve this goal” [3, p. 61]. S.V. Kuznetsov considers that the contradictory factors in regional development are globalization [4, p. 125], degradation of innovative potential in peripheral areas [4, p. 129], innovative inertness of domestic enterprises [4, p. 130], the increasing role of human capital in socio-economic development, and exhausted sources of export resource-based type of development [4, p. 131]. V.S. Zharov believes that the main problem of socio-

economic development of regions is the quality of strategic planning, which results in the fact that “system inputs (incoming resources to the region’s economy) are separated from its outputs (the system results)” [5, p.100].

One of the founders of the theory of inter-regional cooperation – Michael Porter emphasized in his works [6] the fact that the level of region’s competitiveness in the foreign market is determined, as a rule, by the intensity of competition in the domestic (national) market. In addition, a number of authors indicate that the degree of region’s involvement in inter-regional relations largely determines its economic growth [7, p. 2]. L.V. Ivanovskii writes that “common needs and objectives create economic ties that can unite a set of loosely affiliated regions into a single socio-economic system” [8, p. 140].

V.G. Belomestnov views inter-regional interaction as a tool for long-term development of socio-economic systems – “the process of creating a common regional system formed on the basis of uniting regions’ socio-economic subsystems (business entities) interacting with each other in the socio-economic, political and other spheres, in which common objectives are solved, a strategy and joint development programs are developed” [9, p. 123]. The role of inter-regional cooperation in the development of regional socio-economic systems is manifested in:

- strengthening the regions’ innovative activity [10, 11, 12];
- improving the efficiency of regional policy implementation [13];
- development of region’s international relations [13].

However, according to T.V. Uskova, “regional authorities do not pay proper attention to the process and do not efficiently apply the mechanisms of influencing economic entities” [14, p. 61].

The relevance of intensifying inter-regional cooperation in the Northwestern federal district is substantiated in the work by S.V. Kuznetsov, N.M. Mezhevich and S.S. Lachinskii [15]. The paper emphasizes the fact that “the reduced size of the economic space involved in economic activities decreases the country’s rate of economic development and poses a threat to territorial integrity” [15, p.27].

L.V. Ivanovskii highlights the absence of a management system for implementing inter-regional cooperation in the Northwestern federal district [8, p. 136]. The author also writes that the relations of the regions in the district do not develop, these regions have no common purpose and motivation to “form certain integrity” [8, p. 137]. The author confirms the thesis with the results of analysis of strategies of socio-economic development in such regions: “regional strategies do not provide for inter-regional cooperation for implementation of common needs” [8, p. 140].

Despite extensive research on inter-regional cooperation as a factor in the development of regional socio-economic systems, the issues of methodological support for managing inter-regional interaction remained largely unexplored, which determines the choice of **the purpose** for the article: to build a model of organizational and economic mechanism of inter-regional interaction management at the macro-region level.

The research novelty of the study is to determine the nature and criteria for assessing the types of inter-regional interaction, classification of forms of inter-regional interaction, systematization of tools for developing inter-regional interaction according to the objectives of such interaction and levels of management, and development of methods for assessing inter-regional interaction in Russia.

**Methods of research.** The methodological framework of the research is both general scientific methods and those focused on addressing specific scientific problems: content analysis of regulatory and planning documents, systematization, comparison, logical analysis and synthesis, statistical information processing, and performance evaluation. The informational framework consists of legal documents at all levels of government, documents of socio-economic development of Russia's constituent entities, Internet resources, official statistics, economic research data, forecast and analytical materials.

**Research results.** Domestic science sees inter-regional cooperation primarily through maintaining the relations between regions [16, p. 128], [17]; in foreign approaches, the emphasis is put on the form of building such relations [10, 13, 18]. By **inter-regional interaction** (hereinafter referred to as IRI) we understand a set of exchanges of resource flows carried out within the framework of agreements between authorities, legal entities and individuals in different regions, adopted de jure or de facto, with the aim of representing common interests in the national and global economic space and increasing the level of sustainable development of these regions. The peculiarity of the proposed definition is that it accounts for all types of interaction (horizontal, cross) between target groups (authorities, business structures, budget organizations, population) in various forms (formal and informal).

**The organizational and economic mechanism of inter-regional cooperation management** is a set of objectives of the system of inter-regional interaction and the system of forms and tools for addressing these objectives. The model of organizational and economic mechanism of inter-regional interaction management at

the level of a macro-region (*Fig. 1*) includes the following elements: management subjects and objects, factors in external and internal environment of regional development, and attributes of strategic management of socio-economic development of the region.

One of the most significant modern Russian approaches to the formation of the mechanism of IRI management is the approach of T.V. Uskova and E.V. Lukin, which concerns the regulation of economic relations in the region [14, p. 68]. A distinctive feature of the approach proposed in the study is its complex nature since all types of inter-regional interaction are considered as the object of management, and both integrated structures and organizations of the partnership infrastructure and the authorities are included in the management subject.

**The subjects of IRI management** at the level of a macro-region are:

1. *Public authorities* – regional executive authorities, the executive office of the Presidential Plenipotentiary Envoy to the federal district.
2. *Partnership infrastructure organizations* – a set of institutions engaged in forming partnerships between target groups of regional development. Examples: Chamber of Commerce, business development support centers, Russian Export Center and export support centers in regions, inter-regional associations of economic cooperation. In the Northwestern federal district, this is primarily the North-West Strategic Partnership established in 2012. The partnership is designed to ensure the interaction of public authorities, business and public organizations in the development and implementation of the socio-economic policy in the Northwestern federal district; guide inter-regional PPP-based investment projects implemented. In 2016, the partnership

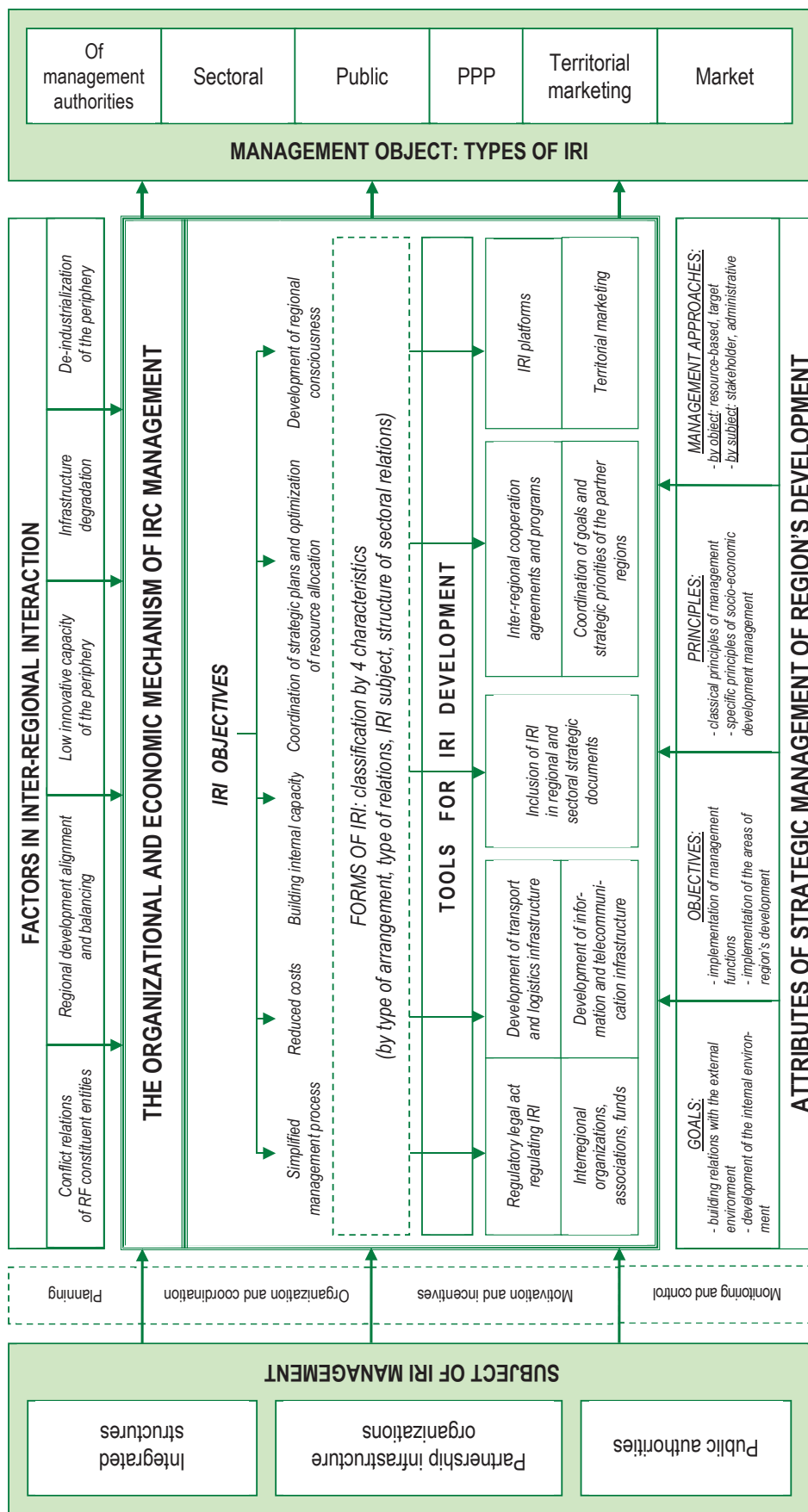


Figure 1. Model of organizational and economic mechanism of IRI management at the level of a macro-region

Table 1. Nature and criteria for assessing types of inter-regional interaction [20]

Type of IRI	Nature	Assessment criteria
<i>Of public authorities</i>	Cooperation based on contractual relations between regional authorities to solve common problems and develop infrastructure	Number of agreements and cooperation programs between regional authorities
<i>Sectoral</i>	Interaction of regional business structures to solve common problems, create production and technological chains, clusters, associations	Number of cooperation agreements, established integrated structures and strategic partnerships
<i>Public</i>	Interaction of public organizations (educational, scientific, law enforcement, cultural and other institutions) and NGOs in the field of network structures, implementation of common projects, exchange of experience	Number of cooperation agreements between public organizations and/or NGOs, agreements on the implementation of certain functions of state management
<i>PPP-based</i>	Interaction of public authorities of Region 1 and business structures of Region 2 to create favorable conditions for management and investment	Number of PPP-based agreements, investment agreements between authorities and business structures, industry agreements
<i>Territorial marketing</i>	Informational impact on the population of Region 1 carried out on the initiative of public authorities of Region 2, to form a positive image of Region 2 in Region 1	Number of information messages broadcast in Region 1 initiated by authorities or state institutions in Region 2
<i>Market</i>	Formal and informal interaction of business structures of Region 1 and the population and public sector of Region 2 in markets of goods and services, labor market	Inter-regional flows of goods and services, correlation of GRP changes in interacting regions

Source: compiled by the author.

coordinated 45 investment projects, the vast majority being intra-regional<sup>1</sup>. One of the partnership objectives is to develop inter-regional sectoral cooperation in constructions, forestry, power engineering, fuel and energy, and mining, which is practically manifested in exchange of experience, finding solutions to common problems, arranging sectoral weeks.

3. *Inter-regional integrated structures* – associations of target groups of regional development in two main variants:

– integrated business structures (diversified industrial groups, integrated business groups, business networks) with the main purpose to improve competitiveness;

– integrated structures of public-private partnership (technology platforms, inter-regional financial and industrial groups, industrial (sectoral) clusters), whose objectives are to improve communications efficiency, develop innovation, and raise competitiveness [19].

<sup>1</sup> North-West Strategic Partnership. 2016 progress report. Available at: [http://www.n-west.ru/wp-content/uploads/2014/03/Otchet-o-deyatelnosti-2016\\_pechat.pdf](http://www.n-west.ru/wp-content/uploads/2014/03/Otchet-o-deyatelnosti-2016_pechat.pdf)

**The object of management** within the developed organizational and economic mechanism is types of inter-regional cooperation whose nature and evaluation criteria are presented in *Table 1*.

As a result of analyzing the strategies of socio-economic development of constituent entities of the Northwestern federal district (NWFD) (see *Appendix*) revealed that most regions use sectoral interaction and territorial marketing (*Tab. 2*); the interaction of governing bodies is reflected in inter-regional cooperation agreements.

**Factors in external and internal environment of regional development** directly influence the process of IRI management.

The weakening inter-regional interaction of NWFD constituent entities after the collapse of the USSR is due to the following main factors (internal environment):

1. *The gap between the companies for supply of raw materials, finished products, operating in controlled economy managed by Regional Economic Soviets (sovnarkhozes)*. For example, in the 1950–s, many enterprises in Pskov

Table 2. Types of IRI in the strategies of socio-economic development of NWFD constituent entities

Region	Type of IRI					
	Sectoral	Public	PPP	Territorial marketing	Market	Total
Novgorod Oblast	+	-	+	-	-	2
Leningrad Oblast	+	-	-	+	-	2
Vologda Oblast	-	+	-	+	+	3
Pskov Oblast	+	-	-	+	-	2
Republic of Karelia	-	-	-	-	+	1
Komi Republic	+	+	+	+	+	5
Nenets Autonomous Okrug	+	+	-	+	+	4
Murmansk Oblast	-	-	-	+	-	1
Arkhangelsk Oblast	+	-	-	-	-	1
Total:	6	3	2	6	4	

Source: developed by the author as a result of analysis of socio-economic development strategies in the Northwestern federal district (Appendix).

were established as branches of Leningrad enterprises, while the center was in charge of product development. Before perestroika, intense economic relations of the Leningrad Oblast with Novgorod, Velikiye Luki, and Pskov took place [4, p. 125].

2. *Deteriorating transport infrastructure.* The rayonnant-radial structure of the road transport infrastructure in Russia with the center in Moscow weakens the interaction opportunities between peripheral regions. For example, only 5% of Russian imports and 10% of Russian exports currently transit the territory of the Pskov Oblast.

3. *Focus of district's economy on foreign trade.* The Northwestern federal district is the largest foreign operator in Russia: 93% of investment projects of the Northwestern FD up to 2030 are related to the implementation of foreign economic functions [4, p. 127].

4. *Deindustrialization* which is manifested in deterioration of industrial potential, reduced production, substitution of industrial platforms with commercial, office platforms and “spots” for housing development, and deteriorating innovative capacity in peripheral areas.

The factors in the **external environment** influencing IRI development in Russia's

constituent entities at the federal level include: alignment and balancing of regional development, strengthening economic disparities in regions, focus on import substitution, restriction of foreign economic activity, absence of a fundamental legal act in inter-regional interaction.

The intensification of inter-regional cooperation among Russian constituent entities is possible only if its role is recognized and it is applied in strategic management of regional development. The study of **attributes of strategic management of development in NWFD regions** (goals and objectives of socio-economic development, management principles and approaches) presented in their policy documents (Appendix) shows that the goals of socio-economic development are more focused on the development of the internal environment, rather than on developing the relations with the external environment; the vast majority of regions set the goals of social and economic and human capital development, less than half –the goals aimed at integration and cooperation development; the principles of partnership and organizing the relations of management subjects and influence subjects are not noted by the regions;

the regions prefer administrative and target management approach due to the low level of social responsibility and lack of competence of authorities in strategic management. Thus, it is revealed that significant opportunities for the development of cooperation between the NWFD constituent entities specified in the 2020 Development Strategy of the district<sup>2</sup> are not fully accounted for in strategic management of NWFD regions.

Below there are some examples of mismatches in perceptions of potential partners in strategic documents of NWFD constituent entities:

1. The priority partners in the Vologda Oblast are: the Arkhangelsk and Leningrad oblasts, republics of Karelia and Komi. However, the Arkhangelsk Oblast and the Komi Republic do not view the Vologda Oblast as a strategic partner.

2. The Novgorod Oblast considers the Pskov, Leningrad and Vologda oblasts as the main partners. These regions do not consider the Novgorod Oblast a partner.

3. The Leningrad Oblast and the Republic of Karelia choose the market type of IRI as the main one (product supplies to Moscow and Saint Petersburg).

As for the reasons for the revealed contradictions, we see the main one in lack of coordination of goals and objectives of socio-economic development in the country at the level of a macro-region. Thus, the only strategic goal within the 2020 Strategy<sup>3</sup> of socio-

economic development of the Northwestern federal district, which requires consolidation of efforts of NWFD regions, is the development of the continental shelf in Russia's Arctic zone. The regional strategies of socio-economic development of the Northwestern FD provide for inter-regional cooperation for implementing the common needs.

Examples of common needs for NWFD constituent entities may be the need for large infrastructure facilities for economic development (territorial corridors, logistics centers, databases and other facilities promoting the movement of resources, goods, information and population) and social sector (large facilities of collective use in healthcare, education, culture, etc.); projects related to the establishment of inter-regional scientific-industrial innovation clusters; projects on resource development in the Russian Arctic zone; development of the Northern Passage as a transnational transport communication.

Forms, objectives and tools for building such interaction constitute **the core of the organizational and economic mechanism of IRI management**.

The classification of forms of IRI (*Tab. 3*) can be used in planning the development of a region as a socio-economic system.

By using the introduced characteristic of classification "by structure of sectoral relations" it is possible to assess the intensity of inter-regional interaction in Russia's constituent entities by comparing the forms of its implementation and sectoral development priorities. The assessment of the structure of sectoral relations between NWFD constituent entities indicates that it would be appropriate for the district's regions to cooperate in various sectors (tourism, forestry and agro-industrial complex, machine-building and power engineering) between several regions

<sup>2</sup> Order of The Government of The Russian Federation no. 2074-p "On the approval of the Strategy of Socio-Economic Development of the Northwestern federal district up to 2020", dated 18.11.2011. Available at: <http://www.n-west.ru/strategicheskoe-planirovanie/strategiya-szfo-2020/>

<sup>3</sup> Order of The Government of The Russian Federation no. 2074-p "On the approval of the Strategy of Socio-Economic Development of the Northwestern federal district up to 2020", dated 18.11.2011. Available at: <http://www.n-west.ru/strategicheskoe-planirovanie/strategiya-szfo-2020/>



Table 3. Classification of forms of inter-regional interaction

Characteristic	Forms of inter-regional interaction
1. By type of IRI arrangement [7, p. 4], [21, pp. 38–39]	1.1. Forman integration (naturally formed; artificially organized) 1.2. Non-formal interactions
2. By type of relations [2, p. 85]	2.1. Competitive (autarchy) 2.2. Cooperation (cooperation; integration) 2.3. Conflict (separatism)
3. By IRI subject [17]	3.1. International and cross-border 3.2. Macro-level (regions) 3.3. Meso-level (economic entities) 3.4. Micro-level (individuals)
4. By structure of sectoral relations	4.1. Interaction within 1 sector between 2 regions 4.2. Interaction within various sectors between 2 regions 4.3. Interaction within 1 sector between several regions 4.4. Interaction within various sectors between several regions
Source: compiled by the author based on generalization of existing approaches.	

Table 4. Systematization of tools for developing IRI by objective and level of administration

IRI objective	Level	
	Federal	Sub-federal
Simplified management process	Inter-regional clusters	Regulatory legal act regulating specific IRI aspects
	Interaction networks (network universities, research teams etc.)	Inter-regional organizations, associations, funds
Reduced costs	Market infrastructure development	Development of transport and logistics infrastructure
		Development of information and telecommunication infrastructure
Building internal capacity	IRI strategic support and monitoring	Inclusion of IRI in regional and sectoral strategic documents
Coordination of strategic plans and optimization of resource allocation	IRI strategy	Inter-regional cooperation agreements and programs
		Coordination of goals and strategic priorities of the partner regions
Development of regional consciousness	Implementation of inter-regional projects	Platforms of IRI development
		Territorial marketing
Source: compiled by the author based on generalization of authors' approaches: [7, 8, 16, 21, 22].		

(except the Komi Republic and the Nenets Autonomous Okrug), which is explained by their similar strategic priorities.

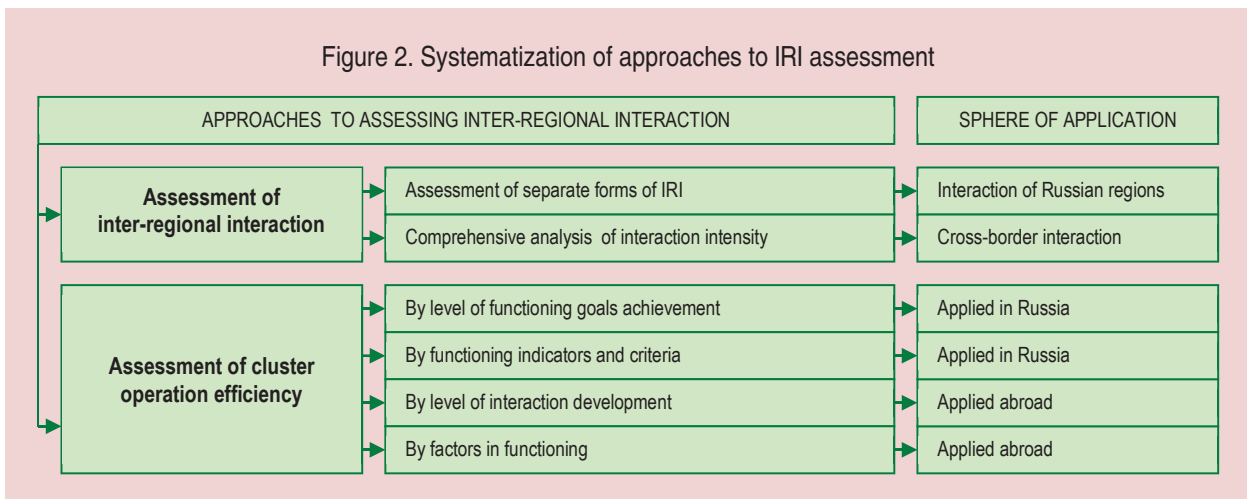
*Table 4* presents the systematization of tools for developing inter-regional interaction by objectives of such interaction and levels of public administration. At the federal level of public administration, we consider it appropriate to create inter-regional clusters, support network structures, and develop the inter-regional infrastructure. At the sub-federal level – to agree on the regions' goals and strategic priorities and the platform for IRI development.

The implementation of **the control function** within the organizational and economic

mechanism of IRI management is ensured by assessing certain types of inter-regional interaction and the degree of implementation of objectives of managing such interaction.

The generalization of results of domestic and foreign studies indicates that approaches to IRI assessment include: a comprehensive analysis of interaction intensity between regions, assessment of certain forms of IRI and efficiency of inter-regional clusters (*Fig. 2*). Complex approaches to analyzing cooperation intensity between regions in our country have been developed and tested for border regions with foreign economic focus [23, 24]. The evaluation of inter-regional interaction within

Figure 2. Systematization of approaches to IRI assessment



the country is practically carried out either through analysis of implementation of its individual forms (for example, inter-regional flows of goods and services) [25], or through assessment of cluster efficiency [26, 27, 28].

The author has developed a comprehensive approach to IRI assessment by studying the practice of implementing certain types of interaction in Russia's constituent entities (Tab. 5).

At the first stage, the strengths and weaknesses of the region's socio-economic development are assessed using statistical indicators. Further, factor analysis of IRI conditions is carried out in order to determine

the threats and opportunities for the environment. SWOT-analysis identifies priority types of IRI and strategic partners. At the fourth stage, the practice of implementing certain types of regional cooperation is evaluated. In conclusion, recommendations on using the cumulative effect of inter-regional interaction in the region's socio-economic development are made. The developed technique was tested in the case of interaction of the Pskov Oblast with NWF regions. As a result of testing, strategic partners and priority types of IRI were identified: the development of inter-regional market interaction with the Vologda Oblast and the Republic of Karelia; creation

Table 5. Methods of assessing IRI in Russia's constituent entities

Stage	Stage description	Methods	Data
1. Analysis of internal environment	Assessment of conditions of socio-economic development of a region (development goals and objectives, management principles and approaches)	Analytical (analysis of achievement of strategic goals)	Data from the Federal State Statistics Service
2. Analysis of external environment	Analysis of the impact of the IRI factor on the development of the regional economy in areas of socio-economic development	Factor analysis, expert evaluation	Expert survey data
3. SWOT-analysis	Identifying priority types of IRI and strategic partners	Expert evaluation	Results of stages 1, 2
4. Assessment of identified priority types of IRI	Assessment of types of IRI according to certain criteria	Analytical method (evaluation of indicators)	Legal and contractual database, statistics
5. Recommendations on intensification of using the IRI factor in the development of a region as a socio-economic system	Recommendations: - on the development of priority IRI types; - on the development of strategic partnerships with other regions; - on improving the efficiency of IRI tools application	Expert evaluation	Results of stages of analysis and evaluation

Source: compiled by the author.

of production and innovation systems, clusters with the Leningrad and Novgorod oblasts; development of inter-regional sectoral interaction: with the Novgorod Oblast in tourism and forestry cluster; with the Vologda Oblast in constructions; with the Leningrad and Arkhangelsk oblasts in transport and logistics; with the Leningrad, Novgorod and Arkhangelsk oblasts in mechanical engineering; with the Leningrad and Novgorod oblasts in power engineering.

The application of the developed technique for assessing the inter-regional interaction of other Russia's constituent entities is possible in case of improving the IRI information support and methodological support for assessing its individual types.

**Discussion of research results.** The relevance of the proposed organizational and economic mechanism of IRI management in NWFD is determined by the following factors:

- a vast majority of inter-regional interactions in NWFD occur between the center (Saint Petersburg) and the periphery; in this regard, activating interactions between peripheral regions is relevant;
- the peripheral NWFD regions demonstrate a small-scale territorial system in

comparison with the national; the Leningrad Oblast and the Komi Republic are the leaders in terms of the scale of economy among all regions in the target group (*Tab. 6*);

- all NWFD regions, except for the Leningrad Oblast, have a low (compared to the national average) number of employees in the economy due to low total population in such regions (*Tab. 6*);

- in terms of economic efficiency 4 regions of the target group exceed the average values: the Komi Republic, the Novgorod, Leningrad and Murmansk oblasts. In our opinion, these indicators are explained by a small number of employees in the economy (with the exception of the Leningrad Oblast) (*Tab. 7*);

- in terms of the share of profitable enterprises, none of the regions in the target group exceeded the national average, which confirms the thesis about the impact of the number of employees in the economy on the overall economic performance;

- despite the rather low level of unemployment, the regions in the target group have social indicators below the national average (including the ratio of population's money income to the cost of fixed volume of goods and services and life expectancy at birth) (*Tab. 8*).

Table 6. Indicators of the scale of the economy of peripheral NWFD regions in 2015 (compared to the national average), %

Region	Production of goods and services	Consolidated budget revenues	Number of people employed in the economy
Novgorod Oblast	0.0005	3.7250	0.4304
Vologda Oblast	<b>0.0010</b>	7.2259	0.7869
Komi Republic	<b>0.0010</b>	<b>8.3908</b>	0.6132
Arkhangelsk Oblast	0.0005	<b>9.7586</b>	0.7575
Leningrad Oblast	<b>0.0018</b>	<b>16.4916</b>	<b>1.2682</b>
Pskov Oblast	0.0002	3.3404	0.4307
Murmansk Oblast	0.0006	<b>8.2838</b>	0.5802
Republic of Karelia	0.0003	4.3311	0.4129
Nenets Autonomous Okrug	0.0003	2.2987	0.0291

Source: compiled by the author based on data from the official website of the Federal State Statistics Service: <http://www.gks.ru/> and OOO RIA Rating ranking agency: [http://vid1.rian.ru/ig/ratings/rating\\_regions\\_2017.pdf](http://vid1.rian.ru/ig/ratings/rating_regions_2017.pdf)

Table 7. Economic performance indicators in NWFD peripheral regions in 2015 (comparison with the national average), %

Region	Production of goods and services per 1 resident	Capital investment per 1 resident	Share of profitable enterprises
Novgorod Oblast	<b>120.66</b>	<b>119.30</b>	91.52
Vologda Oblast	<b>124.34</b>	71.36	93.74
Komi Republic	<b>169.40</b>	<b>204.64</b>	92.63
Arkhangelsk Oblast	62.76	44.60	89.71
Leningrad Oblast	<b>151.74</b>	<b>113.02</b>	99.03
Pskov Oblast	52.35	41.17	89.71
Murmansk Oblast	<b>120.78</b>	<b>132.98</b>	84.84
Republic of Karelia	66.34	51.59	79.55
Nenets Autonomous Okrug	1072.38	2610.48	86.51

Source: compiled by the author based on data from the official website of the Federal State Statistics Service: <http://www.gks.ru/> and OOO RIA Rating ranking agency: [http://vid1.rian.ru/ig/ratings/rating\\_regions\\_2017.pdf](http://vid1.rian.ru/ig/ratings/rating_regions_2017.pdf)

Table 8. Indicators of the social sphere in NWFD peripheral regions in 2015 (comparison with the national average), %

Region	Ratio of money income to cost of a fixed set of consumer goods and services	Unemployment rate	Life expectancy at birth
Novgorod Oblast	93.97	82.14	95.25
Vologda Oblast	84.05	<b>121.43</b>	98.05
Komi Republic	<b>100.00</b>	<b>125.00</b>	96.65
Arkhangelsk Oblast	92.24	<b>121.43</b>	98.05
Leningrad Oblast	77.16	91.07	98.05
Pskov Oblast	70.26	<b>123.21</b>	95.25
Murmansk Oblast	97.85	<b>139.29</b>	98.05
Republic of Karelia	79.74	<b>157.14</b>	96.65
Nenets Autonomous Okrug	<b>165.95</b>	<b>141.07</b>	99.45

Source: compiled by the author based on data from the official website of the Federal State Statistics Service: <http://www.gks.ru/> and OOO RIA Rating ranking agency: [http://vid1.rian.ru/ig/ratings/rating\\_regions\\_2017.pdf](http://vid1.rian.ru/ig/ratings/rating_regions_2017.pdf)

Modern realia of socio-economic development of NWFD regions are associated with a forced change of usual development priorities based on foreign economic openness and the search for new growth drivers. One of the ways to enhance regional development is to intensify inter-regional cooperation to both share resources and expand markets. The existing model of relations between the center and the periphery determines the competition of regional authorities for resources of the federal center. Moreover, the regions compete in the foreign market, seeking to attract resources of foreign investors. As a result, the potential synergy of inter-regional cooperation, both

resource and system, is not used by the regions as a driver of growth and development.

Inter-regional interaction as a tool for developing strategic priorities of Russia's constituent entities strengthens their economic ties, optimizes the location of infrastructure facilities based on cooperation of their activity, eliminate inefficient financial costs associated with creating duplicate economic structures in the regions and unjustified inter-regional competition, combines the economic potential of Russia's constituent entities to address the most large-scale investment projects, and disseminates progressive experience in regions' innovative development.

The studies in progress are characterized by lack of a common point of view on the choice of the best IRI model. The overall conclusion that can be drawn based on generalization of the existing scientific publications related to this scientific problem is that it is necessary to ensure the transition from regional strategies of competition for resources to strategies of mutually beneficial cooperation of Russia's constituent entities. In this regard, it can be stated that the improvement of scientific and methodological provisions of inter-regional interaction as a key factor in the development of regional socio-economic systems is an urgent economic problem both in theory and in practice. As a result of the present study, scientific and methodological provisions of inter-regional interaction, including the organizational and economic management mechanism and evaluation methods have been improves. Their application for managing the development of regional socio-economic systems will help use the cumulative effect of inter-regional cooperation of Russia's constituent entities as an accelerator of regional economic development.

## Appendix

Strategic documents of socio-economic development of NWF regions

Region	Document	Access
1. Novgorod Oblast	Law of the Novgorod Oblast no 100-OZ "On the strategy of socio-economic development of the Novgorod Oblast up to 2030 (as amended on 04.05.2016)", dated 09.07.2012	<a href="http://docs.cntd.ru/document/439047200">http://docs.cntd.ru/document/439047200</a>
2. Vologda Oblast	Resolution of the Government of the Vologda Oblast no. 739 "On the Strategy of socio-economic development of the Vologda Oblast up to 2020 (as amended on 14.12.2015)", dated 28.06.2010	<a href="http://docs.cntd.ru/document/424083385">http://docs.cntd.ru/document/424083385</a>
3. Komi Republic	Resolution of the Government of the Komi Republic no. 88 "On amendments to the Decree of the Government of the Komi Republic no. 45 "On the Strategy of economic and social development of Komi Republic up to 2020, dated 27.03.2006", dated 22.03.2013	<a href="http://docs.cntd.ru/document/430606073">http://docs.cntd.ru/document/430606073</a>
4. Arkhangelsk Oblast	Strategy of socio-economic development of the Arkhangelsk Oblast up to 2030 (project)	<a href="http://sp.lifttothefuture.ru/uploads/priority/files/b03dde66987b741e5048fd583b7505ce1c1d5ef6.pdf">http://sp.lifttothefuture.ru/uploads/priority/files/b03dde66987b741e5048fd583b7505ce1c1d5ef6.pdf</a>
5. Leningrad Oblast	Law of the Leningrad Oblast no. 76-oz "On the Strategy of socio-economic development of the Leningrad Oblast up to 2030 and the recognition of the regional law "On the Concept of socio-economic development of the Leningrad Oblast up to 2025" as invalid", dated 08.08.2016	<a href="http://docs.cntd.ru/document/456011417">http://docs.cntd.ru/document/456011417</a>
6. Pskov Oblast	Order of The Administration of the Pskov Oblast no. 193-p "On approval of the Strategy of socio-economic development of the Pskov Oblast up to 2020 (as amended on December 24, 2012)", dated 16.07.2010	<a href="http://docs.cntd.ru/document/924021554">http://docs.cntd.ru/document/924021554</a>
7. Murmansk Oblast	Resolution of the Government of the Murmansk Oblast no. 768-PP/20 "On the Strategy of socio-economic development of the Murmansk Oblast up to 2020 and for the period up to 2025", dated 25.12.2013	<a href="http://docs.cntd.ru/document/465602093">http://docs.cntd.ru/document/465602093</a>
8. Republic of Karelia	Order of the Government of the Republic of Karelia no. 129r-P "On the Strategy of socio-economic development of the Republic of Karelia up to 2020", dated 10.04.2007	<a href="http://docs.cntd.ru/document/919323898">http://docs.cntd.ru/document/919323898</a>
9. Nenets Autonomous Okrug	Resolution of the Chamber of Deputies of the Nenets Autonomous Okrug no. 134-SD "On approval of the Strategy of socio-economic development of the Nenets Autonomous Okrug up to 2030", dated 22.06.2010	<a href="http://docs.cntd.ru/document/441760904">http://docs.cntd.ru/document/441760904</a>

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