GENES NEWSLETTER

February 2014

Integrated Software Platform for Green Engineering Design and Product Sustainability

Learn More about Eco-design with G.EN.ESI

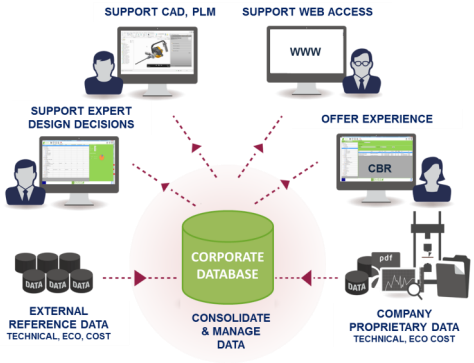
The G.EN.ESI Education Centre content provides teaching and training materials on a range of eco-design and product sustainability topics. Downloadable summaries and presentation slides gather together the many years of expertise within the G.EN.ESI team, drawing from our environmental design work in both research and industry. The documents are primarily aimed at industry however their content is applicable to anyone interested in learning more about eco-design and business. You can now download introduction to each of the following titles:

- Introduction to Lifecycle Thinking
- Introduction to Lifecycle Assessment
- Introduction to Eco-design
- Legislation and Regulation
- Eco-design Case Studies

Over the next few weeks Eco-design Strategies and Eco-design and Business will be added to these titles and expect full presentation slides in the coming months. To read or download any of the Education Centre content visit **www.genesi-fp7.eu/education-centre**

Software Development

The G.EN.ESI project is well underway, with each partner responsible for software development working closely together to create an interoperable software platform which will enable designers to integrate environmental information at the embodiment stage of design. The first versions of the tools are being tested and checked for their integration.



G.EN.ESI Research Showcase

The G.EN.ESI project is supported by a large team of researchers who's work directly and indirectly impacts the project outcomes. To disseminate the work being completed by these research teams a Research Showcase has been organised. This events takes place on the 26th of February and will include a series of 10 minute presentations documenting the research work being conducted at UNIVPM, the University of Bath and Grenoble INP.

The presentations can be viewed at **www.genesi-fp7.eu/education-centre/youtube**. Current titles include:

- Improving Eco-design Projects through Better Understanding of Company Characteristics
- A Case-Based Reasoning Approach to Support the Application of the Eco-Design Guidelines
- End-of-life Indices to Manage the De-manufacturing Phase During the Product Design Process
- Integration of eco-design activities into the design process using a methodology and an engineering platform

Latest News in Brief

→ The G.EN.ESI team is holding a workshop at DESIGN'14 in Croatia and invite you to attend. This interactive workshop will present the G.EN.ESI methodology, allowing participants to work with it, trial it and provide feedback. The workshop will also examine the importance of managing your supply chain when conducting eco-design.

→ Faber are busy getting ready for EuroCucina which takes place in Milan from the 8th-13th April. As well as presenting their full range of new products, Faber will be advertising the environmental design efforts and their involvement in the G.EN.ESI project.

→ The G.EN.ESI team will be presenting the project in the Poster Event at Industrial Technologies. The conference takes place in Athens from the 9th-11th of April and focuses on the industrialisation of research.

→ G.EN.ESI partners will be presenting research papers at Sustainable Design and Manufacturing in Cardiff, the CIRP Design Conference in April and the Design '14 Conference in Croatia in May.

This project is co-financed by the European Commission and made possible within the VII Framework Programme

Meet the Team

In each newsletter we will include a brief introduction to two members of the G.EN.ESI team; one academic and one industrial. In this instalment we introduce project leaders Marche Polytechnic University and our industrial partners Faber S.P.A.

Marche Polytechnic University

Department of Industrial Engineering and Mathematical Sciences


Michele Germani


Marco Mandolini


Marco Marconi


Alessandro Morbidoni

The G.EN.ESI project is within the Department of Industrial Engineering and Mathematical Sciences at the Università Politecnica delle Marche (UNIVPM) . The department's main research areas include computer aided systems for supporting design and manufacturing, product eco-sustainable design, tools for energy efficiency, product modularity and configuration, life cycle costing, collaborative design and, finally, advanced user interfaces and systems usability.

UNIVPM bring this varied and complimentary experience to the G.EN.ESI project, acting as project co-ordinators and primary contributors. The team are developing the Design for Energy Efficiency, Lean Design for Disassembly and Case Based Reasoning tools, which supports in-use impact reductions, end of life impact reductions and environmental design decisions respectively.

For more information please visit the 'About Us' section on the G.EN.ESI website or the departments website at:

www.diism.univpm.it

Faber SPA

On Air Since 1955


Simone Biocco


Mario Cipriani


Francesco Faginoli

Faber S.P.A have been designing and manufacturing domestic cooker hoods since 1955 and have grown to be leader in this sector, selling almost 3 million cooker hoods every year. In 2005 the company became part of the Swiss Franke Group acting as Business Unit for the range hood sector. The company develop designs under the Franke and Faber brands, as well as OEM for many other companies.

In recent years Faber have made energy efficiency a key design driver introducing LED lighting and improving motor efficiencies. Their involvement in the G.EN.ESI project is part of their ongoing development in environmentally considered design.

Within the project Faber are providing an industrial case study for the software tools and methodology. This involves the use of these outputs within the development of a new cooker hood. For more information please visit the 'About Us' section on the G.EN.ESI website or Faber's own website at:

www.faberspa.com/it/en/home

Recent Publications

The G.EN.ESI project the team have now produced 18 conference papers for 14 different conferences. The following four have been presented. Please visit the project website for a full list of publications, links to the papers :

→ **Improving Eco-Design Projects Through Better Understanding Of The Company Characteristics And Business Context.** M. Buckingham, E. Dekoninck, C. McMahon (2013). International Conference on Engineering Design (ICED13), Seoul, South Korea

→ **Web-Based Portal for Sharing Information through CAD/PLM Software during the Eco-product Development Process.** I.M. Mombeshora, E. Dekoninck (2013). Product Lifecycle Management for Society. Volume 409, 2013, pp 375.

→ **A Methodology and a Software Platform to Implement an Eco-design Strategy in a Manufacturing Company.** M. Germani, M. Dufrene, M. Mandolini, M. Marconi, P. Zwolinski (2013) ASME 2013 – IDETC/CIE Conference, Portland, Oregon.

→ **Eco-design Guidelines and Eco-knowledge Integration in Product Development Process.** M.Germani, M.Mengoni, M.Mandolini, M.Marconi, A.Morbidoni, M.Rossi (2013) International Conference on Engineering and Design (ICED), Seoul, South Korea

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