Organizational spaces of the innovative activity for creation and implementation innovations

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Abstract.
The application of innovative ecosystems is gaining more and more popularity due to the peculiarities of its connections with the concepts of «open science», «open innovation» and the triple helix model, the basis of which is cooperation: «government - business - scientific organizations, universities», which increases the ways of creating and knowledge and technology transfer. For the practical implementation of these concepts and the triple helix model, the number of organizational spaces for innovative activity is significantly increasing, which opens and increases the ways of creating and implementing innovations.

Keywords:
triple helix model
Organizational spaces
innovative activity
Ecosystem approach
Aim. Research the main organizational spaces of innovative activity for the creation and implementation of innovations.

Materials and methods. The methodological approach of the study was based on the use of a set of analytical methods of theoretical generalization, expert evaluation and synthesis.

Results and discussion. The European science, technology and innovation policy is based on the application of the concept of «open innovation, open science, open to the world» and uses an «ecosystem» approach to research and innovation, which requires coordinated joint actions, resources of interconnected participants of the "innovation ecosystem" at the level of: city, regional, branch and national [1,2].

The locomotive of the development of the countries of the European Union are innovative ecosystems of regions and cities, which are aimed at developing ways to strengthen regional competitiveness and economic growth [3].

The use of innovation ecosystems is gaining more and more practical significance due to connections with the concepts of «open science», «open innovation» and the triple helix model, the basis of which is cooperation: «government - business - scientific organizations, universities», which increases the ways of creating and knowledge and technology transfer.

For the practical implementation and development of the triple helix model and cooperation: «government-business-scientific organizations, universities», the number of organizational spaces for innovative activity is significantly increasing, which open and increase the ways of creating and implementing innovations, table.

<table>
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<tr>
<th>№</th>
<th>Source</th>
<th>Organizational spaces</th>
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<tbody>
<tr>
<td>1</td>
<td>[4]</td>
<td>The research space, which expands and improves the organization of joint efforts and cooperation within the framework of innovative ecosystems, develops principles and mechanisms for the transfer of best practices, technology transfer to the economy, which allow attracting more private investments in key international projects (example, the European Research Space).</td>
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<td>2</td>
<td>[5, 6]</td>
<td>Smart specialization strategies of innovative ecosystems (for example, within the framework of 120 national, regional, interregional innovation ecosystems of cooperation in 30 regions of Europe).</td>
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<td>3</td>
<td>[7,8]</td>
<td>Clusters that combine regional innovation policy, smart specialization, internationalization, digitalization, with regard to the transfer of technologies in the creation of value chains and their positioning in global value chains, ensuring an increase in the competitiveness of regions (for example, 15 regional clusters of Germany, headed by Fraunhofer institutes).</td>
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<td>4</td>
<td>[9-10]</td>
<td>EU framework programs are a key tool for investing in the creation of research and innovation projects (for example, &quot;Horizon 2020&quot;, &quot;Horizon Europe&quot;).</td>
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<td>6</td>
<td>[13]</td>
<td>Intergovernmental research programs and international infrastructure organizations (for example, CERN, EFDA, EMBL, ESA, ESO, ESRF, ILL).</td>
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<td>7</td>
<td>[14, 15]</td>
<td>Science and technology parks that stimulate the development of regional cooperation and accelerate technology transfer in regional economic development (for example, Sophia Antipolis, France; Kuopio, Finland; Research Triangle Park, USA).</td>
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<td>8</td>
<td>[16]</td>
<td>Research and innovation funds that stimulate the creation of spaces for innovative projects (for example, &quot;ARC Fund&quot;).</td>
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<td>9</td>
<td>[17]</td>
<td>Technology transfer centers and information centers supporting small and medium-sized enterprises (for example, the European network &quot;Enterprise Europe Network&quot;).</td>
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<td>10</td>
<td>[18]</td>
<td>Platform of technology transfer centers between scientific organizations, universities and industry (for example, the European Platform &quot;AST&quot;).</td>
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<td>11</td>
<td>[19, 20]</td>
<td>Network incubators that stimulate network cooperation of participants in the creation and implementation of innovations.</td>
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<tr>
<td>12</td>
<td>[21]</td>
<td>Incubators and accelerators that stimulate the development of spaces for corporate cooperation with venture capital, regarding the creation and implementation of innovations.</td>
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</table>
Deep tech startups that provide rapid commercialization with a large market and social impact.

Academic spin-off companies that contribute to: investments in research and innovation, development of entrepreneurial spaces for the creation and implementation of scientific and technical developments of scientific organizations/universities (for example, scientific organizations of Central Europe, USA, Great Britain, China).

Competence centers that provide cooperation with technology transfer experts, experts in the formation and development of innovative ecosystems (for example, centers of the European Commission).

Spaces for innovation: Fab Labs; Collaborative spaces in small- and medium-sized towns; Living labs; Innovation centers; Innovation districts. The innovation space targets many different users: startups, SMEs, private companies, students, researchers and citizens.

Open Innovation laboratories aimed at developing tools for promoting and demonstrating open innovation in various fields.

The Open Innovation Hub is a place to co-create new value by combining cutting-edge technologies that have been based on experience and ongoing projects with needs and ideas. Here, new values and ideas had created to contribute to a better life, society and global environment.

**Conclusions.** Important direction of the practical implementation of the European scientific, technical and innovation policy is the development of organizational spaces for innovative activities. The research made it possible to identify more than eighteen main organizational spaces of innovative activity for the creation and implementation of innovations.

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