

### Message from the Coordinator

The first half of the LEDLUM project has almost passed and the project partners can look back at a very active and development rich first project period. A lot of progress was made on the system architecture and requirements, which was constantly updated. Furthermore, intensive work on the first demonstrator was performed. Clearly, the consortium has faced some challenges and hurdles during the project execution so far, but we always found a way to handle them in a satisfying manner. Open communication and good collaboration is certainly a key success factor in such a research project.

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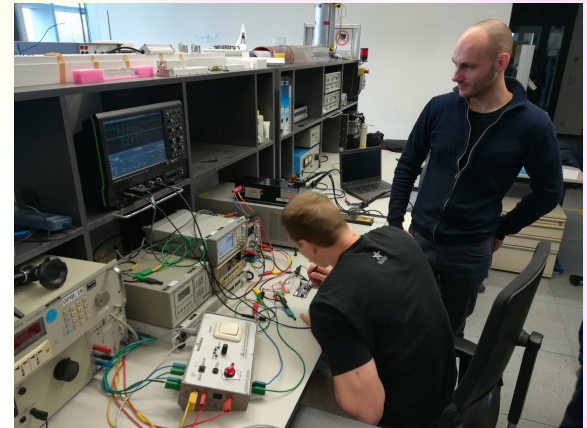
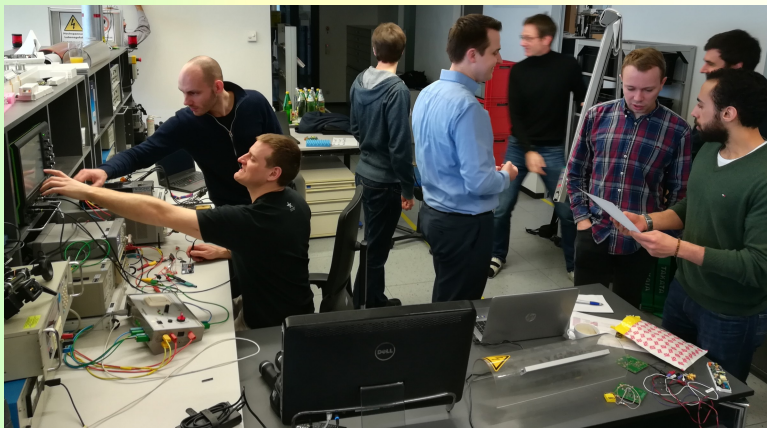
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### Lab Session at Tridonic in Dornbirn



In the morning of 7<sup>th</sup> March 2018, prior to the general consortium meeting, several partners participated in a **lab session at Tridonic**. During this session the **first physical prototypes** of DC/DC, LVPS, DALI and Control were merged to a **running system** by NPC and TRI. Besides that, DTU showed a **demonstrator for AC/DC-conversion** with high efficiency. In a next step **PFC-functionality** should be included. This was intensively discussed on the flip-chart in parallel to soldering and measuring and all project-partners from WP1-WP5 were involved.

At lunch-time and begin of the official LEDLUM technical meeting there was LiL (**Light in LED**) and closed-loop regulation allowed smooth dimming. Although size- and cost-targets are not fully met with this early demonstrator it is an ideal base for further improvements of the concept and components.



### Publications

#### Resonant Full-Bridge Synchronous Rectifier Utilizing 15 V GaN Transistors for Wireless Power Transfer Applications Following AirFuel Standard Operating at 6.78 MHz

Christopher Have Kiaerskou Jensen, Frederik Monrad Spliid, Jens Christian Hertel, Yasser Nour, Tiberiu-Gabriel Zsurzsan, Arnold Knott, IEEE APEC 2018, San Antonio, Texas, USA. March 2018.

#### Key Data:

Start Date: 1<sup>st</sup> November 2016  
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Project Reference: 731466  
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#### Consortium:

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## General Assembly, Advisory Board and Technical Meeting in Dornbirn

From 7<sup>th</sup> to 9<sup>th</sup> March 2018 the LEDLUM partners met for a **General Assembly** and **Technical Meeting**, as well as the **first Advisory Board (AB) Meeting** in Dornbirn, Austria, hosted by partner Tridonic.

On the first day several partners met in the morning for a **lab session** where the **first physical prototypes** of DC/DC, LVPS, DALI and Control were **merged to a running system**.

After lunch the official meeting started with all partners, by giving an overview of the status and the latest results **of the AC-DC and the DC-DC**. This was followed by a status update on the **System in Package (SiP)** and the integrated passives. Afterwards the status of the Driver System WP was presented and the plan for the upcoming months was discussed.

Regarding the **luminaire system**, an update on the selected luminaires was presented by LED Group. To close the first day an update of the current **system architecture** and **requirements** was given and discussions on the project target and its commercial impact took place.

The morning of the second day was dedicated to the General Assembly meeting, followed by a **poster session** where challenges for specific WPs and topics were discussed in smaller groups.

In the afternoon the first **Advisory Board** meeting took place, which was attended by two Advisory Board members. In order to provide the external experts an overview of the current technical status brief presentations on targets, results, plans and challenges of specific topics were given. This was followed by detailed discussions on capacitors, magnetic and the SiP. Another important discussion point was the luminaire system, related to questions, such as what are the key objectives of LEDLUM and which brings the most value in the market, which types of luminaire and which are most suited to get the most value out of LEDLUM. The Advisory Board members actively participated in the **discussions** and provided **valuable feedback**, which will be considered in the further project work. After a short wrap-up of the AB meeting, all partners and the AB members continued interesting discussions in a less formal atmosphere during a common dinner.

The last day was used to collect and discuss **hot topics** in focus groups, to align the further work, and to collect the action points and define responsibilities. All in all it was a very efficient meeting, which paved the way for the further way forward in the project.



## Presentation at Photonics Public Private Partnership Annual Meeting

From 8<sup>th</sup> to 9<sup>th</sup> March 2018 the Photonics Public Private Partnership Annual Meeting took place in Brussels. The LEDLUM project, which is an initiative of the Photonics Public Private Partnership, participated in this event. Mr. Toke M. Andersen from NPC gave a presentation about LEDLUM within the frame of the Workshop for Emerging Lighting, Electronics and Displays, on 9<sup>th</sup> March 2018. Further information about the event can be found [here](#). A short report is also available in the [Blog](#) on the project website.

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