

We develop working life. Together.



## Smooth processes and cooperation through simulation

### An example from industry

J.M. Huber Finland Oy	<ul style="list-style-type: none"><li>- J.M. Huber Finland Oy is part of the international J.M. Huber Group, which is under US ownership.</li><li>- The company employs 140 people in Hamina and Taavetti in southeastern Finland.</li><li>- The Hamina plant produces aluminium silicates most of which are used for paper and toothpaste manufacturing. The plant at Taavetti produces sodium silicate.</li></ul>
Project objectives	The aim was to strengthen process-based mode of production, ensure smooth operations, improve customer satisfaction, enhance interaction and management processes and provide a sounder basis for well-being at work.
Project period	2006–2008
Project experts	Sami Sarèn and Risto Tanskanen, Muutostaito Oy



The Hamina plant of J.M. Huber Finland Oy is located at Nuutniemi.

## **Development project at J.M. Huber Finland**

# **More efficient production processes and more satisfied employees**

*For many international companies, globalisation is a development challenge and it is forcing them to upgrade their business processes. This also applies to J.M. Huber Finland Oy, a chemicals firm, which is part of the US-owned J.M. Huber Group. The TYKES project carried out in the company helped it to make its operations more efficient and to improve job satisfaction.*

The two-year development project was launched in October 2006. It was carried out at J.M. Huber Finland Oy's plants in Hamina and Taavetti in southeastern Finland, which have a combined workforce of 140. This was the first time since the 1990s that the company carried out a long-term development project involving all members of its personnel. Thus, there was a real need for development work.

The main aim of the project was to strengthen process-based mode of production throughout the organisation and, consequently, to improve customer satisfaction and to ensure smooth operations. It was important for the employees to learn more about their colleagues' work and to have a better understanding of the process as a whole. Developing and supporting interaction, and improving the workplace atmosphere, management processes and well-being at work were also important project objectives. This was because problems had been identified in employee well-being. The project involved five self-contained parts, which were implemented during a period of two years.

### **Simulation helped to identify areas for development**

Participatory development, interviews, a questionnaire survey, process simulation and development groups were the methods used in the project.

The development project was launched by interviewing 50 members of the personnel at the Hamina and Taavetti plants and by carrying out a questionnaire survey to find out in which areas the organisation should improve its operations. A total of 113 persons submitted responses to the questionnaire survey, which meant a participation rate of 84 per cent. The survey was repeated after the project.

A summary prepared from the interviews and the questionnaire survey was examined in the steering group, in the feedback session intended for all employees and in operations-specific briefings.

Following this, two-day development workshops were organised for all members of the personnel, in which the work processes of the Hamina and Taavetti plants were examined using a method loosely based on process simulation. At the practical level, working models of different operations were jointly examined in the same order as in the production process. Simulation meant that the work processes of each operation were presented using case examples based on actual operations or using other practical methods.

Each group prepared its presentations with the help of outside expert assistance provided by a representative of Muutostaito Oy.

In the small-scale group work carried out in the workshops participants had a chance to discuss the strengths and development needs at different stages of production.

The workshops were successful and helped the participants to focus on the issues with the most urgent development needs. These included cooperation between the Finnish plants and the European sales organisation, smoothness and faultlessness of the process starting with the submission of the order and ending with the dispatch of the products, and workload and well-being of the laboratory staff.

Two working groups were set up after the development workshops. They were assigned the task of planning and implementing solutions to the problems identified in the workshops.

### **Efficient sharing of expertise**

An additional aim of the development project was to make work shifts more efficient, for example by distributing expertise more evenly between shifts.

”We improved work stages and laboratory operations. We also made our customer service, stocks and production more efficient and put the cooperation between the three on a better footing. As a result, production planning and the flow of information have improved, which means that we can prevent our stocks from growing too much. What is produced is also sold. Sales forecasts are now relayed to those responsible for production in a more efficient manner,” explains Riitta Joronen, Director Supply Chain Europe.

Measures were also taken to improve maintenance at the plants. For example, the system of maintenance duty was put on a more efficient basis by making working hours more flexible.

”Maintenance workers used to be on hand for eight hours only but now they are working in two shifts. As a result of the project, maintenance has also been given additional resources. Three new fitters and the reorganisation of work shifts mean that those responsible for maintenance are more easily available,” says Mikko Karhu, the maintenance manager of the Hamina plant.

The plant has also been able to add three members to its production staff. Their duties include evening out loading peaks and overall tidiness and order, as laid out in the new operating models.

In customer service, the measures taken included simplification of work procedures and making expertise-sharing more efficient.

”Our aim is to ensure that, for example, the registration of new customers would no longer require four separate forms and that we could enter each customer into our system using one form. The work to improve procedures is still going on but we are making steady progress,” says Mia Koskunen who is responsible for customer relations at the Taavetti plant.

## **More open and more satisfied personnel**

Most of the objectives were achieved. According to a survey carried out in conjunction with the project, well-being at work and supervisors' skills have improved substantially. Furthermore, there was significantly less disagreement and harassment in the departments that had previously suffered from them. As a result of the project, supervisors are now acting in a fairer way and giving more support and assistance, while at the same time problems are tackled more efficiently and employees' views listened to more closely. In these areas an average of one third of the employees felt that the situation had improved and in a number of work groups the percentage was even higher.

The departments in which supervisors' skills improved also registered an improvement in the overall atmosphere. Likewise, the employees were also of the view that there was now a greater degree of openness and that information was more readily provided, compared with the situation two years ago.

The TYKES project was also used for developing an early-support model for the organisation. The model makes it easier for supervisors to identify and deal with the situations connected with well-being at work at a stage when efficient action can still be taken. It was agreed that the model would be introduced within a period of six months.

## **Everybody around the same table**

The steering group and development groups of J.M. Huber Finland Oy will continue to hold meetings. Because of the company's organisational structure, J.M. Huber does not have a management group in Finland, which means that those responsible for different operations do not discuss development matters on a regular basis.

"The project steering group has provided a good forum for following the implementation of the development measures. At the same time, it has also offered an opportunity for representatives of different operations to meet face-to-face from time to time. The steering group has provided a forum for discussions and everybody has been able to present ideas for development and monitor the implementation," says Riitta Joronen.

Quality requirements concerning the products and the production processes became stricter during the project. For this reason, new processes have been introduced at the Hamina plant and improvements have also been made for ensuring cleanliness. The operating approaches developed and found workable during the TYKES project will enable J.M. Huber Finland Oy to meet future challenges.

### **The development work was based on**

- participatory development
- interviews
- questionnaire survey
- process simulation
- workshops and development groups.

### **The results and changes in operating approaches**

- Reorganisation of shifts
- Improvements in production planning
- The floor plan of the laboratory was modified so that it would be in compliance with the requirements of the work organisation.
- An early-support model was developed.
- Between 25 and 40% of the personnel felt that supervisors were doing the work better and that interaction had improved.
- Between 40 and 60% of the personnel felt that there was less disagreement and harassment.
- Between 15 and 20% of the personnel felt that they now had more say in matters concerning their workload and pace of work.
- There is now more openness and information also provided more readily.