

**||**  
*We offer modern interfaces with various applications, full LogForce and WoodForce support, and advanced global positioning solutions.*

MIKKO KERKELÄ  
*Senior Vice President, Savcor*



#### ZENITH, FOR RAW MATERIAL MANAGEMENT

Another significant service provided by Savcor is the latest changes made to the modern forest information system Zenith. The system offers tools that extend from forest planning to harvesting, transport, and completion of the end product.

Zenith's functionality provides users with tools for global positioning, purchasing and sales, harvesting, and transport all the way to the mill gate.

– We offer modern interfaces with various applications, full LogForce and WoodForce support, and advanced global positioning solutions, Kerkelä says.

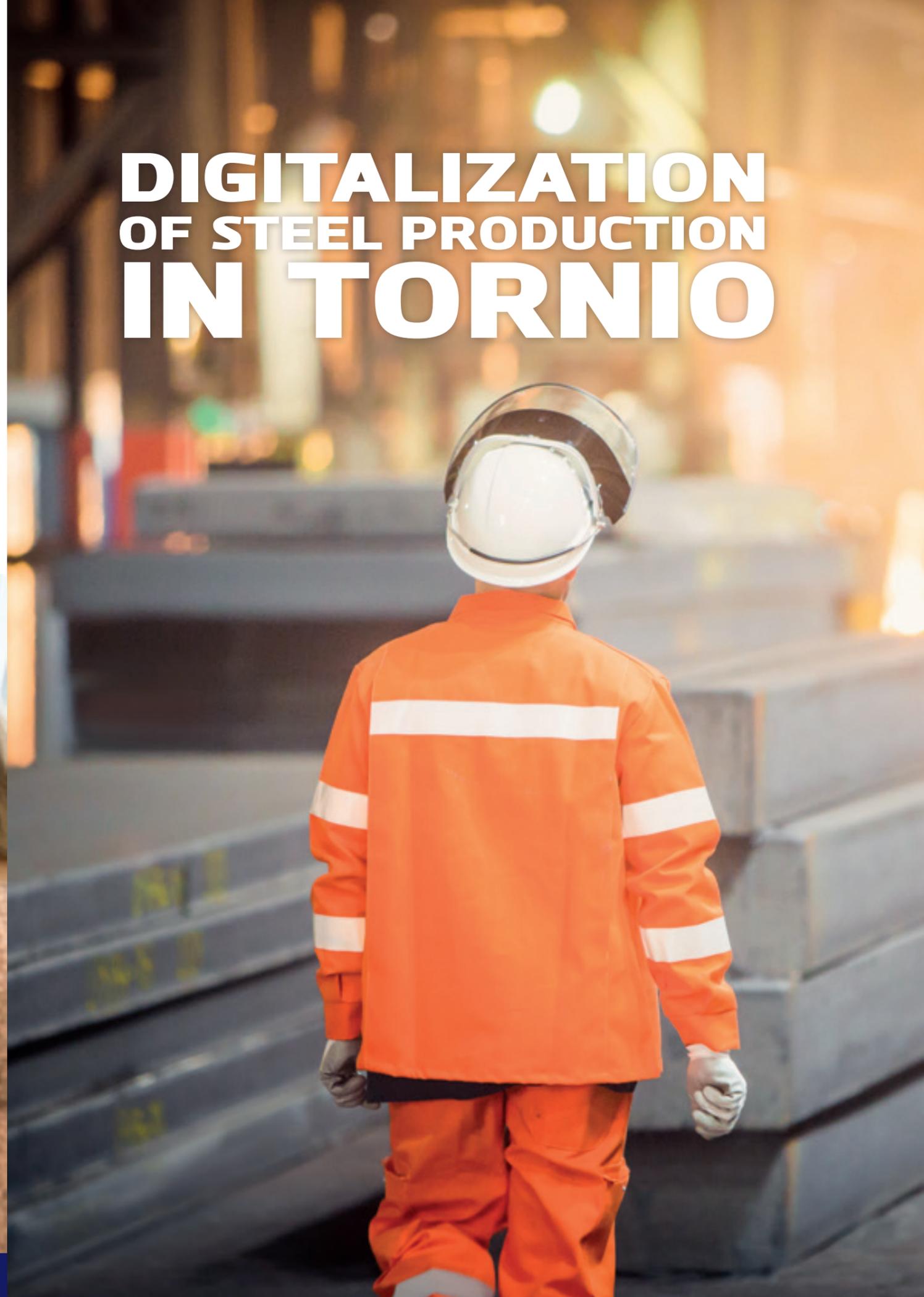
In addition to the modern integration options, the system includes a reminder function: it issues event alerts, highlights important matters, provides task reminders, and pinpoints potential errors.

– With Zenith's mobile application, features of the forest information system are at your disposal on the go and can be used flexibly anywhere, Kerkelä adds.



Group work in process. Jaana Mustonen and Eila Härkin thinking about development proposals.

# DIGITALIZATION OF STEEL PRODUCTION IN TORNIO





Photos: Outokumpu

World's most integrated stainless steel plant is in Tornio Finland.

## The Outokumpu research center in Tornio uses Wedge in its development work

Steel manufacturer Outokumpu is advancing the digitalization of production at its research center in Tornio, Finland. The objective is to support production and incorporate excellent quality with the production parameters. Researchers and development engineers at the Tornio steel mill use the Wedge process diagnostics tool in their work.

– We purchased Wedge while the ferrochrome smelter was being built. It has brought us environmental reporting benefits and helped us with production inspections as well as management of water volumes. The program is used for monitoring various materials and deviations in power flows too. It is a good tool for research and development work and for examining ad hoc ideas and situations, says **Juha-Matti Pesonen**, R&D manager at the Tornio works.

The use of Wedge has expanded from the ferrochrome smelter to production in the continuously active smelting operation.

– Wedge has helped make work easier for the employees. Other opportunities exist also, but we are allowing the use of the tool to grow organically and gradually, Pesonen adds.

### A MAJOR STEEL PRODUCER

Outokumpu is a leading producer of stainless steel globally,

with a crude stainless steel production capacity of 3.1 million metric tons per year. The company produces stainless steel at its facilities in Finland, Germany, Sweden, Great Britain, the USA, and Mexico.

– A special characteristic of our production is that our process includes both continuous production and batch-run periods. When reviewing data, we can examine batch production details relative to the data from the continuous process. Therefore, the batch production tool of Wedge is extremely useful for us, says Pesonen.

According to him, experienced users of the process diagnostics tool can get more out of it, since they are familiar with production and are able to view the data from multiple angles and to visualize things. Also, the functionality of the program has now been simplified, and the program's menu system has been streamlined.



According to one view, optimized processes also reduce the need for energy. We consume energy because our production process requires it, but our ongoing objective is to develop the operations such that we reduce consumption.

JUHA-MATTI PESONEN  
R&D manager, Outokumpu Oy



Applications for stainless steel can be found in the chemical industry, the energy industry, the automotive and transport industry, the oil and gas sector, the pulp and paper industry, and construction, among other fields. The products come in several distinct forms, such as bands and sheets, precision strips, pipes, wire rods, and bars.

### SUSTAINABLE RAW MATERIAL

Customers' requirements pertaining to quality have increased, so production is focused on high quality. Today, the perspective of sustainable development is another highly important factor for both customers and investors.

Stainless steel is fully recyclable and withstands reprocessing well. Its constituent substances can be reused countless times in the production of new stainless steel.

Recycling and a long product life cycle are key elements in Outokumpu's sustainability philosophy.

– According to one view, optimized processes also reduce the need for energy. We consume energy because our production process requires it, but our ongoing objective is to develop the operations such that we reduce consumption, says Pesonen.

### VALUABLE VISUALIZATIONS

According to Pesonen, Wedge has provided the company with cost savings by helping personnel detect deviations in the day-to-day processes and address issues rapidly.

