

Printing in the Third Dimension: Industry Status and Future Possibilities

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Abstract

Over the last 20 years a new industry involving the layer by layer printing/growth of 3D products has evolved and a family of technologies has been invented. Collectively these technologies have developed and spread to be known as the Additive Manufacturing industry. The size of this industry is currently estimated to be ~\$1Bn per year and growing fast. Additive Manufacturing technologies are providing opportunities that have never before existed across a vast range of sectors, the consequences promise to be profound. Processes based on inkjet, lasers, digital light projection and other technologies will be

described and examples from the broad array of applications where they are being used will be shown. The talk will then focus on the technologies that are based on inkjet printing explaining why they have grown in recent years and why they are likely to be at the core of future growth of the industry. Factors such as key business drivers and overall process flexibility that have been key to the growth of the 2D inkjet printing industry will be discussed in the context of the Additive Manufacturing industry. The presentation will conclude with some indications of where inkjet could play a role in the future of this expanding industry.