Managing industrial ecosystems in a united digital space

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Abstract
Subject/topic. The article presents an original assessment of the development of interaction management systems in modern ecosystems in the context of industrial development and the formation of a united digital space. ***Goal.*** The research aims to substantiate approaches to the development of conceptual solutions for the effective management of industrial ecosystems. ***Methodology.*** A critical analysis of the spread of the ecosystem approach for integration in industry in the presence of general management patterns is carried out. ***Results.*** The factors of formation of a new management model in a united digital space are determined: historical heritage, decentralization/centralization, duality of the management model, feedback, services, cyclicity, technologies, management virtualization, digital trust and digital responsibility, architecture of management structures. The dual nature of new processes is substantiated, when a single system forms two spheres of management (the development management system itself and the interaction management system), interconnected by feedback. It is shown that for an effective production ecosystem, the level of formation of value chains remains the prerogative of participants, which fundamentally distinguishes the ecosystem approach from the cluster approach. The potential of the ecosystem model as an infrastructure or service model, as opposed to a cluster product model, has been established. The technological aspect of management is highlighted, which is based on the property of modern technologies to separate the control and transformational parts, presenting the possibilities of technology management in a digital environment, which creates more effective integration into a united digital space and the inclusion of augmented reality technologies in interaction with cyber-physical systems that ensure the information reliability of managed objects. ***Conclusions.*** The differences of the management system in the classical, cluster and ecosystem models are established and a conceptual vision of the possibilities of updating it is formed, taking into account the identified ideas about the structure of interaction in the ecosystem and management efficiency criteria (metrics).

Keywords: *ecosystem, industry, economic development, management, unified digital space, digital transformation.*

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