



FP7-ICT-2013-11

Photonics

LASSIE-FP7

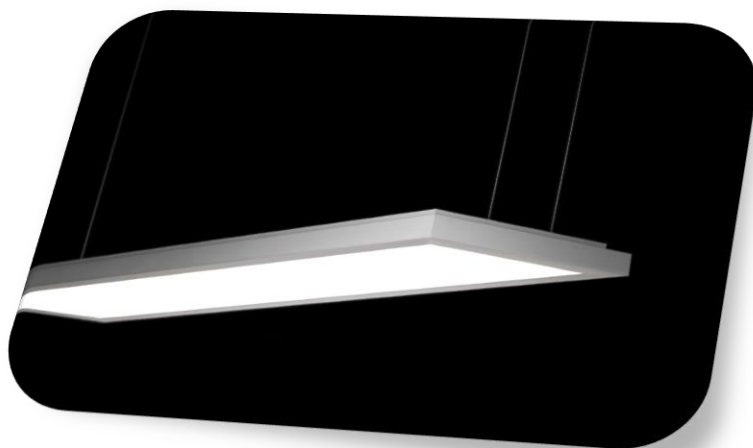
Large Area Solid State Intelligent Efficient luminaires

Starting date of the project: 01/01/2014

Duration: 36 months

= Student Design Competition =

Rules



1. Introduction

In 2009, in the effort to reduce the global energy consumption, the European Commission decided to move towards a complete ban of incandescent light sources by 2020. Their progressive replacement with highly efficient light sources is expected to reduce the energy consumption for lighting by 30%.

Among all existing technologies, solid-state lighting (SSL) represents the solution of the future. However, many SSL products do not fulfil yet the claimed specifications. The main problems are decreasing light intensity and varying light chromaticity due to aging and temperature, as well as poor uniformity of large-area luminaires and poor lighting quality.

In this context, LASSIE-FP7 (Large Area Solid State Intelligent Efficient luminaires) is a three-year collaborative project funded from the European Union's Seventh Framework Programme,¹ whose main objective is to develop innovative **large-area and low-cost intelligent SSL modules with high efficiency and high lighting quality**, while assessing their **environmental footprint**. The project targets both professional and architectural lighting as well as niche market segments, where lighting quality and intelligence offer a clear added value with respect to existing solutions.

The project intends to achieve progress beyond the state-of-the-art in terms of size, flexibility, efficiency, lighting quality and beam-shaping, lifetime, added intelligence for light out-put control, and production costs. It will do so by **integrating light-management structures and new color-changing films with heat-management solutions and multispectral sensors** for color-sensing feedback by means of an innovative **roll-to-roll** production technology compatible with flexible substrates.

In its last year, with the objective of exploring alternative and innovative ideas for applications and products, **LASSIE-FP7 launches a design competition for students**. The details for participation and the main competition rules are described in the sections below.

For more information about the project, please, check the project website: www.lassie-fp7.eu

2. Rules and instructions

Objective of the competition:

To explore alternative and innovative ideas for applications and products as well as new design concepts for either professional or architectural luminaires that integrate the LASSIE-FP7 innovative modules: LED foils with light management foils and color-changing films providing a colour tuning of the light.

Specifications:

The main specifications of the lighting modules that should be integrated in the proposed idea / design concept are:

- **Size:** 20x20cm; 15mm thickness
- **Components:** LED foils, light management film, color changing film, PCB for light tuning; housing
- **Features:** Efficacy: 100 lm/W; Luminous flux: 500 lm (for a 400 cm² module); CCT: 3'000 K; CRI: > 90; the color of the light is tuneable

Procedure:

The competition will be officially opened on **11 July 2016**.

Interested students or student teams must send their application to the LASSIE-FP7 consortium (see the contact persons below) by **31 August 2016** providing both the participant and the institution names. Moreover, they must indicate the name of a supervising teacher / researcher and, when applicable, the course, within which the participation to the competition is inserted.

¹ The project LASSIE-FP7 receives funding from the European Union Seventh Framework Programme Grant Agreement No. 619556.

A two-stage selection procedure will apply. During the first stage, individual students or student teams will elaborate a new application / product idea or an innovative luminaire design (one per student or student team) in a form of a sketch / general drawing / concept text including visualizations integrating the LASSIE-FP7 modules. The works, in pdf format, must be submitted to the LASSIE-FP7 consortium by email (see contact details below) by **15 October 2016**. The field of applications is open.

After the first stage, up to three finalists will be selected. The finalists will be contacted within **31 October 2016** and will be provided with 2 LASSIE-FP7 modules (see specifications) per individual student or student team, to realize a prototype based on the proposed idea / design concept. The prototypes must be submitted to the LASSIE-FP7 consortium (see address below) by **30 November 2016**.

All finalists will be invited to attend the Workshop on Solid State Lighting being held on **12 December 2016** in Muttenz – Basel, Switzerland, where the winner will be announced. The travel costs within Europe and accommodation of the finalists will be covered. A certificate will be issued by the jury panel to the winner.

Registration (till 31 August 2016):

Electronically to the following email address: competition@lassie-fp7.eu.

To be provided: the participant and the institution contact details (name, address, email, phone number), as well as the name of a supervising teacher / researcher and, when applicable, the course, within which the participation to the competition is inserted.

Submission (till 15 October 2016):

Electronically to the following email address: competition@lassie-fp7.eu.

The submission must be in .pdf format (size limit 15MB).

Please, make reference to the registration, and confirm the acceptance of the competition conditions.

3. Target group

Students in the field of science, art, and design are encouraged to participate.

4. Deadlines

Launch of the competition: **11 July 2016**

Registration: **31 August 2016**

1st stage submission: **15 October 2016**

➔ Selection of up to three finalists for the 2nd stage. The finalists will be contacted within **31 October 2016**.

2nd stage deadline: **30 November 2016**

➔ The selected finalists will send their functional prototypes to the following address:

To T. Dreyfus
REGENT Beleuchtungskörper AG
Dornacherstrasse 390
CH-4018 Basel
Switzerland

Announcement of the winner: **12 December 2016** at the Workshop on Solid State Lighting being held in Muttenz – Basel, Switzerland. Details on the event can be found [here](#) (please, check regularly for updates).

5. Award

The student or the student team presenting the most innovative and forward-thinking idea / design concept as well as prototype will be selected and awarded by a jury composed by representative members of the LASSIE-FP7 consortium as well as representatives of a light industry.

All finalists will be invited to attend the Workshop on Solid State Lighting being held on **12 December 2016** in Muttentz – Basel, Switzerland, where the winner will be announced. The travel costs within Europe and accommodation of the finalists will be covered. A certificate will be issued by the jury panel to the winner. The finalists' contributions will be published on the project website as well as via project partners' marketing channels.

6. Intellectual Property Rights

Ownership of copyright

The copyright of the ideas and the concepts submitted to the LASSIE-F7 Consortium within this competition is owned by the authors of the contributions.

Ownership of the physical contributions

Physical contributions (i.e. in the first stage: sketches, general drawings, concept texts including visualizations or any other physical contribution; in the second stage: prototypes) submitted to the LASSIE-FP7 Consortium within this competition are deemed to be results of the LASSIE-F7 project. As a result, the LASSIE-F7 Consortium is the owner of these physical contributions.

Publication

The LASSIE-F7 Consortium has the sole and exclusive right to disseminate the results of the project, including publication, communication or any other dissemination activity in connection with or relating to the physical contributions submitted within this competition. Each participant to the competition understands and agrees that they are not allowed to publish or otherwise disseminate information on their physical contributions without the prior written consent of the Coordinator of the LASSIE-F7 project (contact: Rolando.FERRINI@csem.ch) after Consortium partners' approval.

Applicable law and jurisdiction

The present Student Design Competition Rules are subject to the laws of Belgium, without reference to its conflict of laws principles. Any dispute arising out of this competition shall be submitted to the exclusive jurisdiction of the courts of Brussels, Belgium.

7. Contacts

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LASSIE-FP7 website: www.lassie-fp7.eu