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CONSTRUCTION MODEL OF THE CIRCULAR ECONOMY CONCEPT¹

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Abstract

The modern Russian economic theory practically does not describe key ideas about the circular economy phenomenon, its features, place and role in the sustainability formation, which determines the relevance of this study. The article analyzes the existing models for representing the circular economy in the scientific community using the modern concept of the circular economy (the author is Mihelcic and others), the main business models of the circular economy (developed by Accenture) and the Ellen Macartur Foundation model. An innovative model for constructing the circular economy concept is proposed based on the findings, which has a methodological basis; a matrix of typological development is elaborated; also, the implementation processes, management and its functioning are described. The theoretical innovative model of the circular economy is undeniably relevant and attractive trend in the socio-economic space formation.

Keywords

Circular economy – Sustainable development – Development model

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Introduction

The author had previously described the circular economy concept, the basic concepts, principles and its practical application in the activities of countries and various companies, in more detail with the main results can be found in the following publications indicated in the attached list of sources².

According to Shimova, O.S.³, the circular and green economies are a valid way to achieve the theoretically described desired ideal future, translated by the concept of sustainable development. The circular economy offers turnkey solutions and adaptable business models based on the principles of resource efficiency, increasing the environmental and social responsibility of enterprises, taking into account technological development and transformation of society's needs⁴. Its uniqueness lies in the synergy of the most progressive ideas about the interaction of society with nature, which have become widespread in the last 30 years. Particularly noteworthy is the work result of a group of researchers from the BEROC center who presented a unique development reflecting the evolution of the circular economy development, emphasizing the accumulation in it of the most effective practical approaches of ecological and economic schools of science⁵. For example, the following scientific ideas adapted in the circular economy concept can be distinguished:

- isolation and ecological limitations of the planet resource;
- growth limit and environmental problems;
- four famous aphorisms-laws of ecology;
- extending the product life, developing the services sector as a product, and resource efficiency;
- an environmentally sustainable model for industry, the “industrial ecosystem”;
- a zero waste concept;
- natural resources sustainable use;
- the regenerative design concept;

² M. A. Gureva, “Teoreticheskiye osnovy kontsepta tsirkulyarnoy ekonomiki”, Journal of International Economic Affairs, Vol: 9 num 3 (2019): 2311–2336; M. A. Gureva and V. V. Butko, “Practice of implementation of the circular economy model”, Journal of International Economic Affairs, Vol: 9 num 4 (2019): 2367–2384.

³ O. S. Shimova, “Business models of circular economy as tools for implementing the ‘green’ development”, in Collection: Modern problems of project management in the investment, construction and environmental management materials of the IX International Scientific and Practical Conference dedicated to the 112th anniversary of REU named after Plekhanov G.V, ed. V.I. Resin (Moscow: Plekhanov Russian University of Economics, 2019), 298–303.

⁴ A. L. Novoselov et al., Economics and environmental management. Resource Saving: Textbook and workshop for undergraduate and graduate programs (Moscow: Urait, 2017).

⁵ N. Batova; P. Sachek and I. Tochitskaya, “On the way to Green Growth: window opportunities of circular economy”, BEROC Green Economy Policy Paper Series, PP GE num 1 (2018).

- nature as a model and as a mentor;
- ideas of natural capitalism;
- non-waste production, social responsibility;
- any resource can be replaced by another if it is needed for production; there is no waste in nature; any by-product is a source for a new product;
- conservation of the local environment and biodiversity⁶

The mentioned above demonstrates that the circular economy concept has synthesized the elements of an effective economy, industrial ecology, regenerative design, biomimicry, blue economy and the “cradle in cradle” approach⁷. Most ideas about the circular economy come from the description of a certain effective business model, while there are several basic definitions of the “circular business model” concept. Let us look at a few of the most common examples:

- a logical and schematic description of the business processes by which the company is going to deliver to consumers and generate value⁸;
- a summary term for various business models that seek to reduce the amount of materials and resources involved in the production cycle, aimed at extending the life of existing products through restoration and / or repair, while maximizing the residual value of products and materials⁹;
- an abstract conceptual model that illustrates the logic of creating a product and / or a service added value¹⁰.

Methods

The main goal is the innovative model development for the circular economy concept constructing with the algorithms justification that describe the circular economy development in the regional socio-economic space. Depending on the goal, the following research

⁶ V. Aleksandrova, “Aktual’nost’ perekhoda k modeli tsirkulyarnoy ekonomiki v Rossii”, International Journal of Humanities and Natural Sciences, Vol: 11 (2017): 106–110.; N. Batova; P. Sachek and I. Tochitskaya, “On the way to Green Growth ...; Nadezda V. Pakhomova; Knut K. Richter and Mariya A. Vetrova, “Transition to Circular Economy and Closedloop Supply Chains as Driver of Sustainable Development”, St Petersburg University Journal of Economic Studies, Vol: 33 num 2 (2017): 244–268; N. V. Pakhomova and G. B. Malyshev, “Modernizatsiia rossiiskogo ekologicheskogo zakonodatel’sstva i import insti-tutov: ekonomiko-pravovoi analiz”, Vestnik of Saint-Petersburg University. Series 5: Economics, Vol: 3 (2012): 20–35.

⁷ N. Batova; P. Sachek and I. Tochitskaya, “Circular economy in action: forms of organization and best practices”, BEROC Green Economy Policy Paper Series, PP GE num 5 (2018).

⁸ Group Retail.ru, “The business-model,” Retail.ru, <https://www.retail.ru/glossary/the-business-model/>.

⁹ Ellen MacArthur Foundation, “Official Site of The Ellen MacArthur Foundation,” Ellen MacArthur Foundation, <https://www.ellenmacarthurfoundation.org/>.

¹⁰ N. I. Merkusheva and A. K. Pavlyuk, “Ispol’zovaniye konstrukta “biznes-model” v sovremennom predprinimatel’stve”, Voprosy ekonomiki i upravleniya [Issues of Economics and Management], Vol: 2 (2015): 100–105.

methods and techniques have been applied, i.e. abstract-logical, analytical, economic-statistical, programmatic and forecasting.

It is believed that the most widespread and comprehensive model of the circular economy is based on the development of the Ellen MacArthur Foundation, which is based on closed supply chains¹¹. It is worth noting that this model is not the only possible one. In 2014, Accenture experts identified several classification groups of the circular economy business models¹² in the study named “Circular Advantage: Innovative Business Models and Technologies for Creating Value in the World without Growth Restrictions”. This elaboration was accepted by the scientific world community and is actively broadcast by Russian scientists¹³ (Table 1).

Classification Group Name	Features	Application practice	Life cycle stage	Business model example ^a
<ul style="list-style-type: none"> • Circular supplies 	<ul style="list-style-type: none"> • Limited resources are excluded, based on the supply of renewable, biodegradable, recyclable resources. It is possible to return for processing physically and / or obsolete goods to the manufacturer 	<ul style="list-style-type: none"> • Ford Motor Company, Renault Fairphone, 3D Hubs, Novelis, Desso, IKEA, North European Bio Tech Oy, Toyota, Cisco, POET-DSM Advanced Biofuels 	<ul style="list-style-type: none"> • Cycle Start • • • and / or • • Cycle End 	<ul style="list-style-type: none"> • Reverse logistics; • • • Components removal; • • Energy extraction
<ul style="list-style-type: none"> • Resource recovery 	<ul style="list-style-type: none"> • Widespread use of technological innovations in the field of recovery and resources reuse, in order to reduce the valuable materials loss 	<ul style="list-style-type: none"> • Coca-Cola, Heineken, Maersk, DONG Energy, Michelin, Novo Nordisk, Philips, Walt Disney World Resort, Procter&Gamble, Heinz, Apple Renew, Madaster, DSM-Niaga 	<ul style="list-style-type: none"> • Cycle End 	<ul style="list-style-type: none"> • Remanufacturing; • • • Recycling; • • Energy extraction; • • • Reuse; •

¹¹ Ellen MacArthur Foundation, Towards the Circular Economy. Vol.1: Economic and business rationale for an accelerated transition (Ellen MacArthur Foundation, 2013).

¹² Accenture, Circular Advantage: Innovative business models and technologies to create value in a world without limits to growth (Accenture Strategy, 2014).

¹³ V.V. Grigoryeva and F.D. Kuzminov, “Comparative analysis of personal ecological indicators of students. Department of Environmental Safety and Sustainable Development of Regions of St. Petersburg State University (2007-2017),” in Collection of scientific works of young scientists, graduate students, students and teachers on the results of the VIII Youth Ecological Congress “North Palmyra” Congress Materials (St. Petersburg: NICEB RAN, 2017), 369–379; Nadezda V. Pakhomova, Knut K. Richter, and Mariya A. Vetrova, “Transition to Circular Economy ...; O.S. Shimova, “Business models of circular economy ...

Classification Group Name	Features	Application practice	Life cycle stage	Business model example ^a
				<ul style="list-style-type: none"> • components removal
<ul style="list-style-type: none"> • sharing platforms 	<ul style="list-style-type: none"> • promotion of the sharing concept, renting, leasing, service, often using a variety of Internet platforms. Marked changes in the C2C, B2C markets 	<ul style="list-style-type: none"> • atagonia, 3D Hubs, Airbnb, NeighborGoods, BlaBlacar, RelayRides, Nearly New Car, Rent-a-park, BMW, TaskRabbit, Yard Club, Drivy, Toll Library, H&M, Daimler, Lyft, DHL Spaces, Flexe 	<ul style="list-style-type: none"> • exploitation 	<ul style="list-style-type: none"> • goods as a Service; • • sharing; • • virtualization
<ul style="list-style-type: none"> • product Life Extension 	<ul style="list-style-type: none"> • ational life cycle extension of goods use through modernization, reconstruction, restoration and / or repair 	<ul style="list-style-type: none"> • onsse, Bosch, SR-Harvesting, Caterpillar Inc, Volvo, 3 Step IT, Renault, Apple, Swappie, BMA Ergonomics, • Michelin 	<ul style="list-style-type: none"> • exploitation • • • and / or • • cycle End 	<ul style="list-style-type: none"> • emanufacturing; • • • recycling; • • reuse • • restoration
<ul style="list-style-type: none"> • product as a Service 	<ul style="list-style-type: none"> • stimulates the creation of a product with a long life cycle, because the key point is not the direct sale of the product, but its provision for use in various conditions 	<ul style="list-style-type: none"> •amsung, Alston, Rolls-Royce, Philips, Mud Jeans, Michelin, De Kledingbibliotheek, Xerox, Koppert 	<ul style="list-style-type: none"> • cycle start • • • and / or • • exploitation 	<ul style="list-style-type: none"> • codesign; • • • cooperation; • • crowdsourcing

Note: ^a This distinction is conditional and may vary depending on the industry features.

Table 1
 Classifications of circular business models
 (Source: compiled by the author using the sources¹⁴)

¹⁴ Umberto Colombo, “The Club of Rome and sustainable development”, *Futures*, Vol: 33 num 1 (2001): 7–11, accessed March 21, 2020; D. Connor, “Hard drive prices rise due to thai floods,” *Dark Reading*, last modified 2012; Cradle to Cradle Products Innovation Institute, “Cradle to Cradle Products Innovation Institute”, <https://www.c2ccertified.org/>; V.V. Grigoryeva and F.D. Kuzminov, “Comparative analysis of personal ...; G. Heyes et al., “Developing and Implementing Circular Economy Business Models in Service-Oriented Technology Companies”, *Journal of Cleaner Production*, Vol: 177 (2018): 621–632; V. V. Kolmakov et al., “Cluster Development Based on Competitive Specialization of Regions”, *Economy of Region*, Vol: 15 num 1 (2019): 270–284; P. Lacy and Ja Rutqvist, *Waste to Wealth: The Circular Economy advantage* (London: Palgrave Macmillan, 2015); B. Mentink, *Circular Business Model Innovation: A process framework and a tool for business*

The business models classification demonstrates that the circular economy's approach to solving the environmental challenges of today is not limited solely to waste recycling at the end of the product's life cycle (recycling), but, on the contrary, is constantly expanding due to the proposed innovative methods that are built-in at all stages. An earlier extensive analysis of the business models implementing practice of the circular economy proves that their greatest implementation and degree of application efficiency is inherent in countries with a high level of environmental awareness and responsibility¹⁵. The use of innovative business models is interdependent with the willingness of society to find alternative ways of consumption based on circular products, create new platforms, adjust business principles, modernize production technologies, and amend existing legislation. For example, the state needs decisive measures in the field of toughening environmental legislation and developing effective programs to introduce a circular model of the economy; Scientific and production associations support the circular economy development and vigorous activity in the field of its study; enterprises support stimulation, scientific research results implementation and the creation of closed production cycles; and society supports the conscious choice of a consumption new format and the ecologically healthy lifestyle; the scientific community takes an in-depth study of circular business models with wide approbation; the education side, the preparation and implementation of qualitatively new training programs for specialists in the first emerging sectors of the economy.

The main result is the long-term mutually beneficial satisfaction of their goals by the consumer and the company, based on a decrease in the consumption of various types of resources and the creation of new jobs in the "green" sectors of the economy. It is logical to assume that circular business models act as a source of innovative growth in a region that solves the dynamic problems of today.

The vast majority of ideas about the circular economy model concept is all about the reverse (return) cycles of produce consumption, due to the goals and objectives of sustainable development, and limited planetary boundaries. The model of circular economy can be presented by the modern scientific world in accordance with the scientific vision¹⁶. The density of the inner circles demonstrates the effectiveness of reuse, the denser the arrangement, the more useful properties are retained in the material or product, and i.e. there is a reduction in time and energy costs for its restoration. The resource value in the presented model, on the one hand, seeks to maximize, but, on the other hand, is limited by the parameters of permissible energy efficiency and the possibility of existing technologies

model innovation in a circular economy (Master's of Science thesis (Delft: Delft University of Technology & Leiden University, 2014); Nadezda V. Pakhomova; Knut K. Richter and Mariya A. Vetrova, "Transition to Circular Economy..."; A. G. Polyakova; J. N. Nesterenko and E. A. Sverdlikova, "Meta-institutions as a Product of Institutional Dynamics and Institutional Reformation", *Postmodern Openings*, Vol: 10 num 2 (2019): 137–154; O.S. Shimova, "Business models of circular economy..."; Arnold Tukker, "Product Services for a Resource-Efficient and Circular Economy – a Review", *Journal of Cleaner Production*, Vol: 97 (June 2015): 76–91; WBCSD, "CEO Guide to the Circular Economy," World Business Council for Sustainable Development (WBCSD, 2019, <https://www.wbcSD.org/Programs/Circular-Economy/Factor-10/Resources/CEO-Guide-to-the-circular-bioeconomy>); WEF, "Platform for Accelerating the Circular Economy," World Economic Forum, 2014, <https://www.weforum.org/projects/circular-economy/>.

¹⁵ M. A. Gureva and V.V. Butko, "Practice of implementation of..."

¹⁶ Jouni Korhonen et al., "Circular Economy as an Essentially Contested Concept", *Journal of Cleaner Production*, Vol: 175 (February 2018): 544–552; J. R. Mihelcic et al., "Sustainability Science and Engineering: The Emergence of a New Metadiscipline", *Environmental Science & Technology*, Vol: 37 num 23 (2003): 5314–5324.

in the field of processing. Thus, the use of new resources is prevented, which significantly reduces the cost of newly manufactured products, while each repeated cycle carries the formation of a new value¹⁷.

The circular economy theoretical model, described by Accenture, is based on the closed cycle's concept of resource transformation into the final product, functioning throughout the entire life cycle, from the moment of design to the processes associated with reverse logistics¹⁸. It can be assumed that absolutely all companies would like to reduce their dependence on a variety of natural resources, which are gradually becoming increasingly scarce, therefore, at a higher cost, and receive additional profit. According to this study, the vast majority of companies have deeply rooted linear thinking, and the transition to the practice of using the developed circular business models is difficult for them to implement¹⁹. However, intensive development is currently feasible solely through innovation, which is due to the upcoming scientific and technological revolution and the formation of the "Industry 4.0" era²⁰.

The Ellen MacArthur Foundation's circular economy model is most widely accepted and recognized by a number of international communities, as well as at the political level²¹. The basis of this model is the strict principle of not mixing biological (marked in green) and technical (or industrial, marked in blue) closed cycles, which is a kind of continuation of the ideas of Stahel U. R. (1986). In the biological cycle, there are resources that are subject to a safe return to the biosphere even after repeated use. The resources of the technical cycle are subject to obligatory processing after use and then play the role of raw materials for future goods, i.e. this cycle is based on closed supply chains. Common to the resources involved of any nature and type is the ever-increasing intensity of their long-term use²². The key point of this model is the replacement of a "consumer" concept to a "user", which reflects a change in the paradigm of society's thinking and ways to get the net profit necessary for high-quality innovative development.

Results

The innovative model of the circular economy in the study, is defined a set of organizational and managerial heterogeneous elements and processes, including support from interrelated algorithms and mechanisms that describe the processes of implementation, management and functioning of this phenomenon within the socio-economic space.

It has been repeatedly noted that any of the circular economy models, developed by experts, cannot be painlessly accepted and put into practice. Therefore, it is advisable to highlight several generalized groups of problems in the field of management that must be solved by their mandatory integration into an innovative model (Table 2).

¹⁷ Jouni Korhonen et al., "Circular Economy as an Essentially...

¹⁸ Accenture, Circular Advantage: Innovative business models...

¹⁹ Accenture, Circular Advantage: Innovative business models...

²⁰ K. Schwab, The Fourth Industrial Revolution (New York, NY: Crown Publishing Group, 2017).

²¹ Ellen MacArthur Foundation, "Official Site of The Ellen..."

²² Ellen MacArthur Foundation, Towards the Circular Economy. Vol.1: Economic and business rationale for an accelerated transition; Ellen MacArthur Foundation, Towards the Circular Economy. Vol.2: Opportunities for the consumer goods sector (Ellen MacArthur Foundation, 2013); Ellen MacArthur Foundation, Towards a Circular Economy: Business Rationale for an Accelerated Transition (Ellen MacArthur Foundation, 2015).

Any changes are considered as a certain process, entailing the costs of financial, material, intellectual, labor and other resources. To obtain a qualitative result, the time factor is extremely important, the timeliness of circular processes introduction at various levels will maximize the effectiveness of system-forming adaptive transformations of an economy linear model into a closed one.

Title	Description
<ul style="list-style-type: none"> • Irrational natural resource management 	<ul style="list-style-type: none"> • Seeing the natural resource potential of the territory, national wealth has a pronounced dynamics of reduction, which, together with insufficiently effective environmental protection measures, leads to its gradual disappearance. Problems remain regarding the methods of processing, burial and waste management of various origins.
<ul style="list-style-type: none"> • Proportionality violation of strategic priorities development 	<ul style="list-style-type: none"> • The overwhelming majority of strategic management is carried out within the framework of a linear economy model, the growth of which is possible due to the extensive scenario. The share of implemented innovative approaches in various fields is minimized.
<ul style="list-style-type: none"> • Low control scaling 	<ul style="list-style-type: none"> • It is necessary to reduce the duplication and declared strategic objectives in the programmatic development of the regions. To offer personalized tools for implementing programs.
<ul style="list-style-type: none"> • Lack of an unified concept of the circular economy development 	<ul style="list-style-type: none"> • Lack of a single legislatively fixed program document regulating the theoretical and methodological foundations of the circular economy, model, implementation and adaptation instructions, including management tools, targets and time frames for their achievement.

Table 2
Managerial problems to be considered when developing and implementing a circular economy model

When developing the concept, one should take into account possible limiting factors that can limit the development of the circular economy on the scale of a particular socio-economic space, including climatic and environmental features, economic-geographical, economic, institutional, financial, socio-demographic, and innovative and others. When building, one should focus on the rational desire to use the prevailing natural resource of renewable nature, recycling of which will help to overcome existing limitations and reach a steady state space.

When building an innovative circular economy model, it is first necessary to determine priority strategic goals in the development of the region along with its sustainable development, then it will be rational to study the main features, characteristics and signs of

the economic entity and the formation of the initial information base. After the development of basic conceptual solutions and a formalized assessment system, it is necessary to verify its effectiveness. With a positive assessment, the formation of managerial decisions and adaptive functioning mechanisms will follow, and the model will be checked again for adequacy. The subsequent stages include testing the model of the circular economy in the socio-economic space and applying a complex of diagnostics and (if necessary) adjusting it to achieve maximum efficiency.

It is believed that in the information society, one of the main values is knowledge (or information) and the technologies transform the socio-economic space, processes called the scientific and technological revolution²³.

The innovative circular economy model, taking into account the peculiarities is, in our opinion, based on the knowledge transformation represented through the system-forming elements such as environmental education, consciousness, initiatives and communications, this quadrant is the methodological circular economy basis (Figure 1).

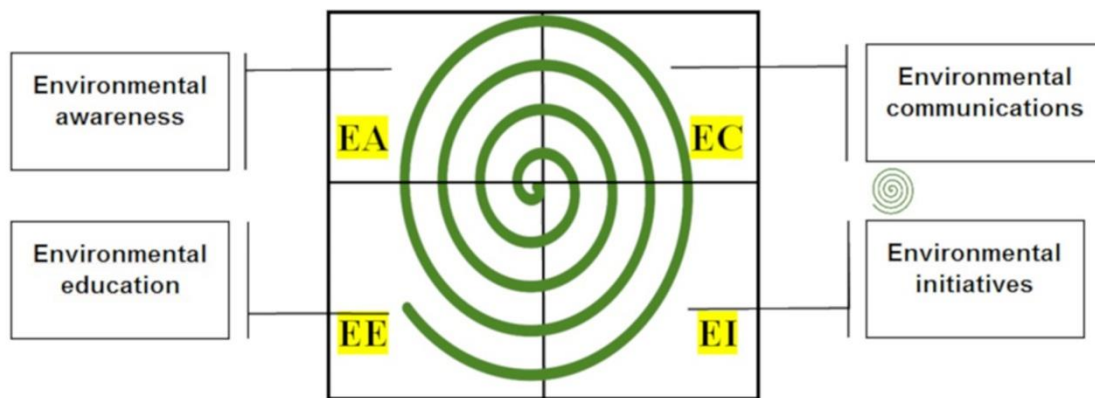


Figure 1

The methodological basis of the circular economy in socio-economic space

Source: compiled by the author

This methodological basis allows to compile a matrix of circular economy typological development (Figure 2).

²³ A. A. Verbin, "Rol' znaniya V informatsionnom obshchestve", in Historical, Philosophical, Political and Law Sciences, Culturology and Study of Art, 12 (62), Part 4, Issues of Theory and Practice (Tambov: Gramota, 2015), 39–42.

<i>Dynamic development type</i>				<i>Progressive development type</i>			
EA	EE	EC	EI	EA	EE	EC	EI
1	1	0	0	1	1	1	1
0	1	0	0	0	1	0	1
EA	EE	EC	EI	EA	EE	EC	EI
<i>Initial development type</i>				<i>Intensive development type</i>			
<i>EE – environmental education, EI – environmental initiatives, EA – environmental awareness, EC – environmental communications</i>							

Figure 2

Matrix of circular economy typological development in socio-economic space

Source: compiled by the author

The above matrix has four typological groups for the circular economy development:

- *1 type “Initial development type” (EE= 0; EA= 1; EC= 0; EI= 0).* There is a gradual increase in environmental education, with the processes of environmental awareness, communication and initiative. The society is in the process of complying the development processes with the environmental aspect.
- *2 type “Dynamic development type” (EE= 1; EA= 1; EC= 0; EI= 0).* The environmental education basis allows you to move on to the formation of stereotypical environmental awareness, which allows you to actively transmit existing knowledge and more and more widely apply them in practice.
- *3 type “Intensive development type” (EE= 0; EA= 1; EC= 0; EI= 1).* With a high degree of environmental education in society, there is a pronounced need for intensive transformation of the surrounding reality in the adopting circularity direction; high degree of innovative activity in the environmental sphere.
- *4 type “Progressive development type” (EE= 1; EA= 1; EC= 1; EI= 1).* There is a deep introduction of circulation processes in all social spheres; this quadrant can be described as an “ideal” one.

It has been repeatedly emphasized in studies that at the heart of any development is a person who acts as a driving force for transforming the world through new knowledge. The circular economy seems to us to be a process of spiral transformation of knowledge, and, therefore, of skills (the so-called Hegelian model takes place), which modernize linear flows into closed flows through the intensive use of innovations. Knowledge, originating at the micro level, formed at the individual level, with proper development, can develop into environmental communication of a global (planetary) scale. An innovative concept model of a circular economy visualizes ongoing transformations under the influence of a driving force through the sharing of modern knowledge, skills, resources (i.e. natural, material, labor, etc.), the infrastructure of cities and regions. The key message of this presentation is the

idea of the undeniable importance of promoting personal environmental initiatives that can transform the world.

The functions of the circular economy are divided into hypersystemic, external, internal, and individually unitary, which are interdependent, which reflects the transformational flow of knowledge.

The circular economy concept functioning can be described by six enlarged stages. At the first stage, there is a search for ways to develop a circular economy model, due to the specifics of a particular regional space through the procedures for conducting a comprehensive analysis of the socio-economic space and identifying key problems in the sustainable development goals implementation. Then, the circular economy potential assessment is given as well as variable scenarios for its development, compared with existing growth reserves. If the first two stages are preparatory in nature, the third stage is practice-oriented, forming the necessary environment for the implementation of the described mechanism, i.e. appropriate institutional structures, program activities, organizational and informational support.

At the fourth stage, a program of the circular economy strategic development in the regional socio-economic space is developed, which includes the implementation of key activities, the consideration and approval of reports, the implementation of strategic control and, if necessary, the elimination of identified violations. The development and adoption of a roadmap is underway.

At the penultimate stage of the functioning mechanism, its effectiveness is monitored, i.e. a single base is created, exchange flows of informational and analytical nature are built, the necessary totality of reporting, responsible persons for the information collection, its preparation and processing are determined, the goals achievement degree and objectives are identified.

At the final stage, the completeness and reliability of the processed and used information is checked, the necessary corrective measures are introduced, and the model of the circular economy is specified.

Conclusion

According to 12 Sustainable Development Goals (SDGs) “Responsible Consumption and Production” (“Ensuring the transition to rational consumption patterns and production”) the search for a resource-efficient economy model is necessary for the environmentally sustainable future (official UN data). This requires mass involvement of consumers in production issues, the development of their interest and environmental education in the direction of sustainable consumption and the adoption of a new lifestyle. On the part of manufacturers, there is transparent informational openness, colossal social responsibility and innovative activity, which come first and push back the desire to be satisfied with short-term “easy” profit. One of the most recognized models of the behavior described above in society is the circular economy.

The proposed circular economy model is undeniably relevant and attractive trend in the socio-economic space. It should be noted that an extensive analysis of scientific publications with the search tag “circular economy” among domestic authors showed extremely poorly developed methodological and organizational and managerial foundations

of the circular economy, which require improvement to formulate a program for transition from linear to closed models adapted to modern conditions of Russia. The following stages are a logical continuation of the theoretical and methodological concept development. It is necessary to develop a new tool for analyzing the circular economy effectiveness; the study of public opinion on issues of sustainability awareness, green and circular economies and understanding of their differentiation; the core basis of a strong economic model in the socio-economic space, contributing to the achievement of target indicators; adaptation recommendations development in order to overcome backwardness in the sphere of recirculation processes.

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