

3D Printing in Medical and Dental Markets: An Opportunity Analysis and Ten-Year Forecast

<https://marketpublishers.com/r/3B0F20E7B31EN.html>

Date: December 2013

Pages: 0

Price: US\$ 3,495.00 (Single User License)

ID: 3B0F20E7B31EN

Abstracts

3D printing has already found substantial traction in the dental implant and hearing aid business and SmarTech believes that the prospects for many other uses of 3D printing in the medical/dental market are rosy. There are numerous applications in the healthcare field where highly customized products, such as implants, must be created quickly. 3D printing fits such needs extremely well and we believe that medical/dental will become a big money spinner for the 3D printing sector in the near future. In this report SmarTech identifies the main opportunities for 3D printing in the medical and dental environments. It surveys the current use of 3D printers in this area and shows where the business opportunities will be found in the future. It also identifies current weaknesses in 3D printing and where 3D printers, software and services must adapt to make money from these opportunities. In addition to the 3D printers themselves, the report covers and forecasts the demand for related 3D printing services, scanners, software and materials. The report also includes ten-year forecasts of all the important medical- and dental-related markets for 3D printing with breakouts by type of printers (professional and prosumer), 3D scanners used, as well as related software and services. While, 3D printing of medical and dental products may use conventional 3D printing materials for some applications, such as model building, specialized ceramic, metal and even biological materials will also be required. With this in mind, we have also included a forecast of materials used by medical/dental community for 3D printing applications. In addition, the report provides a discussion of how the 3D printed medical/dental markets break out by geography, reflecting the many differences in healthcare arrangements around the world. The report concludes with an assessment of the medical related strategies of 15 leading 3D printer firms that have made medical/dental markets a critical part of their product offerings and market direction. SmarTech believes that this report will provide invaluable guidance for 3D printing equipment and software companies, service providers, specialty chemical firms and

medical equipment firms. We also think that it will prove to be required reading for investors in the 3D printing business as a whole. -

Contents

CHAPTER ONE: THE BUSINESS CASE FOR 3D PRINTING IN THE MEDICAL AND DENTAL SECTORS

- 1.1 Progress In Medical/ Dental Sectors Rests In Rapid Advancement of 3D Printing Technology
- 1.2 Importance of Customization for Medical and Dental Products
- 1.3 The Role of “Prosumer” 3D Printers In Medical/Dental Markets
- 1.4 Specialized 3D Printing Services Required for Medical/Dental Markets
- 1.5 Opportunities for 3D Scanners and Scanning Equipment
 - 1.5.1 Dental Model Scanners
 - 1.5.2 Intra-Oral Scanners
 - 1.5.3 The Role of Medical Imaging In 3D-Printed Medical/Dental Markets
- 1.6 Opportunities to Supply Materials Into the 3D-Printed Medical/Dental Market
- 1.7 Opportunities In Medical/Dental Software
- 1.8 Assessment for 3D Printing In Medical/Dental Markets by Geography
- 1.9 Summary of Ten-Year Forecasts for 3D Printed Medical and Dental Markets

CHAPTER TWO: MEDICAL AND DENTAL MARKETS FOR 3D PRINTING

- 2.1 Medical and Dental Modeling
 - 2.1.1 Understanding the Role Medical Models Have Played In the Industry
 - 2.1.2 3D Printing is Re-Inventing the Medical Model Product Category
 - 2.1.3 Medical Models Ultimate Value will be Determined by Health Insurance Providers and Government Agencies
 - 2.1.4 Isolating Real Opportunities In Medical Modeling
 - 2.1.5 Dental Modeling
 - 2.1.6 Ten-Year Forecast of 3D Printing For Medical/Dental Modeling
- 2.2 Orthopedic Implants
 - 2.2.1 Different Materials Used and Strategic Implications Moving Forward
 - 2.2.2 Adoption Is Driven by Applications that Offer Superior Performance and/or Lower Cost
 - 2.2.3 Craniomaxillofacial Implants
 - 2.2.4 Acetabular Cup Implants
 - 2.2.5 Other Orthopedic Implants
 - 2.2.6 Ten-Year Forecast of 3D Printed Implants
- 2.3 Medical Prosthetics
 - 2.3.1 Hearing Aids

2.3.2 Prosthetic Fairings

2.3.3 Ten-Year Forecasts of 3D Printed Prosthetics

2.4 Medical Instruments

2.4.1 Surgical Cutting Guides, Drill Guides, and Bespoke Tools

2.4.2 Production of Medical Equipment Prototypes and Finished Products

2.4.3 Ten-Year Forecasts of 3D Printed Medical Instruments

2.5 Bio-Medical Scaffold Systems

2.5.1 Ten-Year Forecasts of 3D Printed Bio-Medical Funding

CHAPTER THREE: DENTAL MARKETS FOR 3D PRINTING

3.1 Dental Implants

3.1.1 Crowns and Bridges

3.1.2 Screws and Abutments

3.1.3 Temporaries

3.1.4 3D Printing will Outdo CNC Milling In the Long Run

3.2 Dentures

3.2.1 Partial Dentures

3.2.2 Full Dentures

3.2.3 3D Printing for Lost Wax Investments

3.3 Ten-Year Forecasts of 3D Printed Dental Products

CHAPTER FOUR: KEY FIRMS TO WATCH FOR 3D PRINTING IN THE MEDICAL AND DENTAL MARKETS

4.1 3D Systems

4.2 Arcam

4.3 Concept Laser

4.4 DWS

4.5 EnvisionTEC

4.6 EOS

4.7 Innovation MediTech

4.8 Materialise

4.9 Optomec

4.10 Rapid Shape

4.11 Renishaw

4.12 SLM Solutions

4.13 Solidscape

4.14 Stratasys Ltd.

CHAPTER FIVE: SUMMARY OF TEN-YEAR FORECASTS

5.1 Ten-Year Forecasts of 3D Printers Installed and Shipped In the Medical/Dental Sector

5.2 Ten-year Forecasts of 3D Printing Software Expended Annually by the Medical/Dental Sector

5.3 Ten-year Forecasts of 3D Printing Scanners Installed And Shipped Annually To The Medical/Dental Sector

5.4 Ten-year Forecasts of 3D Printing Materials Consumed Annually By The Medical/Dental Sector

About SmarTech Markets Publishing

About the Analyst

List Of Exhibits

LIST OF EXHIBITS

- Exhibit 1-1: Ten-Year Forecasts for Equipment, Materials, Software, Scanners
- Exhibit 1-2: Ten-Year Forecasts for the Value of Medical Applications
- Exhibit 1-3: Ten-Year Forecasts for the Value of Dental Applications
- Exhibit 1-4: Markets Summary
- Exhibit 2-1: Opportunities in 3D Printed Medical Models
- Exhibit 2-2: Ten-Year Forecasts for the 3D Printed Medical Model Market
- Exhibit 2-3: Ten-Year Forecasts for the 3D Printed Dental Model Market
- Exhibit 2-4: Beneficial Traits of 3D-Printed Orthopedic Implants
- Exhibit 2-5: Advantages of PEKK Over Titanium
- Exhibit 2-6: Other Orthopedic Implants Being Explored By 3D Printing
- Exhibit 2-7: Ten-Year Forecasts for the 3D Printed Hip Implant Market
- Exhibit 2-8: Ten-Year Forecasts for the 3D Printed Cranial/Facial Implant Market
- Exhibit 2-9: Ten-Year Forecasts for the 3D Printed "Other" Implant Market
- Exhibit 2-10: Factors Limiting New Revenue Opportunities in Hearing Aids
- Exhibit 2-11: Benefits 3D Printing Can Bring To The Prosthetics Market
- Exhibit 2-12: Ten-Year Forecasts for the 3D Printed Hearing Aid Shell Market
- Exhibit 2-13: Ten-Year Forecasts for the 3D Printed Orthopedic Prosthetic Market
- Exhibit 2-14: Ten-Year Forecasts for 3D Printed Surgical Cutting Guides and Bespoke Tools Market
- Exhibit 2-15: Ten-Year Forecasts for the 3D Printed Medical Hardware (Prototypes and Finished Parts) Market
- Exhibit 2-16: Ten-Year Forecasts for the 3D Printed Bio-Medical Market
- Exhibit 3-1: Benefits of 3D Printing Temporaries Over CNC Milling
- Exhibit 3-2: Benefits of Producing Wax Printers
- Exhibit 3-3: Ten-Year Forecasts for the 3D Printed Dental Product Market
- Exhibit 5-1: 10 Year Forecasts For Metal Dental Printers
- Exhibit 5-2: 10 Year Forecasts For Plastic Dental Printers
- Exhibit 5-3: Ten-Year Forecasts for Metal Medical Printers
- Exhibit 5-4: Ten-Year Forecasts for Plastic Medical Printers
- Exhibit 5-5: Printer Summary
- Exhibit 5-6: Ten-Year Forecasts for Dental Software
- Exhibit 5-7: Ten-Year Forecasts for Medical Software
- Exhibit 5-8: 3D Printing Software Summary
- Exhibit 5-9: Ten-Year Forecasts for Dental Scanners
- Exhibit 5-10: Ten- Year Forecasts for Medical Scanners

Exhibit 5-11: Ten-Year Forecast Summary of 3D Scanners Used In Medical and Dental 3D Printing

Exhibit 5-12: Ten-Year Forecasts for Dental Materials Used In 3D Printing

Exhibit 5-13: Ten-Year Forecasts for Medical Material for 3D Printing– Total Demand

Exhibit 5-14: Ten-Year Forecasts for Plastic Medical Materials for 3D Printing

Exhibit 5-15: Ten-Year Forecasts for Metal Medical Materials for 3D Printing

I would like to order

Product name: 3D Printing in Medical and Dental Markets: An Opportunity Analysis and Ten-Year Forecast

Product link: <https://marketpublishers.com/r/3B0F20E7B31EN.html>

Price: US\$ 3,495.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/3B0F20E7B31EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970

