

# **Global 4D Printing Market Size study, by Material (Programmable Carbon Fibre, Programmable Wood-Custom Printed Wood Grain, Programmable Textile), by End User (Aerospace Industry, Automotive Industry, Clothing, Construction, Military and Defense, Healthcare Industry, Utility) and Regional Forecasts 2021-2027**

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## **Abstracts**

Global 4D Printing Market is valued at approximately USD 65.1 million in 2020 and is anticipated to grow with a healthy growth rate of more than 42.00 % over the forecast period 2021-2027. 4D Printing is based on 3D printing technology but requires additional stimulus and stimulus-responsive materials, which is based on certain interaction mechanisms between the stimulus and smart materials, as well as appropriate design of multi-material structures from mathematical modeling. The need for Sustainable Environment, need for Reduction in Manufacturing & Process Cost, has led to the adoption of 4D Printing across the forecast period. For Instance: as per the sustainability Management School, with rapid population growth and urbanization, annual waste generation is expected to increase by 70% from 2018 levels to 3.40 billion tonnes in 2050 which can be make eco-friendly by adopting new technology like 4d printing . Also, due to the potential for innovation and product development, the adoption & demand for 4D Printing is likely to increase the market growth during the forecast period. However, complexity in Intellectual Property Rights impedes the growth of the market over the forecast period of 2021-2027.

The key regions considered for the global 4D Printing market study includes Asia Pacific, North America, Europe, Latin America and Rest of the World. Europe is the significant region across the world in terms of market share owing to the government

initiatives like emission of greenhouse gas for sustainable environment. Whereas, Asia-Pacific is also anticipated to exhibit the highest growth rate over the forecast period 2021-2027. Factors such as rising disposable income, rising population and urbanization would create profitable growth prospects for the 4D Printing market across Asia-Pacific region.

Major market player included in this report are:

3D Systems Corporation

Autodesk Inc.

Hewlett Packard Corp.

Stratasys Ltd.

Exone Co.

Organovo Holdings Inc.

ARC Centre of Excellence for Electromaterials Science (ACES)

Massachusetts Institute of Technology

Materialise NV

Dassault Syst?mesSA

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 Material:

Programmable Carbon Fibre

Programmable Wood-Custom Printed Wood Grain

Programmable Textile

By End Use:

Corporate-Owned 4D Printing

Physician-Owned 4D Printing

Hospital-Owned 4D Printing

Other 4D Printing

By End User:

Aerospace Industry

Automotive Industry

Clothing

Construction  
Military and Defense  
Healthcare Industry  
Utility

By Region:

North America  
U.S.  
Canada  
Europe  
UK  
Germany  
France  
Spain  
Italy  
ROE

Asia Pacific

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 – 2018, 2019

Base year – 2020

Forecast period – 2021 to 2027

Target Audience of the Global 4D Printing 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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