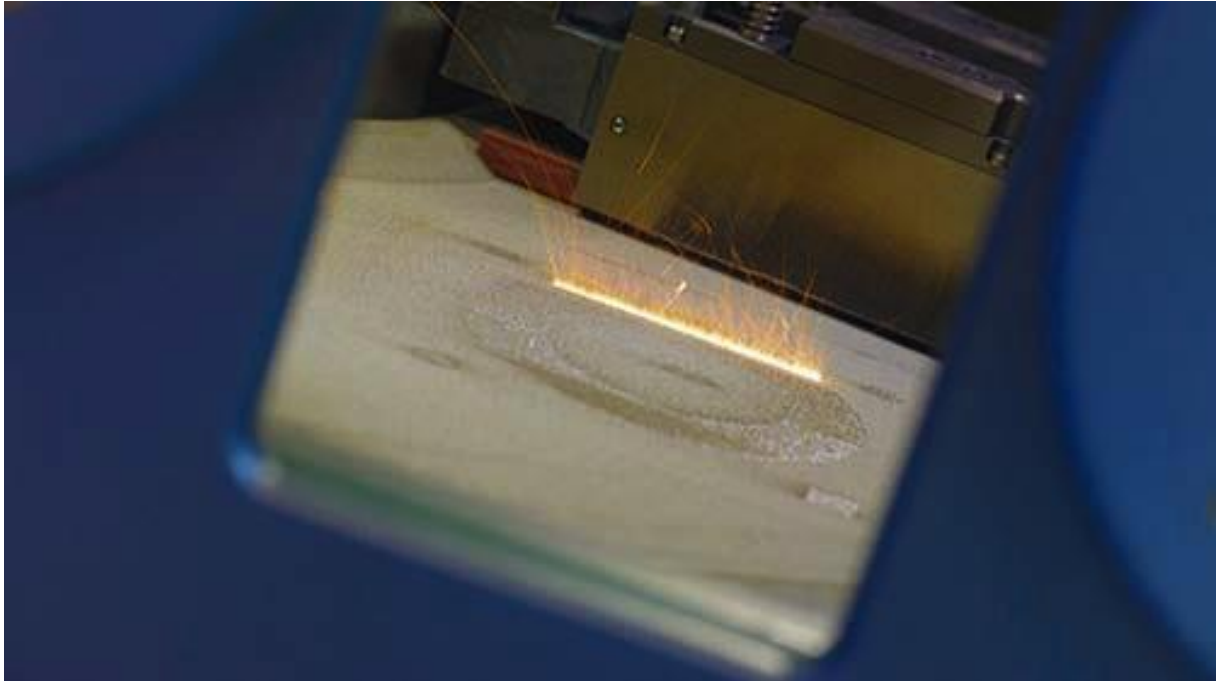


## An SMEs first steps into Additive Manufacturing



[www.ktn-uk.co.uk/news/smes-guide-to-additive-manufacturing](http://www.ktn-uk.co.uk/news/smes-guide-to-additive-manufacturing)

The concept of Additive Manufacturing (otherwise known as 3D printing), whereby components are manufactured in a series of layers, has been around for the best part of 30 years. The technology has matured to deliver final end parts to the wide variety of industries over the last 5 years or so. With large blue chip companies such as Boeing, Rolls Royce and Dyson investing into the technology and with the media hype surrounding Industry 4.0 it is not clear why there is still so much uncertainty around the technology and why there is not a wider understanding about the technology and adoption within the manufacturing world.

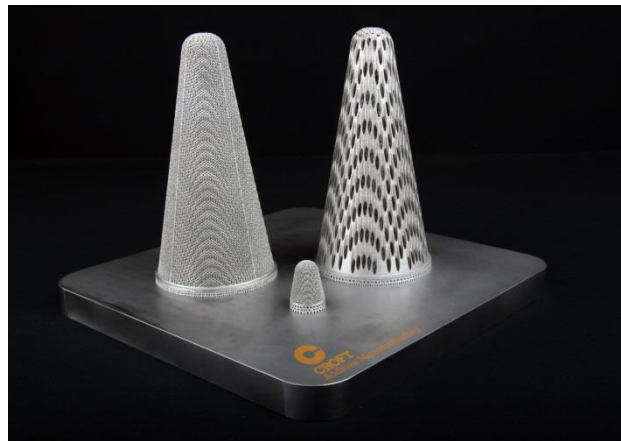
Croft Additive Manufacturing Limited, FDM Digital Solutions and the British Standards Institution have combined their knowledge, research and experience alongside Innovate UK and the Additive Manufacturing Knowledge Transfer Network (AM KTN) to create a toolbox guide to Additive Manufacturing. The guide specifically looks at 10 key questions to help Small / Medium Enterprises (SMEs) when considering 3D printing as a process for their businesses.

The guide aims to direct SMEs through the consideration process of AM rather than the actual AM manufacturing process, the guide firstly explains the 10 questions an SME should answer before adopting the AM process. The guide continues expanding into each point explaining elements not commonly known within industry and some points that are overlooked by potential AM users when considering the AM manufacturing process.

The toolbox indicates that the 10 questions to ask before adopting the AM process are as followed:

- 1. What is the volume of AM parts required?**
- 2. Have other manufacturing methods been considered?**
- 3. Has the part been designed for AM?**
- 4. Could further added value be incorporated in the design?**
- 5. Is 3D CAD data available for AM part production?**
- 6. Does the part require industry regulations or acceptance standards?**
- 7. Which material and AM processes are suitable for the part?**
- 8. What are the critical features and part specifications?**
- 9. Are further secondary processes to be carried out after build?**
- 10. Is the AM part a repeatable batch production run?**

Through answering these questions an SME should in theory understand how their utilisation of AM will deliver supply chain advantages that contribute to the Industry 4.0 ideology. The guide specifically talks about each point stressing that subtractive manufacturing does not equal Additive Manufacturing and how the factors of using the AM process should be reviewed. Designing for Additive Manufacturing (DfAM) is one of these factors. Has the design truly been optimised to take advantage of the AM process in order to add value?



The investment into AM can be large; with SMEs in particular the risks are high. The guide is a detailed starting point for those who wish to know more before deciding on which AM process they should invest into.

To download the free guide visit: [www.ktn-uk.co.uk/news/smes-guide-to-additive-manufacturing](http://www.ktn-uk.co.uk/news/smes-guide-to-additive-manufacturing)

**Croft Additive Manufacturing Limited:**

Croft Additive Manufacturing Limited (CAM) is a specialist company that provides metal additive manufactured (AM) components to a range of different industries. Based in Warrington, England, Croft offers an innovative and flexible approach to supplying Customers with AM products, and has already supplied sectors including: Bespoke Manufacturers, Food and Beverage, Chemical, Motorsport, Aerospace, and Defence sectors. Benefits of the additive process, such as part weight reduction, multi-part to single component and expanded design capabilities, allow our customers to re-think their approach to their designs in order to improve the efficiency, utility or aesthetics of their parts or to deliver other supply chain advantages. Supported by more than 30 years' experience in the engineering industry, we are able to work with customers on their specific request, ensuring that the AM technology is fully utilised.