

IBS

Using Social Studies and Simulation to Resources Demand



Social Processes

IBS Group, the leading software developer in Central and Eastern Europe, was approached by the Ministry of Education and Science of Russia to conduct the social study, "Development of an Analytical System for Forecasting the Demand in Skilled Professionals in Russia's Economy." The aim of the social study was to create an analytical system, which could help the Ministry plan for the subsidization of higher education from the federal budget.

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specialists are in high demand.

This social study would provide employers with qualified human resources for the positions needed. To implement this strategy, and to balance supply and demand, the government needs to monitor and forecast the labor market.

Having valid forecasts of the demand for human resources in federal subjects (regions) of the country would allow the Ministry to develop plans for subsidizing students, find imbalance between the needs and resources of the regions, evaluate various scenarios, and find ways to achieve the goals, including finding the balance between supply and demand in the labor market.

The aim of the social study

The aim of the social study was to create a unified analytical system for:

1. Analyzing the economic needs of Russia and its regions for skilled professionals.
2. Assessing how the current subsidizing system corresponds with the future needs.
3. Forecasting the optimal number of university graduates, and form subsidization plans for each of the 83 regions for various scenarios.

Solution

As a part of the social study and forecasting system development project, dynamic simulation models of the whole Russian Federation and its 83 regions were created using AnyLogic software. The reason for

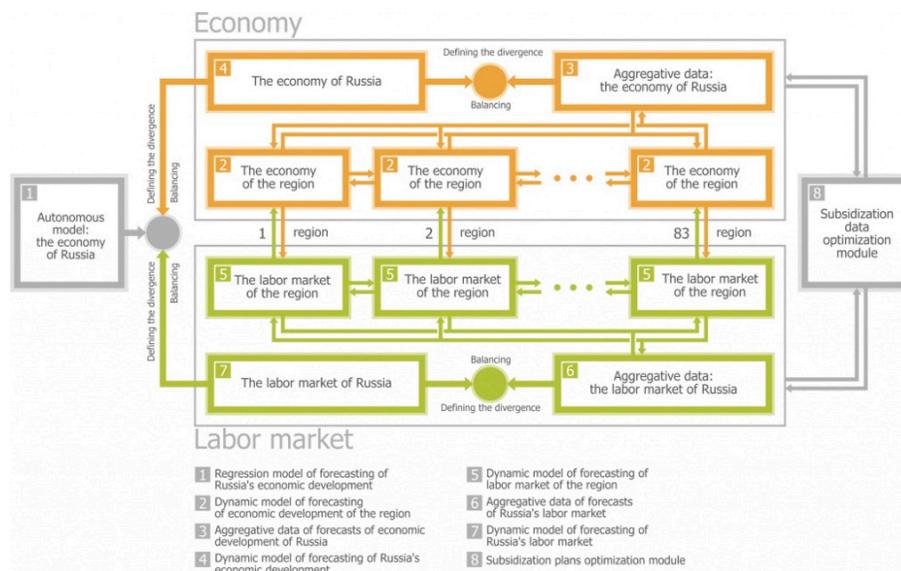


Figure 1. Social Studies Simulations Using AnyLogic

This system helped to form the subsidization plans in 2012 and 2013, and now it is being used for further forecasting.

The results of the social study simulation

The developed system will help the Ministry to:

- Plan the number of university graduates and the number of subsidized students, taking into account peculiarities of each region of the country.
- Align the education plans for skilled professionals with the needs of the labor market.
- Decrease the unemployment rate.
- Choose optimal scenarios for higher education modernization.

into account their specialties.

- Use of web interface for simultaneous work by many users, and the transparency of the process for the participants.
- Automatic calculation of the required number of subsidized university students in the country.

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