

Material audit improves production

At Lumon Oy, a company manufacturing balcony facade products and glazed terraces, the commissioned material audit turned out to be a productive overall appraisal. The audit produced a total of 68 proposals for action, with an annual savings potential of almost EUR 800,000.

In 2010, Lumon's Kouvola plant was the subject of a material audit carried out using the Motiva's audit model, the purpose of which is to identify measures to improve material efficiency in production. The audit covered costs related to raw materials, utilities and energy commodities, and labour. The material balances focused particularly on the material flows in the production of glass and aluminium profile packages for three of the company's main products.

– The most significant savings are achieved by improving the optimisation of glass jumbo sheets, through more detailed analysis of wastage, and by reducing aluminium profile sawing waste, says Production Director **Pekka Oikarinen** from Lumon.

Staff actively involved

Lumon's material audit based on Motiva's model was conducted by Etteplan Oyj. Important contributors to the results were the commitment shown by Lumon's key persons and the enthusiasm of the staff. The brainstorming workshop method combined with preliminary information on the findings of the material audit was found to be successful. This allowed ideas to start brewing in good time before the appraisal.

The majority of ideas for material savings came from the company's own personnel, and there were some gems among them. The new ideas included those for improving the cooling of the glass grinding production line. The cost of wasted materials and the calculated savings potential of almost EUR 800,000 motivated the participants of the audit and workshops. The tacit knowledge of production staff may prove to be extremely valuable capital when companies look for targets for improving operational efficiency. The audits bring out the tacit knowledge.



- **Lumon Oy** manufactures, sells and installs balcony façade products and glazed terraces.
- The main raw materials are aluminium and toughened or laminated glass.
- The products are manufactured and designed mainly at the Kouvola works. The company has a second factory in Tampere and subsidiaries in Germany, Norway, Spain, Sweden, Switzerland, Russia, Canada and China.
- The company employs over 600 people.

Material audit's findings

- 68 proposals for action
- an annual savings potential of almost EUR 800,000

Top 3 actions

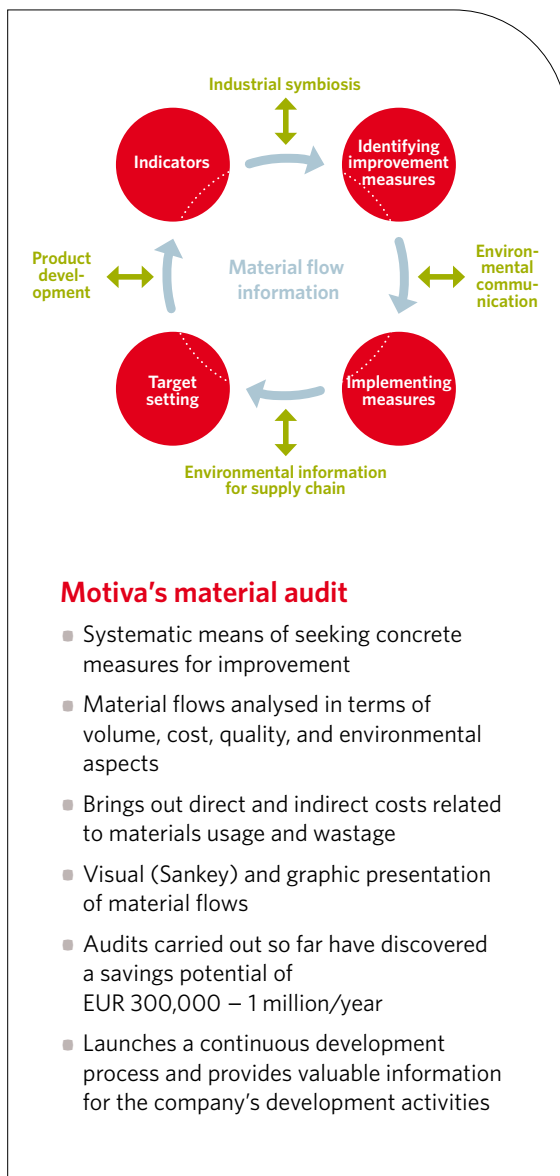
- changing ways of action
- meters for the use and monitoring of materials
- waste monitoring system



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Comprehensive review is beneficial

Companies are aware of the need to improve the efficiency of material usage and to take a positive view of the issue, but often their own resources do not stretch to systematic development work. The audit is a tool that adds structure to the activity, brings financial benefits, and saves natural resources and the environment.

An analysis of the current situation facilitates the initiation of development projects emerging from it and helps to allocate the resources to the most effective measures for improving materials efficiency.

– We have customarily measured and analysed the wastage in the various stages of the process in a different way. Now the approach was a comprehensive review: how many finished products we can produce from the raw materials purchased, Pekka Oikarinen comments.

The audit results were utilised at Lumon by creating a more accurate system for monitoring wastage. The results were also used as a basis for investment calculations.

– Some of the proposals brought us considerable savings in materials and costs, and as a result we have already saved EUR 400,000 in a year, Oikarinen says.

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