

3D PRINTING

#8 in the Series of 'Essential Eight' Tech Mega Trends set to impact all markets in the coming years



3D PRINTING

Democratising making & transforming construction world.

3D printing creates three-dimensional objects based on digital models by layering or 'printing' successive layers of materials. 3D printing relies on innovative 'inks', including plastics, metals, and, more recently, glass and wood. 3D printing shows the potential to turn every large enterprise, small business and living room into a factory.

Research by PwC Strategy entitled Beyond Prototyping: Accelerating the Business Case for 3D Printing, predicts that the industrial market for 3D printing products and technologies will grow to ≤ 22.6 bn by 2030.

The PwC research also anticipates that aerospace (23%), medical technology (23%) and automotive (15%) are the sectors with the largest annual growth potential for 3D Printing. While 18% of manufacturing companies make use of 3D printing at present, this is expected to increase to 33% of all businesses over the next five years. And on a worldwide scale, the 3D printing market is expected to amount to almost \$50bn by 2025, estimates market-watcher Statistica.

Here are just 5 areas seeing 3D Printing making a big difference already:



3D PRINTING EARLY ADOPTION IN PROTO-TYPING & MANUFACTURING R&D

The latest edition of Sculpteo's State of 3D Printing study found that Prototyping (55%), production (43%) and proof-of-concept models (41%) were the three most popular 3D printing applications in 2018, with R&D departments being the most active adopters.

3 PRINTING FOOD

In Cambridge they've worked out how to print raspberries! It's not quite the real thing yet but who knows where we will be with food manufacture in years to come.

4 PRINTING YOUR FIRST ELECTRIC CAR

Urbee is the world's first 3D printed car which offers a revolution in Electric Vehicles at the same time.

5 DEMOCRATISING DESIGN & MANUFACTURE

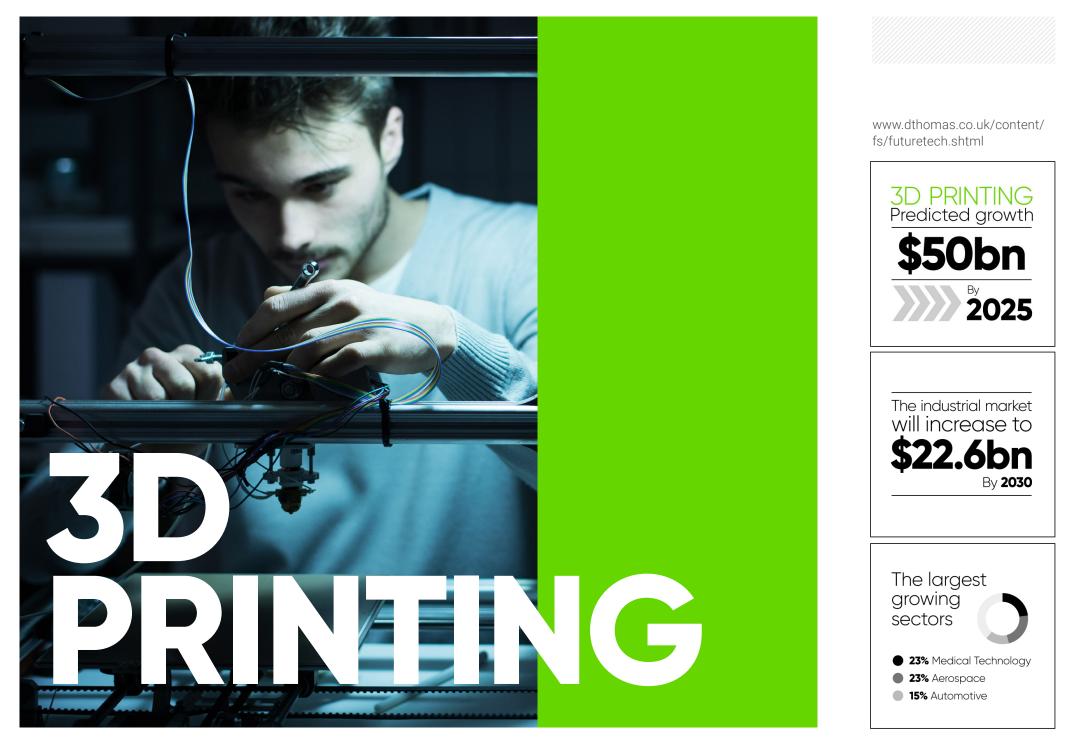
> In one example, a community of 3D Printers called eNable has focused on making up designs for prosthetic hands for children and adults who have few or no fingers. The idea is that the designs can be downloaded, adapted and printed locally for as little as \$25 per prosthetic hand.

3D printing is revolutionising the way many goods are prototyped and even manufactured, bring efficiency enhancements and driving a multimillion dollar market simultaneously. It's power to democratise design and manufacture, perhaps with the aid of crowd funding as in the case of Urbee 2, seems at once exciting and potentially disruptive for lots of manufacturing businesses.

2 3D PRINTING YOUR NEXT HOME

The technology makes it possible to build a house in a day for about \$10,000. In theory, it will be possible to build large structures through 3D printing within a few years.









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