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THE SUPPORT SYSTEM OF PLANNING AND DECISION MAKING FOR THE SUSTAINABLE FOREST MANAGEMENT

Latvia occupies the fourth place among the EU member states in terms of forest cover. Forests cover 54% of the country's territory and the amount of forest resources is growing steadily. Due to climatic and geographical conditions, the forest sector has historically been one of the pillars of the economy in Latvia. The total value of the products in the woodworking industry reached 1.6 billion euros in 2011, moreover, approximately 70% of this production was exported. The forest industry is the third largest sector of the economy in Latvia. According to the data of the Central Statistical Bureau, the forest sector's contribution to Latvia's GDP is 7.5% and it employs 9% of the workforce of Latvia. Half of Latvian forests belong to the private owners, therefore sustainability of private forests and economically effective management of these forests is significant for the development of the country's economy. Beside the economic values of forest one should mention the ecological and social ones. The preservation of these values as well as regeneration of forests are connected with the use of adequate forest management planning methods. Model in current use is incomplete, since rational utilization of forest resources is based solely on the planning of the utilization of wood resources. The models of management of ecological and recreational resources have not been developed and the management of economic risks has not been included. By doing the respective research, and developing the method which has been elaborated with information Technologies possibilities, a new decision making support system for the rational planning of forest resources management will be developed. Such a system will create the prerequisites and a platform, based on information Technologies for further research on the condition of forest resources and

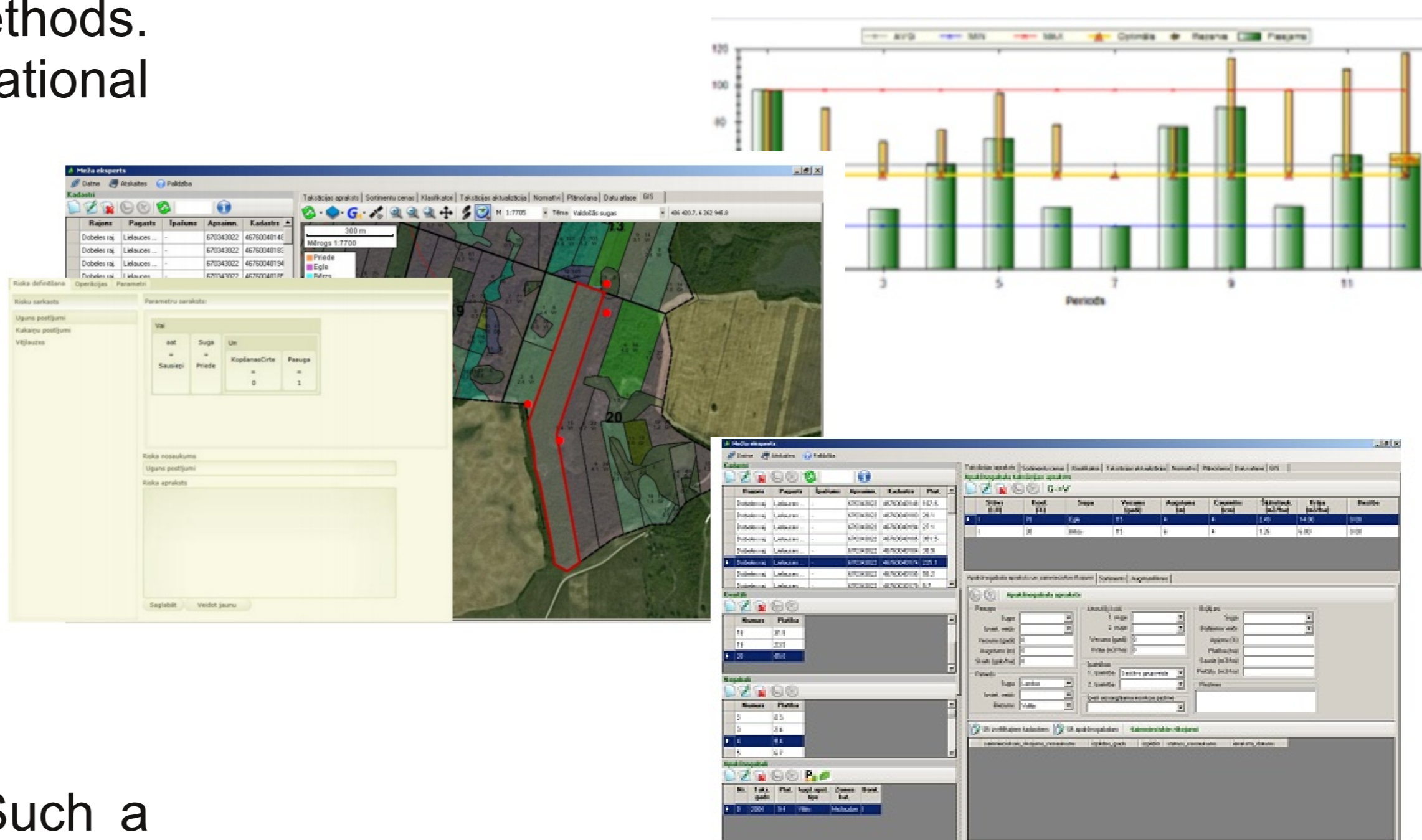
the forecasts of their changes. The major directions of research have been identified in the forestry production cycle, developing innovative solutions, thus enabling to considerably raise the competitiveness of forest owners in the global market:

Practical use of new scientific findings in environmental protection and sustainable forest management under the conditions of global climate changes. On these findings the development of the model of wood growth process and risk management process is based.

Research and approbation of new Technologies (inventory and quality assessment of forest resources, forest utilization, transportation of timber, forest regeneration and tending);

Creating a library of prototypes of data bases, algorithms and computer programme prototypes for ensuring further further research;

Development of research basis.



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