

# Press release

Aachen,  
March 15, 2010

**POLY**  
**BRIGHT**

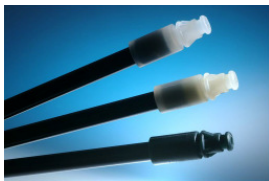


## **POLYBRIGHT - a New FP7 Project on Extending the Process Limits of Laser Polymer Welding with High-Brilliance Beam Sources**

Since last October, 18 partners from 9 countries work together in the frame of POLYBRIGHT. The aim of the project is to develop high power high brilliance lasers with new wavelengths between 1500 and 1900 nm which are adapted to the absorption properties of polymers. The EC has allocated a budget of € 6.6 mio under the contract number 228725.

The objective of PolyBright is to provide high speed and flexible laser manufacturing technology and expand the limits of current plastic part assembly. New laser polymer joining processes for optimized thermal management in combination with wavelength adapted polymers and additives will provide higher quality, high processing speed up to 1 m/s and robust manufacturing processes at lower costs. Key innovations of the PolyBright project are high powers up to 500 W, high speed scanning and flexible beam manipulation systems, such as dynamic masks and multi kHz scanning heads.

The project covers the whole process chain for laser based plastic part assembly and includes laser companies, optics suppliers, material and processing specialists as well as machine suppliers. The developed machine equipment and the new laser process approaches will be validated by end users from medical, consumer good and automotive industry.

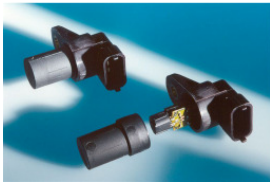


Picture 1



Picture 2

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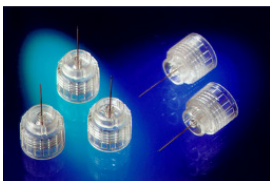
Picture 3



Picture 4



Picture 5



Picture 6

in a multi billion plastic market. PolyBright will hence establish a comprehensive and sustainable development activity on new high brilliance lasers that will strengthen the EU's laser system industry.

More information can be found under [www.polybright.eu](http://www.polybright.eu)

Captions: Laser polymer welding : a versatile process for high quality assembly in many industrial applications.

Picture 1: Fluidic parts

Picture 2: Pump housing

Picture 3: Sensor housing

Picture 4: Filters

Picture 5: Key systems

Picture 6: Medical products

Source: Fraunhofer ILT.

#### **Contacts at the Fraunhofer ILT:**

If you have any questions regarding this topic, please feel free to contact our experts:

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