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Savcor's experts offered a good cross-section of the future visions and tools which will help to fill the needs of our industry

JUHANI PÄÄKKÖNEN
Director of Forestry, Kuhmo Oy



possible. This will help us to develop Zenith™ the best raw material acquisition system on the market, concludes Savcor Project Manager **Timo Säynäjoki**.

NEXT GENERATION FEATURES

Zenith™ will be implemented by utilizing the latest technologies available. The new system will include the best features of the old MEKA Wood, but for example the user interface and reporting, as well as map, harvesting and transportation features will be thoroughly renewed using the new technology.

According to Säynäjoki, also the communication between Zenith™ and **MEKA ERP** will be significantly improved.

– Traditionally the forest business and the Enterprise Resource Planning of the sawmill industry have been independent application areas. However, today's sawmill industry wants to have a better access to forest information.

– Along with the new Zenith™, the raw material acquisition module and sawmill industry's ERP system will be located in the same database. Thus, the roadside timber stock levels will be updated directly to the ERP system and the log orders and tree cutting optimization can be done based on ERP sales plans.

– As a result, the information considering the raw material costs can be utilized much better, Säynäjoki continues.

FRESH EXPERTISE FROM DEVELOPMENT PROJECTS

Savcor closely co-operates with the Finnish forest industry and **Metsähallitus** in various development projects. At the moment, the company is participating in the development work of the new Enterprise Resource Planning system for Metsähallitus called **OHJAS**.

– When developing Zenith™, we use the knowledge acquired from the OHJAS project. This knowledge can be applied especially to the planning of harvesting and transportation. For instance, the new system makes the automated planning of transportation possible. In other words, the system shows the location of a warehouse automatically to the forest contractor based on his geographical location, Säynäjoki describes.

Another significant development project for Zenith™ is the **Advanced Tree Cutting Optimization and Simulation** definition project. The project is managed by **Metsä Group**, Metsähallitus, **Stora Enso** and **UPM** with Savcor acting as a system specification expert. The goal of the project is to create a new information system for the forest business. The new system will make the timber harvesting more efficient. ■

First Zenith™ order from Koskitukki Oy

Koskisen's wood procurement company **Koskitukki Oy** has chosen Zenith™ as the new core information system of its operations.

Before the acquisition decision the company evaluated thoroughly its needs and development requirements for a new system. Further, in pursuance to the company's values Koskitukki looked for a reliable and innovative partner who is capable of adapting the requirements of the changing business environment in the development of a new system. After a long procurement process Koskitukki chose Savcor Zenith™.

– Savcor's thorough industry knowledge and significant references as well as their vision of how raw material procurement will change in the future convinced us. We believe the new system we develop in co-operation with Savcor will improve the efficiency of Koskitukki's raw material procurement remarkably, tells **Jussi Joensuu**, Chief Forester, Koskitukki Oy. ■

CONTINUOUS WORK IN RESEARCH AND DEVELOPMENT PROJECTS

Savcor does constant research work within all its divisions by participating in nationally significant research and development projects. At the moment, the company is taking part in the projects aiming at the improved production effectiveness of steel industry and bioenergy production as well as better tree cutting optimization.

Research and development work has been an important part of Savcor's operation since the company was established.

– Active participation in research project activities has a great significance for our competitiveness as it offers us a vantage point to the development within the divisions our company, says Savcor Vice President **Ilkka Rautiainen**.

SIMP – PRODUCTION EFFICIENCY FOR STEEL INDUSTRY

Started in January 2014, **SIMP (Systems Integrated Metal Processes)** is a national research project aiming at improved production efficiency in the steel industry.

Along with Savcor, the other participants are **the Technical Research Centre of Finland Ltd (VTT), University of Oulu, Tampere University of Technology, Outokumpu Tornio** and **SSAB Raahe**. The project is financed by **the Finnish Funding Agency for Technology and Innovation Tekes** and numerous companies and it will extend as far as the end of 2018.

– In the SIMP project our goal is to bring information technology into the processes of steel industry. This means tracking the performance of automation and modeling, says Process Development Manager **Jarkko Vimpari** from SSAB Raahe.



Savcor's contribution to the project is its process diagnostics system Wedge™.

– Our role is to examine and develop existing systems and to map the possibilities to utilize them more efficiently, explains Rautiainen.

As a part of the project, SSAB Raahe will test Wedge™ in a three-month trial period during which the steel mill will investigate system's potential and advantages. The trial period will start in the fall 2015.

– We will make the decision on the acquisition of the permanent Wedge™ license after the trial period at the end of 2015, says Vimpari.

Vimpari sees that Wedge™ has the potential to improve the processes of SSAB Raahe.

– We collect a huge amount of data in our manufacturing processes continuously, but when analyzing it, we have been so far only able to examine one indicator at a time. We expect that Wedge™ makes the analyzing of long causalities possible: for example, we can see how a change at the beginning of the process affects the later stages.

– Savcor has a significant role in the SIMP project. There is a huge number of steel mills like SSAB Raahe both in Finland and abroad, and Wedge™ clearly has the potential to improve their productivity, Vimpari concludes.

FOREST BIG DATA WILL LAY A FOUNDATION FOR THE NEW GENERATION FOREST INFORMATION SYSTEM

The objective of the **Forest Big Data** research project is to improve methods to acquire and process the information from Finnish forests and their growth conditions. Consequently, the project will lay a foundation for a new and comprehensive forest resource information system. It will benefit both the forest owners and the forest industry. The project began in the fall 2014 and it will continue until the end of 2015.

Forest Big Data is a part of **Data to Intelligence** research program funded by Tekes. The research institutes participating in the project are Tampere University of Technology, **Aalto University, University of Helsinki, Finnish Geospatial Institute FGI, Natural Resources Institute Finland LUKE** and VTT. Savcor and **Metsä Group** are partner companies in the Forest Big Data project together with 10 other companies.



Together with Savcor, we examine the possibilities to cut timber, mainly saw timber trees to correspond better the customer needs of sawmills

OLLI LAITINEN
SVP, Development Metsä Forest



Photo: Seppo Samuli

– Together with Savcor, we examine the possibilities to cut trees, mainly saw-timber to correspond better the customer needs of sawmills, says **Olli Laitinen**, SVP, Development Metsä Forest.

– In a wider company consortium, the goal is to create a new and more dynamic tree cutting optimization system. For this we develop ways to determine the forest inventory of stands more accurately, Laitinen continues.

Savcor participates in the project with its Process Diagnostics System Wedge™.

– In order to develop more efficient tree cutting optimization, we have also studied what additional benefits can be gained by better data analysis. Savcor Wedge™ plays a key role in this, Laitinen says.

For Savcor, the project represents an important new field for Wedge™.

– This has been a very interesting project and it opens totally new application areas for Wedge™. Never before has Wedge™ been used to analyze forest industry's tree information, Rautiainen notes.

BEST MAKES THE ACQUISITION OF FOREST ENERGY MORE EFFICIENT

Savcor and Metsä Group co-operate also in a research project called **BEST – the Future Sustainable Energy Solutions**. The goal of the project is to find new ways to make the acquisition of forest energy more efficient. BEST is funded by

Tekes and its participants include 11 universities and research institutes and 22 partner companies. The four-year project started in 2013.

– In the BEST project we will find more efficient ways to look at quality information on energy raw material coming from harvesting.

– The burning properties of wood and the amount of energy obtained vary greatly in bioenergy power plants. This affects both energy efficiency and the durability of boilers, Rautiainen explains.

– Together with an energy company **Fortum**, Savcor has examined how the power plants could benefit from the project. The goal is better utilization of raw material and improved durability of boilers.

Metsä Group is satisfied with Savcor's contribution both in BEST and Forest Big Data projects.

– Savcor has added value to our joint projects especially with their strong industry know-how in the process industry and Enterprise Resource Planning of sawmills.

– Savcor is a very professional company being able to bring expertise to our research projects which we at Metsä Group do not have. Overall, our joint research projects have proceeded in an excellent spirit, Laitinen thanks. ■