



EPSRC Centre for INDUSTRIAL SUSTAINABILITY

CASE STUDY

Making Sense of Eco-Efficiency with the Capability Assessment Grid

Altro is a leading UK manufacturer of safety flooring and wall cladding systems. Driven by a continuous improvement spirit, the company already had notable achievements in waste recycling and process improvements.

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The Challenge

As in many process industries, Altro has traditionally focused on product quality at process level with less focus on progress towards energy and resource efficiency at facility level. Part of the reason for this is that although energy and resource efficiency were an objective supported by top-management, it has not always been clear how this objective translates to daily operational practices. Altro were looking for a way to enhance their understanding of sustainable manufacturing and to design an ideal sustainability plan for their business

Our Approach

The Capability Assessment Grid for Eco-Efficiency (CAGE), a practice maturity assessment tool developed as part of a PhD research project, was used to help Altro break down the concept of eco-efficiency into workable packages of improvement areas. The tool has been designed in a way that grades types of manufacturing

practices on their potential to enhance eco-efficiency across a range of organizational levels (from process to top management). The application of the tool was performed in two phases. First was a self-reflection phase where Altro's engineers and managers were asked to provide their perspective of Altro's production system maturity. The second was a workshop phase which provided all of the interested practitioners with a structure to discuss the strengths and areas for improvement in the production system as well as the capabilities that can support improvements in energy and resource efficiency. "[The process].... did back up what we already knew and what we needed to do and gives some credibility to the message we need to give to the Board on the future direction of our company sustainability programme."

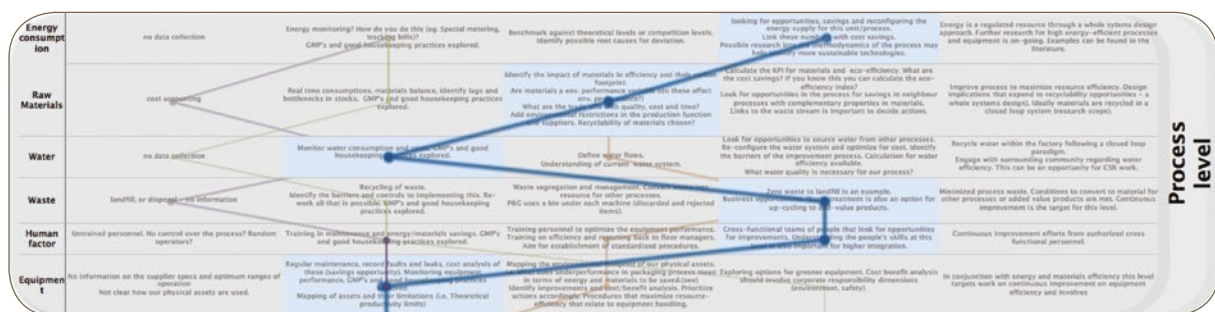
Outcomes

CAGE helped deconstruct the idea of eco-efficiency and build a case for eco-efficiency improvements to present to

top-management. One of the outcomes was a step change that involved engineers being able to express a need for sustainability benefits when looking into future projects. "It was a benefit for us all to have an open and honest discussion with ourselves regarding eco-efficiency. We now just need to do the work internally to understand where we need to be going with sustainability and what steps will add value most."

Next Steps

CAGE can be applied in various scenarios and industries. The tool is currently being used to investigate the alignment of maturity across the supply-chain for a company that outsources its production. The aim is to understand what parts of that system can effectively become vehicles of improvement across all stakeholders to promote energy and resource efficiency. For more information contact doctoral researcher Lampros Litos, ll443@cam.ac.uk.



Part of a CAGE assessment grid