



SuPLight - Sustainable and efficient Production of Light weight solutions.



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www.suplight-eu.org



Project managements' corner

Sverre Gulbrandsen-Dahl is the new coordinator and project manager of SuPLight, Kristian Martinsen is now representing SINTEF Raufoss Manufacturing in the General Assembly.

I am happy to be on board the SuPLight project that is going into such an exciting time in 2012. The scientific work is well on its way and I am looking forward to good discussions and interesting conclusions.

Follow the project on www.suplight-eu.org

Best regards,

Sverre Gulbrandsen-Dahl, Project coordinator

Founded by the European Commission
SEVENTH FRAMEWORK PROGRAMME:
Call identifier:
FP7-NMP-2010-SMALL-4
Activity code:
NMP-2010-3.1-1: New industrial models
for a sustainable and efficient production

Another two reports delivered in SuPLight

In the *Simulation based optimization of lightweight solutions*-area the requirement, system and test specification for multi objective parameter optimization was looked into. The main objective of WP3 is to establish a framework for integrating a diverse collection of expert knowledge covering all aspects of simulation-based optimization of light-weight products, in particular products based on recycled aluminium. Industry standard solutions for integration of computer aided design (CAD), finite element analysis/methods (FEA/FEM) and computer aided manufacturing (CAM) are already used to address some aspects of light-weight products. However, when characteristics originating from large-scale life cycle analysis, environmental sustainability, industrial models and political boundary conditions are included, standard solutions for evaluating the multiple objectives have not been developed.

In the *Holistic life cycle approach*-area the Performance characteristics and data of Beginning of life-, Middle of life- and End of life phases were mapped. Aluminium scrap has a high intrinsic value. That has always been the main reason for recycling. Aluminium is not actually consumed during a lifetime, it is simply used. Therefore the lifecycle of an aluminium product is not the traditional "cradle-to-grave" sequence, but rather a renewable lifecycle from "cradle-to-cradle". These factors have contributed to the good-for-the-environment image that the material has compared to other materials. When it comes to high end aluminium the cradle-to-cradle thinking is still a faraway dream. In reality we recycle high end aluminium products, such as suspension arms and aeronautic parts into door handles or coat hangers. The results of this report show what lifecycle phases have the biggest potential for increasing the degree of sustainability, i.e. before BOL and EOL. Looking further into the possibility of making more high-end aluminium available for recycling might be the most interesting conclusion from the report.

Short notice:

Next SuPLight meeting takes place in Stuttgart in November/December 2012. The meeting will be hosted by the University of Stuttgart and will also include a workshop with the Innovation Development Group.

The SuPLight profile:



Jayson Mackie,
Representing
Gjøvik University
College, Norway

Short facts:

BSc in Computer Science (1996) and PGDipSci (similar to BSc honours) (1997) from University of Otago, New Zealand

Core competence:

Computer vision and augmented reality (AR). Especially the use of augmented reality in smart spaces and public spaces, investigating how people in an area can interact with the augmented reality world rather than using it as only a display technology which is the most common style of AR.

Main contribution in SuPLight:

Developing the Plug-in based demonstrator in WP3 and demonstrating it in WP6.