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The HIPERDIAS Autumn 2018 Newsletter has arrived!

The HIPERDIAS Project began in February of 2016 and with a duration of 42 Months, will be complete in July 2019. The Project has funding from the EU under the Horizon 2020 ICT 2015 call.

Driven by the end-users requirements and needs, the main objective of the HIPERDIAS project is to demonstrate highthroughput laser-based manufacturing using high-power, high-repetition rate sub-1ps laser. Although the laser system to be developed within HIPERDIAS can address other material processing applications, the focus here will be 3D structuring of silicon at high speed, precision processing of diamond material and fine cutting of metal for the watch and the medical industry

The Project is made up of ten partners across Europe with an extensive range in expertise in high throughput laser processing. The partners include the Universitaet Stuttgart (USTUTT), Amplitude Systemes SA (AMP, Class 4 Lasers Professionals AG (C4L), Gesellschaft Fur ANgewandte Mikro und Optoelectronik mi Beschränkterhaftung GMBH (AMO), Robert Bosch GMBH (BOSCH), Universite de Limoges (XLIM), Laser Engineering Applications SA (LASEA), Glophonics (GLO), Element Six Limited (E6), Modus Research & Innovation Ltd (MODUS).

PROJECT PARTNERS

University of Stuttgart
Institut für Strahlwerkzeuge

MODUS
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In the spotlight

Exciting steps towards kilowatt-class Ultrafast laser material processing!



HIPERDIAS has taken an important step towards the goal of delivering kilowatt-class Ultra Short Pulse (USP) laser materials processing with the **installation of a 500W system at IFSW**. The IFSW laser integrates a customised Satsuma seed laser provided by AMPLITUDE SYSTEMES and is housed in a machine developed by HIPERDIAS partner LASEA SA. The system **delivers pulses of around 300fs** and will be upgraded to kilowatt levels with the integration of a new AMPLITUDE SYSTEMS 200W seed in October 2018. In the meantime, process development on the 3D ablation of silicon structures has commenced at the IFSW.

[Find out More](#)

HIPERDIAS Invited to Talk at ICALEO 2018

We are thrilled to announce that HIPERDIAS Partner, the University of Stuttgart IFSW has been invited to talk at The International Congress on Applications of Lasers & Electro-Optics (ICALEO) 2018 organised by the Laser Institute of America about the development of the HIPERDIAS Project's high power, high efficiency laser.

The talk will be given by Christoph Röcker from the IFSW, and will discuss the development the laser, which is now installed with a 500W system and can deliver pulses of around 300fs, expected to be upgraded to kilowatt levels in October 2018. The results of the Si ablation trials will also be presented.



ICALEO will be held at the Rosen Centre Hotel in Orlando, FL USA from October 14th - 18th. The conference is viewed as one of the premier sources of technical information in the field and draws international laser industry professionals from both academic and industrial settings to exchange ideas in laser materials processing, laser microprocessing and nanomanufacturing.

HIPERDIAS Fifth Consortium meeting in Bern

The HIPERDIAS Project had its fifth Consortium Meeting in Bern, Switzerland. Members of the consortium first met in Lyss and were given a tour of the C4L Facilities. The consortium then met to present the progress of each Work Package and plan for upcoming Deliverables, Milestones and Tasks within the Project.

The next Consortium Meeting will be held in Liege in October 2018.



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If you have a question about this newsletter or the HIPERDIAS Project, send an email to the HIPERDIAS Project office at hiperdias@modus.ltd.



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 PHOTONICS²¹

