

SECTION 7. MATHEMATICAL METHODS, MODELS AND INFORMATION TECHNOLOGIES IN ECONOMY

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MULTI-AGENT SYSTEM DECISIONS SUPPORT OF INNOVATION CLUSTERS

Today in a complex and dynamic market information environment, characterized by constant uncertainty and volatility of political, economic, social and environmental factors, the basis for the successful operation of business entities have adequate decision-making.

One of the most important issues in our opinion is the absence of IC (innovation clusters) integrated DSS. Formed in the present practice is that all actions by providing decision support are performed in a single event format.

Web-based DSS is widely used in electronic commerce. Systems enable customers to choose the best product or range of products, services, efficient use of after-sales service.

With the development of artificial intelligence methods, there is a new type of information systems – multi-agent system MAS and the ability to use multi-agent approach for decision support. MAS were born at the crossroads of theory and distributed artificial intelligence.

A key disadvantage of traditional DSS is their “hard” given the structure of the search algorithm optimal solutions without taking into account the human factor, but only a machine one.

Given the recent trends of information technology it is necessary to build DSS with an arbitrary number of internal servers to form the basis for the integration of building an integrated system of integrated IC and software that enables system users to work with them through the internet from any hardware platform.

Analyzing the current system, which can be used to simplify and automate management processes, IC was decided to use web-oriented Multi-agent decision support system. In developing the architecture of multi decision support system for integrated circuits must take into account all levels of the management.

Based on the developed models and algorithms it is possible to implement intellectual multiagent decision support system of IC process control or the ability to update the software of multi-information systems.

All DSS solutions in innovative clusters are taken with regard to regulatory and legal base module and priorities of government agent facilitator. Initial data are based on the needs of decision-making and problems faced by DSS.

Further research is finding a platform for the implementation of the system.