

## **Imagine Optic Delivers Unique High-Power Laser Metrology & Adaptive Optics Systems for the AWE's Orion Laser Project**

Orsay France, December 15, 2008 – Imagine Optic, Europe's leading manufacturer of Shack-Hartmann wavefront metrology and adaptive optics solutions is proud to announce that it has delivered unique laser metrology and adaptive optics systems to Britain's Atomic Weapons Establishment (AWE). The two systems, designed by Imagine Optic and delivered by BFI Optilas (UK), will become an integral part of the forthcoming Orion high-power laser. Orion is set to replace the HELEN laser, which has been in operation since the 1970's, by 2010.

The metrology system is unique in that it will use 10 HASO™ 32 wavefront sensors to simultaneously measure and analyze ten long-pulse, 500J nanosecond beam lines. It will enable users to monitor beam quality using HASOv3 software and make adjustments as necessary. "Designing this system was a real challenge that everyone at Imagine Optic took on with great enthusiasm" comments Xavier Levecq, Imagine Optic's Scientific Development & Marketing VP. He continues by adding "HASO has proven itself many times in the past and we are very proud of the fact that the AWE entrusted us with this groundbreaking project."

The adaptive optics system will be used at the end of the amplification chain for wavefront correction of two powerful chirped-pulse amplification beams that will produce 500J in a 0.5 picosecond pulse. The system combines two of Imagine Optic's HASO 32 wavefront sensors and CASAO™ software with two monomorph deformable mirrors manufactured by CILAS.

"The applications of high-power lasers range from the pure science of high-energy physics to more 'down-to-earth' applications including waste treatment and, in the medical research sector, proton therapies and imaging" says Imagine Optic CEO Samuel Bucourt. "Imagine Optic will continue to work with our customers to develop wavefront metrology and adaptive optics technologies that will respond to their growing needs."

Members of the press are invited to contact Mark Zacharria at Elucido Partners by mail at [mz@elucido-partners.net](mailto:mz@elucido-partners.net) or by telephone on +33 (0)1 46 28 03 13. For more product information, please visit [www.imagine-optic.com](http://www.imagine-optic.com) or call +33 (0)1 86 64 15 60.

More about Imagine Optic

Imagine Optic is Europe's foremost provider of high-precision Shack-Hartmann wavefront sensors and adaptive optics products. The Company was founded in Orsay France in 1996 to respond to the growing need for reliable wavefront metrology, analysis and correction technologies for applications at the forefront of science and industry. Imagine Optic has maintained its position as an industry leading innovator by introducing several breakthrough products including the world's first X-EUV wavefront sensor in 2005 and, in 2008 with its sister company Imagine Eyes, the mirao™ 52-e Electromagnetic Deformable Mirror. Over the past two years, the Company has completely renewed its product line to respond to customer needs. Imagine Optic currently employs over 20 qualified professionals in a variety of fields and is represented internationally by its extensive distributor network.