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RUUKKI – Value Chain Mapping: The Ruukki Reallocator

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In June this year, Eurobios was approached by Rautaruukki, a Finnish premier multinational metals company, to build a software application to map their value chain, and to explore the impacts of production reallocation and other reconfiguration of their supply network.

Rautaruukki primarily serves the construction and various engineering industries in Europe. They produce and supply an impressive array of metal products, from rods and sheets to fully constructed hydraulic cabins for heavy machinery and entire pre-fabricated hangars. They deal in heavy, high value goods right from raw metal up to finished components and have a complex supply network for their production and distribution.

Needless to say the efficiency of this network is key both to their ability to serve and to manage costs. Like many large companies in a variety of sectors that Eurobios has worked with in the past, Ruukki have found that they need to model and analyse their value chain with a view to improving its management, and discover best practice with particular regards to service, inventory, transport and production.

To date, such analyses and policies at Ruukki have mostly been based on simple techniques and software tools, and empirical rules of thumb. Such methods are certainly functional but can be limited, especially when trying to consider the chain as a whole - the interdependencies and complex interactions between the various elements become impossible to capture. More sophisticated methods offer untapped savings which so many large modern companies find themselves pursuing.

Eurobios has developed many such supply chain models and is pleased to be working with Ruukki, led by Jaro Caban and Harri Vahavihu, Supply Chain Directors at Ruukki Logistics and Production respectively, to develop a cross-divisional, multi-tier modelling application which quantitatively models the many details of their metals business. It offers the facility to reconfigure the chain (e.g. replenishment, allocation of suppliers, customers and production) and gives analyses of inventory, machine loads, transport costs, etc. - and maps value across the chain.

This is an exciting project for us since it takes our modelling technology to a new level: generating integrated, value-oriented solutions for a geographically dispersed, highly heterogeneous chain. Most importantly, while the actual application is carefully tailored to the needs of Ruukki, we have drawn on our extensive experience and existing tools to develop a platform that is quite generic and can be customised to a very wide variety of sectors and scenarios.

Currently we are modelling just a part of the Ruukki network, dealing largely with internal supply. We plan to extend this initial project (due to complete this month) to include more product lines, sites, demand forecasts and indeed tiers of the chain right up to end customers. And of course, Eurobios will be looking forward to developing the platform further in future applications with new or existing clients.