

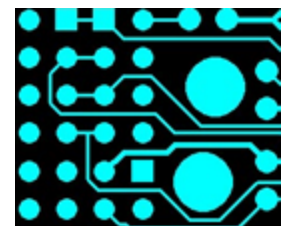
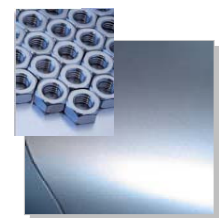


Project Fact Sheet No. 4

Updated: September 2011

Advanced Tools for SURFACE Finishing Processes to Optimise ENERGY Efficiency (SURFENERGY)

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| Programme area: | SAVE, Industrial excellence in energy |
| Status: | Ongoing |
| Coordinator: | Ian Dalrymple C-Tech Innovation Ltd, United Kingdom E-mail: ian.dalrymple@ctechinnovation.com Tel: +44-1513472908 |
| Partners: | Protection des Métaux, France Env-Aqua Solutions Ltd, United Kingdom Union des Industries de Traitement de Surfaces (UITS), France European Institute of Printed Circuits (EIPC), Netherlands |
| Website: | www.surfenergy.eu |
| Objective: | Implementation of efficient energy management in Surface Finishing and Printed Circuit Manufacturing SMEs |
| Benefits: | Strengthen SME competitiveness through energy efficiency solutions based on analysis of generic production processes |
| Keywords: | Energy Efficiency, Energy Management, Technology Intelligence, Best Practice |
| Duration: | 09/2008 – 08/2011 |
| Budget: | € 1,075,861 (EU contribution: 75%) |
| Contract number: | IEE/07/487/S12.499393 |



Short description

The specific overall objective of the action was to strengthen competitiveness in the surface engineering and printed circuit board industries by achieving the wide introduction of energy efficiency measures. The aim was to overcome the non-technological barriers to the introduction of these measures through the following two main outputs:

Dissemination: An extensive dissemination programme was implemented and is continuing with targeted dissemination activities through trade associations and other routes to increase awareness. The aim is to advise the large number of stakeholders in the target sectors. The main dissemination route is implemented via the project website. All project outputs are being disseminated widely and are freely available. Good geographical coverage is assured in general by the activities of the trade association partners UITS and EIPC. Other dissemination mechanisms supporting the main approach were: publications, posters, events, presentations, newsletters.

Energy Efficiency Advisor: The aim was to develop a web-based tool, later named the "Energy Efficiency Advisor", to assist companies in the printed circuit board and surface finishing sectors to reduce energy use and costs by analysing, understanding and improving the efficiency of energy using manufacturing processes. The project outputs are intended to be readily accessible and user-friendly for the SME users. In order to easily access all this information, the aim was to incorporate the functions into a simple interactive toolkit format on the project website to enable industrial users to identify energy efficiency gains that could be achieved for a range of specific generic processes used in these sectors.

The project has been completed, but across the partnership, dissemination actions will continue.

The SURFENERGY project website www.surfenergy.eu will be maintained for at least 2 years after the project completion date of 31st August 2011.

Expected and/or achieved results

Achieved Results

Energy Efficiency Advisor: The project has fully achieved its aims to develop a web-based "Energy Efficiency Advisor" to assist companies in the printed circuit board and surface finishing sectors to reduce energy use and costs by analysing, understanding and improving the efficiency of energy using processes. The advisor and its many functions are available at the project website for all registered users. The project outputs are intended to be readily accessible and user-friendly for SME users. In order to easily access all this information, the functions are incorporated into a simple interactive toolkit format to enable industrial users to identify energy efficiency gains that could be achieved for a range of specific generic processes used in these sectors.

Energy Efficiency Advisor Outputs Achieved:

- Interactive toolkit spreadsheets (the key components of the advisor) providing financial projections to enable selection of the most energy efficient processes, materials & equipment combinations for generic production processes used in the target sectors, including energy cost benefit analysis to appraise equipment costs
- An on-line energy efficiency benchmarking application for the collection, analysis and reporting of data to enable manufacturers to compare performance to an industry standard
- "Path to Energy Efficiency" Interactive, on-line interface enabling easy access and use by industry sector users
- Translations of the energy efficiency toolkit spreadsheets and the on-line benchmarking application into a range of languages
- Definition of Measure lists and Key Performance Indicators relevant to the industry sectors
- A Technological Best Practice Guide covering the process chemistries and equipment employed in both surface finishing and printed circuit manufacturing
- Technology Intelligence gathering on new, emerging technologies and market drivers, leading to a road map and specific opportunities for energy reduction in manufacturing processes
- A simplified LCA approach to complement the detailed energy flow assessments
- Advice on Energy Management Systems; Energy Auditing; Ideal Factory Priorities

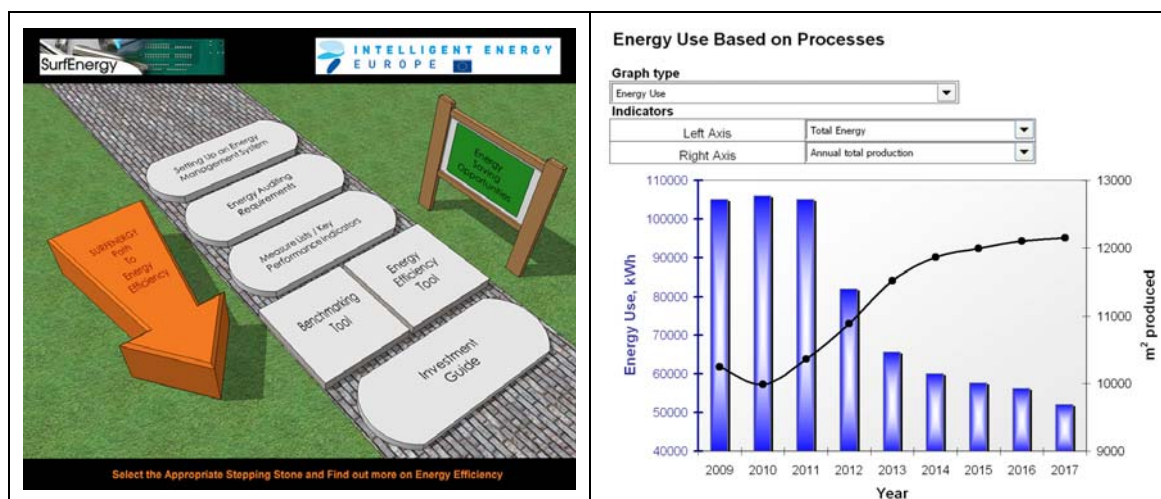


Figure: The "Path to Energy Efficiency" interface and an example of an output from the Energy Efficiency Tool

Lessons learnt

Dissemination Strategy: As specified in the work plan, the project outputs were completed at Month 30 (on schedule). This meant that only general awareness dissemination was feasible prior to the "Product Launch" of the Energy Efficiency Advisor after Month 30. In spite of significant effort expended in the general awareness dissemination phase, the number of registered users on the project website remained low. Only when the product launch was initiated did the number of registered users increase significantly.

Interaction with SMEs: From the early stages of the project, it was clear that good interaction with SMEs can be achieved by direct one-to-one contacts between consortium members and senior personnel in the companies. This approach is much more effective than indirect methods, such as email distribution lists.

Project Events: The programme of events was generally considered to be a rather ineffective method of reaching the predominantly manufacturing SME target audience. Attendance at events is generally a low priority for these manufacturing companies. The IEE project events should be linked to other events or combined with other project dissemination actions in order to improve attendance. Also, articles reporting the events and/or dissemination of the presentations from the event via appropriate publications and websites is important to expand the audience.