ELEMENT SIX TO PRESENT THE LATEST IN DEVELOPMENT OF CHEMICAL VAPOR DEPOSITION (CVD) SYNTHETIC DIAMOND FOR ADVANCED LASER APPLICATIONS AT SPIE PHOTONICS WEST 2017

SANTA CLARA, Calif., (Jan. 25, 2017)— Element Six, the world leader in synthetic diamond supermaterials and member of The De Beers Group of Companies, will be presenting at SPIE Photonics West on Jan. 31, 2017. Alexander Muhr, senior applications engineer at Element Six Technologies, will present, "A Review of State-of-the-Art CVD Diamond: Synthesis, Processing and Scalability," sharing with attendees key progress made in the development of synthetic diamond for a variety of applications, including high power laser optics, cooling in high power disk laser and diamond Raman lasers. Photonics West is the world's largest multidisciplinary event for photonics technologies, taking place Jan. 28-Feb. 2, 2017 at The Moscone Center in San Francisco, CA.

Session Title: "A Review of State-of-the-Art CVD Diamond: Synthesis, Processing and Scalability"
Date and Time: Tuesday, Jan. 31; 3:50-4:10 p.m. PT
Location: Room 132 (North Exhibit Level)

In this session, Muhr will describe the various properties of synthetic diamond that make it an ideal material for advanced optical applications, including transparency from the ultra-violet to the infra-red, the highest thermal conductivity of any bulk material, high laser damage threshold, low thermal expansion and chemical inertness. Until recently, modest progress has been made in integrating diamond into high-performance and demanding optical systems due to limitations in size, scalability for manufacture and precision processing of polycrystalline and single crystal diamond. Element Six has led the industry in terms of progressing synthetic diamond production to overcome these challenges. Among the advancements Muhr will review in this presentation are improving low loss single crystal to enable engineers to access new wavelengths with excellent beam quality in the yellow part of the spectrum, increasing the size of low loss single crystal diamond, new processing techniques to achieve extremely smooth surfaces and applying radius of curvature to optimize beam focus and minimize scatter.

Media and analysts interested in speaking with the Element Six team at the conference to discuss the presentation further or learn more about synthetic diamond in optics and photonics applications, may contact Havas Formula at e6@formulapr.com to coordinate a meeting. Element Six is located at booth #5158 in the Photonics West exhibitor hall.

About Element Six
Element Six is a synthetic diamond supermaterials company and a member of The De Beers Group of Companies, its majority shareholder. Element Six designs, develops and produces synthetic diamond supermaterials, with major manufacturing sites in five locations in the U.S., China, Germany, South Africa and a Global Innovation Centre in Oxford, U.K.

Element Six supermaterial solutions are used in applications such as cutting, grinding, drilling, shearing and polishing, while the extreme properties of synthetic diamond beyond hardness are already opening up new applications in a wide array of industries such as optics, power transmission, water treatment, semiconductors and sensors.