

## Chapter 5

# INNOVATIVE APPROACHES TO FORMATION OF THE RESOURCE POTENTIAL

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## THE MEANING OF INNOVATIONS IN THE DEVELOPMENT OF LOGISTICS SYSTEMS

The current stage of the development of the Republic of Belarus (then - RB) is characterized by the strategic reference point for the innovative development of all areas of national economy, which requires rethinking of logistics role and meaning.

At the same time in the basic regulatory documents of the economic development of the Republic of Belarus (Law of 10.07.2012, № 425-L «About state innovation policy and innovation activities in the Republic of Belarus» and Law of the Republic of Belarus of 19.01. 1993 № 2105-XII «About the foundations of the state scientific policy»; the state program of innovative development of the Republic of Belarus for 2011-2015, and the technological development Strategy of the Republic of Belarus up to 2015 period) the role of the logistics system is not fully realized as subsystems of the national economy in which the processes of exchange of goods and trade flows are intensified.

The practical problem is also connected with a realization of the meaning of innovations for the development of logistics systems which is not recognizable in full during the description of their essence by scientists.

For the development of the logistics system (then – LS) the implementation of innovations that are aimed at the effective product distribution management in each section of the logistical chain is needed. It will provide improving of streaming processes for effectiveness and competitiveness of enterprises achieving.

The implementation of innovations as a means of achieving this aim

is complicated because logistics is a relatively young science, in comparison, for example, with marketing. Many questions relating to its conceptual apparatus and terminology are very changeable and constantly supplemented with new content.

For solving particular scientific problems it is necessary: first – to examine the essence of LS and its subsystem elements; second – to systemize the existing approaches to the classification of the key concepts which are used in logistics for substantiation and formation of LS at various levels of the national economy and, most of all, at the level of enterprises that is very relevant; third – to determine the place and role of innovations according to their type in LS, in general, and in each of its subsystems.

According to its essence, LS is one of the most complicated social and economic systems made by man. The complexity is connected with the fact that the LS has both economic and social essences as it consists of social and economic units (subsystem elements), which are interconnected in a common management process of material and attendant streams, operating logistic functions, and are connected with external environment.

Summarizing the material which is presented in logistics sources, it is possible to distinguish main subsystems of LS: - purchase, - production facilities; - resources; - transport; - production; - distribution; - marketing; - information; - personnel staff; - service; - finance.

At the same time, such an approach to the emphasizing of major subsystems LS collides with the understanding of the conceptual foundations of its management. According to such a classification, the structural elements, which influence the logistics processes, are not distinguished.

The realization of this methodological problem leads to the necessity of LS subsystems improvement with structural elements and processes distinguishing in it which the influence of those elements is aimed at. Thus, LS subsystems are divided into structural elements and processes. It is presented in table 5.1.

Obviously, the most important subsystems-processes are aimed at the LS formation, functioning and development. At the same time, it is not possible to organize even one of those processes without the formation of subsystem-structural elements.

However, the given characteristic of subsystems makes it possible to assert that there are presuppositions in each of them which form and develop the system, as a whole. These preconditions are formed

Table 5.1

**The classification of LS subsystems with structural elements and processes distinguishing**

<i>Subsystem</i>	<i>The brief description of LS subsystem</i>
<i>Subsystems are structural elements</i>	
Personnel staff	The most important subsystem, which influences the functioning of all logistics operations and provides with purposeful activity of the logistics system, in general, because it has a very valuable resource – personnel staff, that is capable of productive work.
Finance	It is a management and plan system of financial flows based on the information and data about the organization of material flows; it performs the number of important functions aimed at the ensuring, accounting and coordination movement of resources in logistics processes.
Information	It supports the information link between all LS subsystems simultaneously carrying out control and management function.
Transport	It connects particular elements of the logistics system (purchasing, storage facilities, resources, production, marketing) using transport process, ensuring both the regularity and timeliness of its functioning.
Production facilities	It is represented by storage areas in the form of buildings, constructors, areas and also necessary technical means for transition of material flow "storage area"; the main purpose is connected with placement and storage of the material flow, converted into reserves, its processing in the storage and organization of required "format" for more convenient transportation.
Resources	"Circulatory" subsystem is an indicator of LS vitality, which guarantees its high adaptability to the changing market environment and is characterized by high costs. In general, it influences LS effectiveness, depending on the relevant value of resources.
<i>Subsystems are processes</i>	
Purchase	It provides the logistics system with a material flow in the form of raw materials and other resources directly from the original source.
Production	It provides the transformation (processing) of the incoming material flow into output, which is relevant in the market, with minimum cost and required quality.
Distribution	It provides an outflow of material flow from the subsystem of production and its delivery through logistic channels and also chains with minimum cost.
Marketing	It provides timely sales of finished products for customers with the accompanying logistics services in the right place at the appointed time; the subsystem, integrated with marketing.
Service	It provides a range of services which are carried out in the process of ordering, production, purchase, delivery and further product servicing.

according to the aims of separate system functioning, which can be achieved during the solution of the system tasks. In general, the goal achievement of the separate subsystem functioning due to the solution of particular objectives create economic and social conditions for LS formation and development.

To determine the meaning of innovation in LS, in general, it is necessary to find in its definition those processes which allow to develop the system due to implementation of innovations in each subsystem.

In the Programme of logistics system development of the Republic of Belarus up to 2015 (confirmed by the Soviet of Ministers of the Republic of Belarus of 29.08.2008 N 1249) LS is regarded as a complicated completed (structured) economic system which consists of the elements-links (transport-, wholesale and logistic centers), interconnected and interacting through the information exchange of information in order to achieve the effective chain management of goods and cargo delivery with the participation of Republic and local authorities, interested organizations which have transport, storage, forwarding, information, financial, certified, insurance and production structures [1].

In the project of the Concept of the State LS Development Programme of the Republic of Belarus for 2016-2020 the logistics system is regarded as a complex completed, structured economic system, which consists of transport (transport-, wholesale and logistic centers), interconnected objects on the territory of the Republic of Belarus and organizations which transport, storage, forwarding, information, financial, certified, insurance and production structures, interacting through the information exchange for the effective management of goods movement in the Republic of Belarus [3].

In the project of the Law of the Republic of Belarus «About the logistic activities» of 2012 LS is represented as a complex, dynamic control system, which is aimed at the carrying out of good circulation for timely provision of the economy and the population's needs with goods and products of industrial purpose at the least cost [4].

If there is no unified understanding of LS, it is possible to distinguish structural elements and processes in each definition. In such processes the innovations of a specific type, which have a priority meaning for a separate subsystem, must be applied.

According to LS subsystem division into structural elements and processes the equation of this approach is logical with such a classified

feature of the division into kinds as an innovation type which is connected with an innovative enterprise: the innovation division into food, resource and process [5]. In that case, it is possible to say that four of five subsystems-processes of LS the process innovations on the stage of purchase, distribution, marketing and service have a priority meaning. At the same time the «production» subsystems have production innovations.

The resource innovations are priority for «building blocks» LS subsystems. Their implementation will allow to increase the rationality of resource using and to achieve the aim of each LS subsystem development which are concluded in:

- innovations in staffing strategy of the enterprise (subsystem "personnel");

- innovations in the rationalization of financial resources using (subsystem "finance");

- innovations in LS information support (subsystem "information");

- innovations in increasing of the capacity of LS transport support (subsystem "transport");

- innovations in goods and resources storage (subsystem "storage facilities");

- innovations in resource optimization (subsystem "resources").

Schematically, the dependence can be represented in the form of the innovation classification system for LS subsystems in the following way (fig. 5.1).

The developed classification allows to distinguish the fifteenth classification feature of innovative enterprises (organizations) coding for the automation of their information search, accounting and analysis of innovative activity at the level of the national economy fields and on a global scale. The difference, in that case, is connected with the fact that the coding subject is directly related to LS. On the basis of the developed classification through the implementation of certain types of innovations it is possible to ensure the innovative LS development at any level. This approach represents a practical significance of the proposed classification.

Starting from the definition of innovation interpreted by the Law of the Republic of Belarus of 10.07.2012, № 425-Z «About state innovation policy and innovation activities in the Republic of Belarus» as «a new or improved product, technology or new service, technical decision of production, administrative, commercial type which is introduced into civil circulation or used for own needs [6].

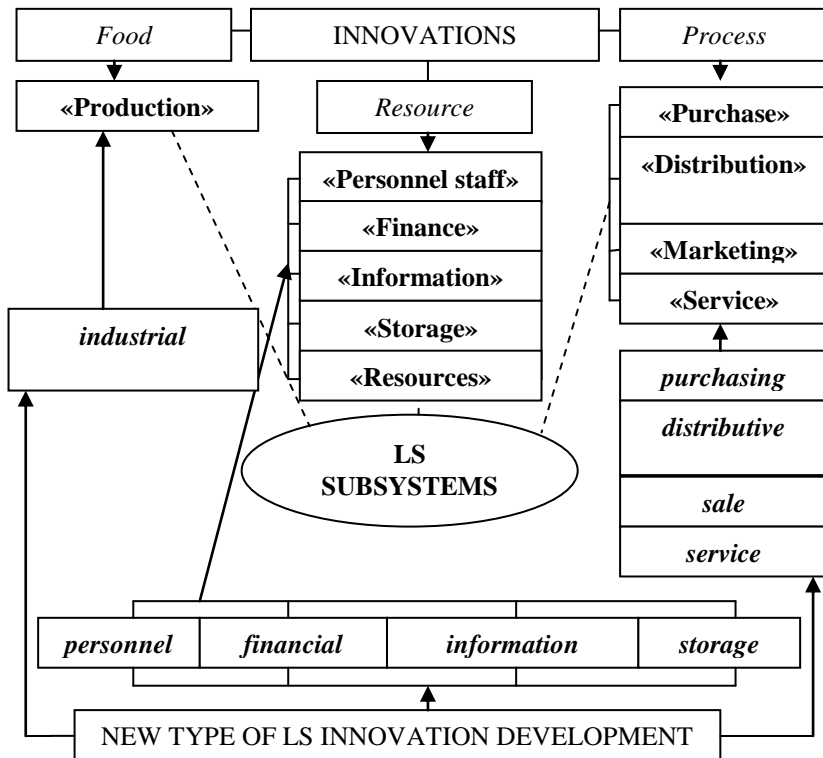


Figure 5.1. Classification of innovation logistics system (LS)

According to the characteristics of LS subsystems (table 5.1), the following description of new innovation types which ensure innovative development of each LS subsystem (table 5.2) is given.

The developed classification and offered characterization of new types of LS innovation directly provides innovative system development through its subsystem elements.

At the same time, the innovations create economic conditions coming out of the tasks that must be solved in each of LS subsystems.

This approach allows to solve the problems in each of LS subsystems through the implementation of innovations. Thus, the potential possibilities which LS has for its development, are increasing. The tasks are also being solved in each subsystem for removal of «narrow spaces» in LS. It allows to create the real assumptions for its innovation development.

Table 5.2

### Characteristics of the new types of LS innovations

<i>A new type of innovation</i>	<i>Brief description of innovation type in LS subsystem</i>
Staffing	Innovations in personnel work (labor force) aimed at the development of motivation of productive work for LS development.
Financial	Innovations aimed at financial flows rationalization in LS, accounting and coordination of financial resources movement in logistics processes.
Information	Innovations for optimization of information connection between all LS subsystem.
Transport	Innovations aimed at reduce of purchasing time, production and distribution including the transport support of LS processes.
Storage	Innovations for rational storage of goods in storage areas, their movement and processing, optimization of storage facilities and resources.
Purchasing	Innovations during the process of purchasing of raw staff, materials and other resources directly from the source.
Production	Innovations in the process of production, transformation of entering material flow of LS into products, which are relevant in the market, with minimum costs and required quality.
Distributive	Innovations in the process of the material flow coming out from LS and its distribution with minimum costs to consumers.
Marketing	Innovations in the process of realization of finished products to consumers.
Service	Innovations during the process of package of services providing after the realization of finished products to consumer.

### References

1. *Программа развития логистической системы Республики Беларусь на период до 2015 года / утверждена Постановлением Совета Министров Республики Беларусь от 29 августа 2008 г. N 1249.*
2. *Государственный Стандарт Республики Беларусь СТБ 2306-2013 «Услуги логистические: общие требования и процедура сертификации» от 29.01.2013 № 7, введенного в действие с 01.11.2013 г. – Минск: Изд-во «Госстандарт», 2013. – 10 с.*
3. *Проект Концепции Государственной программы развития логистической системы Республики Беларусь на 2016 – 2020 годы. – Мн.: БелНИИТ «Транстехника» Министерства транспорта и коммуникаций Республики Беларусь, 2015. – 20 с.*

4. *Проект Закона Республики Беларусь «О логистической деятельности» от 2012 г. – Мн.: Министерство транспорта и коммуникаций Республики Беларусь, 2012. – 41 с.*
5. *Гершман М.А. Инновационный менеджмент. — М.: Маркет ДС, 2008. — 200 с.*
6. *Закон Республики Беларусь от 10.07.2012 г. № 425-3 «О государственной инновационной политике и инновационной деятельности в Республике Беларусь».*

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**SOCIAL INNOVATION FOR  
COMMUNES ON THE  
EXAMPLE OF ‘NEMO  
CREATIVITY STATION’  
PROJECT<sup>1</sup>**

## **1. Introduction**

Social innovations due to their interdisciplinary character become part of a new paradigm, which are open ones [Wyrwa 2015]. It is mainly a bottom-up process, largely spontaneous, without imposing how it should look for ‘top-down factors’ (government, politicians, central institutions, etc.). More effective way to support the development of social innovations seem to be indirect actions, involving the creation of a good climate for innovativeness, entrepreneurship and creativity. The example of such activities dedicated to the networking of cooperation between science and business and consequently to improving the quality

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