

Additive Manufacturing & Material Market by Technology, by Material (Plastics, Metals, and Ceramics), by Application, and by Geography -Analysis & Forecast to 2014 - 2020

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Abstracts

The additive manufacturing market report analyzes the market by technology, material, application, and geography. The technology segment comprises Stereo lithography (SLA), Binder-Jetting, Poly-Jet, Laser Sintering, Electron Beam Melting (EBM), Fused Disposition Modeling (FDM), Laminated Object Manufacturing (LOM), Three Dimensional Inkjet Printing (3DP), and other proprietary technologies. The global additive manufacturing market by material comprises plastics, metals, ceramics, and others (wax, laywood, paper, and others). The application segment includes the aerospace industry, the automotive industry, consumer products, healthcare, government and defense, industrial/business machines, education & research, and others (arts, architecture, and forensics). The report also provides the geographic view for major regions- the Americas, Europe, Asia-Pacific (APAC), and Rest of the World (RoW). This report also discusses burning issues, market dynamics, and winning imperatives for the additive manufacturing market.

Additive manufacturing is employed across diverse industries. The consumer products application has the highest market size in the additive manufacturing market. Healthcare and aerospace are the two fastest growing application areas for additive manufacturing. Airplane components need to be highly precise and lightweight. Additive manufacturing helps achieve both with ease compared to traditional manufacturing methods. Increasing use of additive manufacturing for producing customized implants, surgical tools, and in the study of regenerative medicine is driving its application in healthcare.



Additive manufacturing has the largest market in the Americas. APAC and Europe are also estimated to grow at a high rate in the forecast period. Key players in the additive manufacturing market include 3D Systems, Inc. (U.S.), Stratasys Ltd. (U.S.), ExOne (U.S.), Arcam AB (Sweden), EnvisionTEC (Germany), EOS (Germany), Materialise NV (Belgium), and MCor Technologies Ltd., (Ireland) among others.

The report provides a detailed view of additive manufacturing with regards to technologies, materials, and applications markets; it also presents a detailed market segmentation, with qualitative and quantitative analysis of each and every aspect of the segmentation; done by technology, material, application, and geography. The numbers in terms of the volume and value, at every level of report, are forecast from 2014-2020.



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About

Additive manufacturing is a technology that generates 3D models/prototypes by placing layer over layer with the help of an additive material and a digital file (such as .stl). The advantages of additive manufacturing over traditional manufacturing methods (injection molding, CNC machining, and vacuum casting) such as complex designing, with lesser investment in tooling, makes it a favorable, quicker, and less expensive choice amongst different industrial manufacturers, worldwide. In the near future additive manufacturing is expected to have a huge potential market; and it will grow at an explosive growth rate, especially, in market where applications are characterized by low volume, high individualization, and high value; for instance, aerospace, and healthcare and consumer products.

The additive manufacturing materials market is driven by the simple and easy manufacturing of objects in several industrial, commercial, and residential operations. These materials also provide support to develop required objects in several industries; especially, in the aerospace and healthcare industries, their performance is unremarkable. As the need for new and advanced technologies is increasing, the requirement for materials with different levels of characteristics is also increasing. Additive manufacturing materials with high process ability, stability, and flexibility are the reason for the current revolution in additive manufacturing globally.

The major factors responsible for the demand of additive manufacturing are the development of new and improved printing technologies, rapid product development at a low cost, financial governments' funding, wide untapped application market, highly individualized products, and less time-to-market, among others.

The major applications of the additive manufacturing technology are found in consumer products, automotive, and the healthcare industry, among many others. The largest application of additive manufacturing market, that is, the consumer products application, is expected to grow at the CAGR of XX% from 2014 to 2020 from its present value of \$XX million in 2014, so as to reach \$XX million in 2020. The second largest application, that is,the automotive application, is expected to reach \$XX million in 2020 from its present value of \$XX million in 2014, at a CAGR of XX% from 2014 to 2020.

The additive manufacturing technology mainly works on two basic steps – coating and selective melting. In the coating melting process, the material is applied over the working surface as a thin layer and the thickness of the layer depends upon the type of



technology used in the manufacturing of the products. Various sources of energy such as light source, electron-beam or laser-beam, or UV/visible light are used for melting and fusion of materials in the layer. The process of melting and fusion continues till the final formation of the 3D model.

The report studies the additive manufacturing technology segment. The technologies are broadly segmented into stereolithography, polyjet, binder jetting, laser sintering, Electron Beam Melting (EBM), fused deposition method, lamination object manufacturing, Three Dimensional Printing (3DP), and others.

According to the geographic regions, the additive manufacturing market is covered by the Americas, Europe, APAC, and the Rest of the world. Among all these regions, in 2013, the Americas accounted for the largest market share of XX%, followed by Europe, with a XX% share. Europe is also expected to grow at the highest CAGR of XX% from 2014 to 2020. The enhancing capability of the manufacturing industry is driving the growth of the Europe market. The APAC region is expected to grow at the CAGR of XX% from 2014 to 2020, and accounts for XX% of the overall market share at present.

The key players in the additive manufacturing market are 3D Systems, Inc. (U.S.), Stratasys Ltd. (U.S.), ExOne (U.S.), Arcam AB (Sweden), EnvisionTEC GmbH (Germany), EOS GmbH (Germany), MakerBot industries LLC (U.S.), and Optomec Inc (U.S.), among others.



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