Hungary: VELUX Magyarország Kft. case study

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About

Case study name:
The greening of industries in the EU

Country:
Hungary

Organisation Size:
500+

Sectors:
Construction and woodworking

This case study introduces VELUX Magyarország Kft., a Hungarian member of the international VELUX Group producing roof windows. The two green business practices studied here are the installation of a new chip extraction system, which reduced energy consumption significantly and improved the working environment, and a call for ideas for employees on ways to reduce energy consumption which led to many good suggestions that will be implemented by the company. The case study focuses on the new chip extraction system, but summarises best practices and their effects on the working conditions of the employees.

Introduction

It is difficult in Hungary to find companies that are introducing green business practices. An environmental commitment is not widespread, especially during the economic crisis as companies' main aim is to survive. There are good national and local initiatives for recycling systems and environmental studies, and companies of course must comply with regulations concerning the minimal impact of their operations on the environment. Catastrophes, like the red mud disaster in October 2010 which destroyed surrounding villages, are slowly opening eyes to the need to strengthen and comply with environmental regulations. However, this is more likely for consumers than for the companies themselves.

The chosen company for this analysis is VELUX Magyarország Kft. (VELUX Magyarország Fertődi Építőkomponens Kft., VELUX Hungary Ltd), which is moving ahead in its environmental thinking following the core green business practices of the Danish VELUX Group. VELUX Group has introduced greening activities not just to comply with customers' aims to save energy but also to be environmentally friendly during the production of its roof windows. VELUX's operations come under NACE code C16.23 – Manufacture of other builders' carpentry and joinery.

The factory of VELUX Magyarország Kft (FERBAU) has been certified to:

- ISO 14001 (environmental management system) since 2002;
- OHSAS 18001 (occupational health and safety management system) since 2005;
- Programme for the Endorsement of Forest Certification (PEFC) and Forest Stewardship Council (FSC) (ensuring sustainability of forest management) since 2005.

VELUX Magyarország Kft aims to reduce its carbon dioxide (CO_2) emissions by 20% by 2012 and by 50% by 2020 compared with a reference year of 2007.

Drivers and motivations

The main drive and motivation shaping the green change process at VELUX Magyarország Kft is the core green business practice of VKR Holding, which must be implemented in all its branches.

Initially management concentrated on short time and direct environmental effects such as waste production. Among other initiatives they have introduced selective waste collection throughout the company.

Since the new corporate climate strategy was introduced and beyond the short-term effects of production, more attention is being paid to

reducing CO_2 emissions according to national and international directives. This is achieved particularly through reducing energy consumption which accounts for almost 100% of related CO_2 production).

VELUX Magyarország Kft. makes efforts to keep up with the latest technology offered by VELUX Group. The main factors for choosing high technology systems were to reduce energy consumption and to increase efficiency and cost-effectiveness. However, improving working conditions for employees was also an important factor.

Another factor might be the competition among companies in Hungary. As the idea of saving energy for both cost savings and environmental benefits has increased interest in better insulation of homes and offices, a number of other companies have emerged offering well-insulated windows. VELUX Magyarország Kft.'s competitive advantage in terms of being environmentally friendly is not just benefits for the consumer but also during fabrication. Hence its factory is complying with the need for energy saving during the economic crises while remaining in the market despite the crisis.

With the introduction of such green businesses practices VELUX Magyarország Kft. also achieves a better image and reputation as an environmentally friendly company in Hungary.

Green business practices

Two green business practices are studied here:

- the construction of a chip extraction system that reduced energy consumption significantly and improved the working environment of employees;
- a call for employees to suggest ways to reduce energy consumption – leading to many good ideas that will be implemented by the company.

Chip extraction system

A new chip extraction system featuring advanced technology became operational in 2010. The main reasons for changing the chip extraction system were to reduce energy consumption and to improve efficiency, but improving working conditions was also important. The new chip extraction system had a major impact on CO_2 emissions as it reduced energy consumption during production by 40% with an associated reduction in CO_2 emissions of 490 tonnes per year. Before the new system was installed, chip extraction involved distinct subsystems. Making chip extraction an integrated system meant that the factory became less polluted, leading to better working conditions in production areas.

The company planned the change carefully, particularly due to the short time available (without the chip extraction system the site would not be able to operate). During the reconstruction period, the fire service was the only external authority that needed to contribute. The chip extraction system has an extinguisher system, which while not necessary under Hungarian legislation, needs to be licensed if it exists. The company's good relationship with the fire service and the helpfulness of the fire service meant that the licensing process was short and easy.

Call for energy-saving ideas

The management asked call for employees' ideas in summer 2011. This was a special form of the permanent call for ideas from employees about any ways to make work more efficient or more environmentally friendly and led – as a side effect – to better working conditions. In the frame of this particular call employees could send their ideas about how the company could reduce its energy consumption and through this its CO_2 emissions. The company is convinced that the participation of employees through the call for ideas strengthened the emotional affinity of employees towards the company, which has probably had a positive impact on productivity and opinions on working conditions.

Sixteen applicants submitted around 30 ideas during the two months' period of application. All those who sent in ideas were rewarded with a gift of a solar-powered mobile charger. Some of the ideas introduced by employees have already been applied such as shortening the preheating of the washing system, while more general changes will be applied over the course of the next year. Two examples of these ideas that have been accepted but not yet applied are:

- rearranging the lightning of the working halls, which should reduce energy consumption substantially according to interview partners;
- using waste heat for heating working materials (no detailed figures provided).

Impact on employment

VELUX Magyarország Kft. has around 1,000 employees of whom the overwhelming majority are low-skilled blue-collar workers. The production process is highly automated and so skill development is only necessary for a few workers.

In these economically sensitive times, the main positive effect of the green business practices implemented by VELUX Magyarország Kft. was that there have been no dismissals. In other companies in the construction sector, the number of dismissals were among the highest in Hungary's industrial sectors.

The second most important effect concerning green thinking was the environmental commitment of managers, employees and even customers.

General training

All employees are highly likely to have received training related to the effects of their work on the environment and CO_2 emissions. Training was specific to the job in which the particular employee works. For example, engineers who plan workflow received knowledge specific to their work (the training was given by an external company) while other employees got general training and lecture about environmental problems and sustainability (given by the company's own environmental staff).

Employees responsible for occupational health and safety issues continuously monitor the implementation process and inspect the new technology and other greening practices. They report any problems for the workforce in general but also in connection with the introduction

of new technology. However, no problems have so far been reported during the introduction of the green business practices.

The role of this training is especially important in the case of employees working in the field of development as the environmental effects of a technology are determined when it is planned. The training is repeated and compulsory (with different content) in every year according to the annual occupational safety and health training mandatory under Hungarian law.

The company is continuously trying to reduce the number of occupational accidents. All managers are required to identify pro-actively all kinds of problems and the importance of people's well-being – not just customers' but also employees' well-being is emphasised. Therefore among the training provided by the company is training that aims to reduce the rate of accidents at the workplace and thus improve working conditions permanently.

This training is not connected directly to the green business practices described above, but is just as much is needed because the new systems operate a little differently to the old ones. Changes like the rearranged lightning system do not require specific knowledge, but employees are passively positively affected by its good effects.

New chip extraction system – a passive measure

The reconstruction of chip extraction system directly affected about 100 employees. The reconstruction has contributed to reducing CO_2 emissions and enhanced the working conditions of employees in the affected jobs through reducing noise, airflow and dust in the woodworking hall. While the previous chip extraction system worked continuously and had contact with the air of the woodworking hall, the new system is 90% enclosed, which reduces airflow and noise.

Only a few of the site's 110 white-collar workers are supervisors in the production halls where they would have previously suffered from the problem of the polluted air and noise.

Additionally there is a large number of sales specialists most of whom work without a regular contract but as freelance sales representatives around Hungary. These people receive training on sales and marketing referring to the green aspects of the company's products. This happened during the process of implementing the new chip extraction system, emphasising also aspects of environmentally friendly production.

Calls for ideas – a more active measure

Everyone in the company could submit ideas to improve the working environment and to save energy. Some of those green business practice ideas that have been implemented have not affected a large number of employees. Other changes connected to reducing energy consumption such as the planned rearrangement of lightning have affected all employees because working conditions were improved. However, the number of employees and the required skills for given positions have not changed as a consequence of the new green business practices.

Another initiative for social collaboration of the company to enhance the commitment of the employees towards energy awareness was another call for employees called 'Sustainability at Home' (*Fenntarthatóság otthon*). Within the framework of this call employees could send in photographs of a practice that reduced CO_2 emissions or energy consumption in their home and which could be best practice for other employees. Some 50–60 employees answered the call. Managers organised exhibitions in every working hall to promote the ideas represented by the photos. The company plans to take this exhibition to nearby schools and local government offices near the factory sites. The company already regularly organises lectures about environmental problems and sustainable architecture in neighbour schools.

In the case of all calls for ideas, managing of chosen ideas should be mentioned here. Those ideas that have already been applied did not require detailed planning and there were no difficulties during implementation. In the cases of other ideas, the bottleneck in implementing them is the available number of experts such as engineers who are necessary for the implementation. Generally the company implements new ideas or changes in two phases. The implementation begins with a pilot phase (for example, in part of the workplaces) in which fine tuning and last minute decisions occur. Afterwards the refined changes are implemented in the whole company.

Before the implementation of the new technologies, the appropriate public authorities were asked for approval. The company went through a bureaucratic process of application and permission to receive the necessary documentation. This process was not easy and took some time. The company's application to reconstruct the production process into a much more ecologically friendly one did not support a quicker permission procedure by the public authorities.

Compared to the advantages there was almost no disadvantages in these cases. The only one was a two-week pre-planned production downtime and the cost of reconstruction. However, both these costs have been returned through reduced energy consumption.

In relation to other companies in Hungary, the example of VELUX Magyarország Kft. has contributed to a highly developed ecological understanding (under Hungarian conditions) not only of the workers themselves but also of their family members. Therefore the multiplication effect can be estimated as high. The community activities as mentioned above with partners in schools and local governments (that is, the exhibitions about ecological friendly living) have probably started to change the behaviour of the local communities.

The public authorities have no substantial roles in facilitating the development of skills and other working conditions. However, a regular professional education course for environmental technicians was introduced in 2010 in the nearest public professional education centres in Mosonmagyaróvár and Fertőd. It is highly likely that this development was related to VELUX Magyarország Kft., which is one of the region's larger employers and one of the top 10 in terms of business results.

Conclusions and recommendations

The most remarkable thing in the case of VELUX Magyarország Kft. is the presentation of the many different ways in which a company can enhance sustainability in parallel with improving the working conditions of employees for which an example is the reconstruction of the chip extraction system.

Another important lesson to be learned is the concept of asking for ideas from the company's own employees. A 'call for ideas' is an ideal tool for getting new ideas, increasing the commitment of employees to the company and to sustainability, and solving those problems that affect employees most (that is, they also reduce daily stresses as they have a solution for them).

It could be also important that environmental awareness exists in all levels and locations of the business philosophy and operation of the company, from the annual training programme through selective waste collection and PEFC/FSC certificates to the rethinking of the lightning system.

The success of the strategy can be measured by the following.

- There were no dismissals during the crisis even though there were times when working hours were reduced to four days a week working time.
- The company announced recently that there will be an additional investment of €1 million in the production of sun panels in 2011.
- The company is supporting local communities, including a number of its own employees, by improving the environmental knowledge of citizens.

In relation to other countries it is clear that the philosophy of green production has not really arrived in Hungary and in Hungarian legislation. The example of VELUX Magyarország Kft. clearly shows the status of green production at company level. A company that is highly engaged in environmentally friendly products and green production is driven primarily by its own values and not by legislation. The impact of legislation on workers' motivation is positive and the risk of layoffs is minimal even in a crisis period, as the example of VELUX Magyarország Kft demonstrates. It is recommended that the authorities offer a wider range of political and administrative incentives to companies to encourage them to initiate green production.

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