



PRODUCTIVE AGEING: SHIFT PLAN REFORM AT POLYFELT (NOW TENCATE)

1. Organisations involved

TenCate Geosynthetics Austria GmbH (formerly Polyfelt)

2. Description of the case

2.1. Introduction

At the end of the 1990s Polyfelt found its workforce was ageing; the average age of shift workers was relatively high and traditionally they had an early retirement age. The works council noted that this issue would impact on working conditions and asked for action to be taken. A discussion process started and the management agreed to reorganise workstations, adjusting them to the workers' age and redesigning shift schedules. Good shift schedules were seen as key to a better balance between working life and private life – reducing stress, the risk of accidents, sickness and early retirement. Shift plan reform was therefore carried out as the main part of a productive ageing programme.

For more than 30 years Polyfelt developed and manufactured geotextiles for road and railway construction, water engineering and tunnels, reinforced earth structures, drainage systems and landfills. Polyfelt was a subsidiary of Austrian group OMV, which was taken over by Royal Dutch TenCate (RTC) at the end of 2005. The name changed to TenCate Geosynthetics Austria GmbH. The company's main production units and research facilities are in Linz.

In 1997 the average age of shift workers was 47 years and their traditional early retirement age 52. This meant that half the shift workers would be expected to retire in five years. An internal survey showed that one of the main problems with the company's shift roster was the rather short rest period of two days off between shift periods. The first day off was after a night shift, and most shift workers used the day partly for catching up on sleep. The second day before a morning shift was also used partly for sleeping. Private life was restricted and often limited to rest and recuperation. Older workers in particular reported a progressive degree of fatigue and need of regeneration. Standby shifts posed another problem, complicating private and family life. Furthermore, shift workers felt a lack of formal training as well as supervision, which resulted in high stress levels at work. Shift schedules and weekly working hours were mostly the same for young and older workers, although the workers' work ability, interests and social skills are very different. In addition, night shift tolerance generally decreases with increasing age. It was recognised that the best way to overcome these problems would be to develop an age-adjusted shift work system through a participatory approach, supported by expert knowledge and technological tools.

2.2. Aims

Based on the results of an internal survey, expert knowledge and suggestions from all operational actors concerned, the following goals and preconditions were defined by the shift planning group at Polyfelt:

Adjustment to age

e.g. development of optional shift schedules; reduction of working time; designing of an age-adjusted shift schedule with special respect to night shifts of older workers.

Safeguarding of jobs

e.g. productivity benefits by maintaining the experienced workforce; less sick leave due to better working conditions.



Stress reduction

e.g. by advanced vocational training and fewer working hours; giving workers more control of their own work; optional training sessions integrated in shift schedule (stress training, competence training, personal fitness).

Maintaining productivity

e.g. shift work adjusted to the worker's age reduces sick leave and costs incurred through early retirement; reducing standby shifts; flexible shift schedules allow a new administration of equipment.

Quality of private life

e.g. longer shift breaks with more days off for regeneration; better compatibility with social life (weekends). The works council took an active part in the process, with the aim of safeguarding workers' health. The management focused on higher productivity, optimised operational processes and raising the image of the company as a more attractive place to work. The financial constraint was that the new shift plan should not raise the company's personnel costs.

2.3. What was done, and how?

Traditionally, shift work was characterised by a very high early retirement rate due to the strain on individuals of night shift work in particular. In addition, new technological developments have increased the cognitive demands of the work, while decreasing the physical work content, and have raised the feeling of stress in the ageing workforce.

Stimulated by the works council, the management made the strategic decision to carry out an age-adjusted re-organisation of the shift work. A workgroup for the shift plan reform was established, chaired by a member of the works council. The shift planning group consisted of shift workers, leading staff members, workers' representatives, occupational physicians and working time experts from the IBG-Institute in Vienna. The IBG-Institute provided consultancy services and evaluated the results of the project. Two workshops were held with participants from every key group. In addition the chairman of the shift-planning group received a grant from the Upper Austrian Chamber of Labour to work on this issue.

The occupational health experts drew up an employee questionnaire to obtain details on demographic structure, absenteeism, working culture and personal life. The survey was designed to obtain information about the burdens that shift workers experienced and what things they wanted to change at work. Suggestions for new shift models were developed based on the information given by the workers, experience from other companies and expert knowledge.

The decision process for the new shift schedule was supported by using special computer software called 'Arbeitszeitassistent/Shift Plan Assistant'. This software permits a rapid calculation of new shift schedules by input of different variables and visualisation of results. The wage calculation for the different new shift models was done by the personnel department of the company.

The new shift plan model and the financial consequences, which were worked out in the planning group, were presented to the management and the works council for approval and were presented and explained to the shift workers. A pilot project in a single work unit was implemented before final approval. In a poll 90% of the Polyfelt workers voted for implementation of the new shift schedule.

2.4. What was achieved?

Before the reform started, the shift schedule was a 4-crew shift schedule with an average 39 hours worked per week and several standby shifts per year.

After intensive discussion and a pilot test the new shift plan was introduced with the following main changes:

- reduction of working time to 35 hours a week

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- reduction of night shifts from 8 to 6 per month
- longer shift breaks with 3 to 4 days off
- new 5-crew shift schedule
- no standby shifts
- 3 new jobs were added

The shift plan reform was accompanied by several other tools, including health promotion training and advanced vocational training for shift workers. Additional offers were made to the employees, such as hot meals during the night shift.

The reduction in weekly working hours due to the shift plan reform would have resulted in a wage reduction for the shift worker. This problem was minimised by a bargaining process in which wage increases for the following two years were credited against the wage reduction. This meant that rather than losing money, workers renounced future wage increases for a short period.

Evaluations took place six months, one year and four years after the shift plan reform. The workers reported an improvement in their quality of life, less stress at work and a better quality of sleep at home. The surveys reported higher job satisfaction among the shift workers and better teamwork. An evaluation four years after the reform showed that no shift worker had left the company because of sickness or early retirement since the reform took place.

For the company the changes resulted in economic growth, better work skills, more productive workers and less early retirement. The machine-operating time increased to 93% and productivity was enhanced. A reduction in sick leave by an average of three days a year was reported.

In the past decade Polyfelt has strengthened its efforts to retain workers in the company by improving working conditions. As management became aware of the importance of intergenerational differences, they were more willing to use the experience of older workers to help benefit younger colleagues, thereby enhancing process quality. In 2002, knowledge management was implemented to enable the transfer of older workers' experience. This included teaching experienced workers to create manuals and training programmes designed to transfer their practical knowledge to younger workers. These measures give older workers meaningful tasks and individual recognition, and reduce physical demands on them. They also help younger workers to develop competencies faster and with less stress. In recent years, cultural initiatives have accompanied efforts aimed at human quality management and helped support the retention of older employees at work.

Problems faced

The reduction of the weekly working time to 35 hours was not initially welcomed by Polyfelt's holding company, OMV. Discussions between management and works council were necessary to cross this line. The expected enhanced productivity, the optimised operational processes, a higher job satisfaction among the workers and the reduction in sick leave were arguments used to persuade the management. Some shift workers were concerned about a wage reduction due to reduced working hours. The shift planning group asked them their opinion and the majority of the employees said that they would accept a wage reduction up to 5% in return for fewer working hours. Based on this statement the problem of wage reduction was solved in negotiations. The company took over half of the salary cut and shared the economic benefits of the new shift schedule with the employees. The other half was credited against wage increases coming out of collective bargaining processes at national level in the following two years.

2.5. Success factors

The corporate approach used at Polyfelt to work out the new shift plan was a major success factor. The co-leadership by management and works council on this issue leads to a win/win



situation for all. The focus was on health and process quality by cultivating creativity and professionalism among all staff members to find intelligent solutions.

Another key feature was the workers' participation in the reform process. Suggestions were made by shift workers and occupational health experts took their views into account. The discussion process included all key groups within the company. The marketing potential of the shift reforms was one of the motivations for the project. It increased the perception of the company as a more attractive place to work in the region. Polyfelt is now seen as a leader in offering shift work guided by human principles.

In the past decade the company has strengthened its effort to retain workers by improving working conditions. This effort is incorporated in its overall human resource policy, which emphasises equal treatment of all employees, including older staff. The shift plan reform was therefore not an isolated action.

2.6. Further information

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2.7. Transferability

Transferable elements of the productive ageing activities at Polyfelt include:

- Co-leadership by management and works council to find intelligent solutions.
- Participative process in developing the programme with shift workers involved.
- Using consultancy and evaluation by external advisers during the whole process.
- Change of management values and attitudes towards sustainability, productive ageing and generation-balance.
- Starting a specific human resources management and specific methods for each generation of workers.
- Provision of supplementary measures of health promotion and vocational training sessions for workers.

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