

# **ADVANCED ANALYTICS AS A TOOL TO IDENTIFY WAYS TO ACHIEVE SUSTAINABLE DEVELOPMENT**

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At this stage of information society is a rational mechanism for the achievement of sustainable development through the use of management information systems. Advanced Analytic System allows "deep" data mining, forecasting and optimization decision making.

To solve the problem of analysing the social and economic development, advanced analytics system can be modelled several scenarios of sequence analysis. In this way, you can handle not one but two or more models for the region. To show the results can be achieved with different tools of visualization:

- ✓ reports;
- ✓ OLAP-views;
- ✓ graphics;
- ✓ charts;
- ✓ GIS components to display the results on a map.

At the moment, there are many different models of sustainable development of the region.

The main steps of the analysis are:

- 1) formulation Goals of the study;
- 2) construction of Scenario - the model situation development;
- 3) simulation and visualization of the Scenario;
- 4) evaluation the received data using a variety of methods and tools to identify trends in the development of the situation and / or deviations from desirable parameters (pattern matching);
- 5) formulation possible recommendations to the decision-making official (DMP).

One model is a particular subject area. The main elements of the model are the entities and relationships between them. Relationship at the same time can be divided into:

- ✓ mathematical (one object is the result of the calculation using other objects or specific values);
- ✓ logical (such relationships can be determined using the appropriate statistical methods and by an expert).

Such a representation of the studied model provides the ability to change, delete or add elements of the model without destroying the overall model.

The use of computer data processing systems can construct complete model of the system and its development. This is the way you can improve the process of achieving sustainable development. If you change the goal of modelling,

modification of the model will not take the time and numerous resources and analytical components of the system will change the scenario to achieve this goal.

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