

Global 3D Printing Metals Market Size study, by Form (Powder, Filament), Technology (PBF, DED, Binder Jetting, Metal Extrusion), Metal Type (Titanium, Nickel, Stainless Steel, Aluminum), End-Use Industry (A&D, Automotive, Medical & Dental) and Regional Forecasts 2020-2027

https://marketpublishers.com/r/GD5C52833C3CEN.html

Date: October 2020

Pages: 200

Price: US\$ 4,950.00 (Single User License)

ID: GD5C52833C3CEN

# **Abstracts**

Global 3D Printing Metals Market is valued approximately USD 0.77 billion in 2019 and is anticipated to grow with a healthy growth rate of more than 32.5 % over the forecast period 2020-2027. 3D metal printing is also known as the processing of metal additives. This is a manufacturing technology which is used to manufacture complex structures and smaller designs. The introduction of 3D metal printing has helped manufacturers to easily design and develop complex structures that would not have been possible without conventional production techniques being used such as covering the conducting lead grid with a paste formed from a mixture of powdered lead and lead oxide, additives and sufficient quantities of acid and water to achieve the necessary density, followed by a reduction of the sulfated mixture to the porous mass of the lead. 3D metal printing is a manufacturing technique in which manufacturing is carried out layer by layer and, thus, production precision is often improved to a higher degree. Most generally, this method needs only metal powder that can be used as per the manufacturers' specifications to produce different parts and components. Special machines that are capable of creating such complex structures are available. They must, however, be run under human supervision. The use of powder metals to make goods has made it possible for manufacturers to use many kinds of metals and their alloys. The permutation and combination of many metals has thus made it possible for factories to manufacture goods that are more durable, economical and suitable for different industrial and commercial applications. The market is driven by mass customization of products with



complex design and structure, low manufacturing costs, reduction in lead times, reduction in waste generation during production, growing demand from the aerospace & defense and automotive industries. The key players of global 3D Printing metals market have adopted various strategies to gain competitive advantage including product launch, mergers and acquisition, partnerships and agreements, investment, funding and others. For instance, In November 2019, Renishaw plc partnered with Sandvik Additive Manufacturing to qualify for production applications with new additive manufacturing (AM) products. These products include a variety of metal powders and new compositions of alloys that can be tailored for the process and superior material properties of the laser powder bed fusion (LPBF) process. Renishaw plc has been creating new metal products for 3D printing with this partnership. Also, In February 2019, Booster, Orbex, and ArianeGroup announced their success in the development of AM process rocket engines. Relativity Space has signed an agreement with NASA in another contract to start a robotic factory using additive manufacturing. However, printer size restriction and high cost of metal could restrain the market growth.

The regional analysis of global 3D Printing Metals Market is considered for the key regions such as Asia Pacific, North America, Europe, Latin America and Rest of the World. North America is the leading/significant region across the world in terms growing demand from the aerospace & defense and automotive industries. Whereas, Asia-Pacific is also anticipated to exhibit highest growth rate / CAGR over the forecast period 2020-2027. Factors such Mass customization of products with complex design and structure, low manufacturing costs, reduction in lead times, reduction in waste generation during production would create lucrative growth prospects for the 3D Printing Metals Market across Asia-Pacific region.

Major market player included in this report are:

3D Systems Corporation

Renishaw PLC

Stratasys LTD.

General Electric Company

Carpenter Technology Corporation

Materialise NV

Voxeljet AG

Sandvik AB

**EOS GmbH Electro Optical Systems** 

The ExOne Company

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values to the coming eight years. The report is



designed to incorporate both qualitative and quantitative aspects of the industry within each of the regions and countries involved in the study. Furthermore, the report also caters the detailed information about the crucial aspects such as driving factors & challenges which will define the future growth of the market. Additionally, the report shall also incorporate available opportunities in micro markets for stakeholders to invest along with the detailed analysis of competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

By Technology:

Powder Bed Fusion

**Directed Energy Deposition** 

Binder Jetting

Metal Extrusion

Others (Digital Light Projector, Multi-jet Fusion, and Material Jetting)

By Form:

Powder

Filament

By Metal Type:

Titanium

Nickel

Stainless Steel

Aluminum

Others (Cobalt-chrome, Copper, Silver, Gold, and Bronze)

By End user:

Aerospace & Defense

Automotive

Medical & Dental

Others (Marine, Art & Sculpture, Jewelry, and Architecture)

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE



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China

India

Japan

Australia

South Korea

**RoAPAC** 

Latin America

Brazil

Mexico

Rest of the World

Furthermore, years considered for the study are as follows:

Historical year – 2017, 2018

Base year - 2019

Forecast period – 2020 to 2027

Target Audience of the Global 3D Printing Metals Market in Market Study:

Key Consulting Companies & Advisors
Large, medium-sized, and small enterprises
Venture capitalists
Value-Added Resellers (VARs)
Third-party knowledge providers
Investment bankers
Investors



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