

Global Treatment Planning Systems and Advanced Image Processing Market Size study, by Component (Advanced Image Processing Software, Treatment Planning Software) by Technique (3D Image Reconstruction, In-Room Imaging, Image Registration using Graphics Processor Unit) by Application (Adaptive Radiotherapy, Online Monitoring, Tracking, Dose Accumulation, Validation of Image Registration) and Regional Forecasts 2022-2028

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Abstracts

Global Treatment Planning Systems and Advanced Image Processing Market is valued approximately USD 1.7 billion in 2021 and is anticipated to grow with a healthy growth rate of more than 8.3 % over the forecast period 2022-2028. A Treatment Planning System (TPS) is a computer programme that determines the best beam arrangements, energies, field widths, and fluence pattern to generate a safe and effective dosage distribution. The rapidly growing cancer mortality rate at both the regional and global levels is raising the demand for sophisticated and new treatment approaches. According to 2020 Globocan projections, around 10.0 million cancer-related fatalities and approximately 19.3 million new cancer cases were identified globally. Breast cancer is the most frequent kind of cancer, accounting for around 11.7 percent of all cancers, followed by lung cancer (11.4 percent), colorectal cancer (10.0 percent), prostate cancer (7.3 percent), and stomach cancer (5.6 percent). Furthermore, the rising prevalence of cancer, along with the need for appropriate treatment plans to improve clinical outcomes, is expected to boost the expansion of the market for treatment planning systems and advanced image processing. According to GLOBOCAN figures, the worldwide burden of cancer is expected to exceed 28.4 million new cases by 2040,

a 47.0 percent increase from 2020. Furthermore, various government initiatives to build contemporary healthcare infrastructure for cancer diagnosis employing sophisticated medical imaging technologies are expected to fuel market expansion in the coming years. Elekta, for example, won Mexican government tender permission in April 2018 to supply modern radiation treatment equipment and complex software to Mexico's largest public health care provider, Instituto Mexicano del Seguro Social (IMSS). However, the high cost of infrastructure stifles market growth over the projection period of 2022-2028. The evolving healthcare IT infrastructure, as well as the increasing implementation of Machine Learning (ML) and Artificial Intelligence (AI) for cancer treatment methods, are also driving market expansion.

The key regions considered for the Global Treatment Planning Systems and Advanced Image Processing Market study includes Asia Pacific, North America, Europe, Latin America, and Rest of the World. North America dominates the market. . This region's contribution is due to the growing healthcare IT infrastructure and the quick adoption of sophisticated image processing and treatment planning technologies. Furthermore, the availability of advanced cancer research facilities, together with enhanced healthcare infrastructure, is a key driver of the market in this area. Asia Pacific gained a significant revenue share and is expected to expand at the quickest CAGR. This can be attributable to the widespread use of healthcare IT systems and continuous developments in healthcare in many developing economies such as India and China. Furthermore, rising cancer prevalence and rising healthcare spending by both private and public actors are driving market expansion.

Major market player included in this report are:

Accuray Incorporated

Elekta

Philips Healthcare

RaySearch Laboratories

Varian Medical Systems

Brainlab

Prowess Inc.

DOSIsoft SA

ViewRay Inc.

MIM Software Inc.

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 Component:

Advanced Image Processing Software

Treatment Planning Software

By Technique:

3D Image Reconstruction

In-Room Imaging

Image Registration using Graphics Processor Unit

By Application:

Adaptive Radiotherapy

Online Monitoring

Tracking

Dose Accumulation

Validation of Image Registration

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, 2020

Base year – 2021

Forecast period – 2022 to 2028

Target Audience of the Global Treatment Planning Systems And Advanced Image Processing 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

Contents

CHAPTER 1. EXECUTIVE SUMMARY

- 1.1. Market Snapshot
- 1.2. Global & Segmental Market Estimates & Forecasts, 2020-2028 (USD Billion)
 - 1.2.1. Treatment Planning Systems and Advanced Image Processing Market, by Region, 2020-2028 (USD Billion)
 - 1.2.2. Treatment Planning Systems and Advanced Image Processing Market, by Component, 2020-2028 (USD Billion)
 - 1.2.3. Treatment Planning Systems and Advanced Image Processing Market, by Technique, 2020-2028 (USD Billion)
 - 1.2.4. Treatment Planning Systems and Advanced Image Processing Market, by Application, 2020-2028 (USD Billion)
- 1.3. Key Trends
- 1.4. Estimation Methodology
- 1.5. Research Assumption

CHAPTER 2. GLOBAL TREATMENT PLANNING SYSTEMS AND ADVANCED IMAGE PROCESSING MARKET DEFINITION AND SCOPE

- 2.1. Objective of the Study
- 2.2. Market Definition & Scope
 - 2.2.1. Scope of the Study
 - 2.2.2. Industry Evolution
- 2.3. Years Considered for the Study
- 2.4. Currency Conversion Rates

CHAPTER 3. GLOBAL TREATMENT PLANNING SYSTEMS AND ADVANCED IMAGE PROCESSING MARKET DYNAMICS

- 3.1. Treatment Planning Systems and Advanced Image Processing Market Impact Analysis (2020-2028)
 - 3.1.1. Market Drivers
 - 3.1.1.1. Rising cases of Cancer across the globe
 - 3.1.1.2. Government initiatives to develop modern healthcare infrastructure for the oncology diagnosis
 - 3.1.2. Market Challenges
 - 3.1.2.1. High cost of infrastructure

3.1.3. Market Opportunities

3.1.3.1. Technological improvements in Image processing devices

3.1.3.2. Growing number of oncology radiotherapy facilities

CHAPTER 4. GLOBAL TREATMENT PLANNING SYSTEMS AND ADVANCED IMAGE PROCESSING MARKET INDUSTRY ANALYSIS

4.1. Porter's 5 Force Model

4.1.1. Bargaining Power of Suppliers

4.1.2. Bargaining Power of Buyers

4.1.3. Threat of New Entrants

4.1.4. Threat of Substitutes

4.1.5. Competitive Rivalry

4.1.6. Futuristic Approach to Porter's 5 Force Model (2018-2028)

4.2. PEST Analysis

4.2.1. Political

4.2.2. Economical

4.2.3. Social

4.2.4. Technological

4.3. Investment Adoption Model

4.4. Analyst Recommendation & Conclusion

4.5. Top investment opportunity

4.6. Top winning strategies

CHAPTER 5. RISK ASSESSMENT: COVID-19 IMPACT

5.1.1. Assessment of the overall impact of COVID-19 on the industry

5.1.2. Pre COVID-19 and post COVID-19 Market scenario

CHAPTER 6. GLOBAL TREATMENT PLANNING SYSTEMS AND ADVANCED IMAGE PROCESSING MARKET, BY COMPONENT

6.1. Market Snapshot

6.2. Global Treatment Planning Systems and Advanced Image Processing Market by Component, Performance - Potential Analysis

6.3. Global Treatment Planning Systems and Advanced Image Processing Market Estimates & Forecasts by Component 2018-2028 (USD Billion)

6.4. Treatment Planning Systems and Advanced Image Processing Market, Sub Segment Analysis

6.4.1. Advanced Image Processing Software

6.4.2. Treatment Planning Software

CHAPTER 7. GLOBAL TREATMENT PLANNING SYSTEMS AND ADVANCED IMAGE PROCESSING MARKET, BY TECHNIQUE

7.1. Market Snapshot

7.2. Global Treatment Planning Systems and Advanced Image Processing Market by Technique, Performance - Potential Analysis

7.3. Global Treatment Planning Systems and Advanced Image Processing Market Estimates & Forecasts by Technique 2018-2028 (USD Billion)

7.4. Treatment Planning Systems and Advanced Image Processing Market, Sub Segment Analysis

7.4.1. 3D Image Reconstruction

7.4.2. In-Room Imaging

7.4.3. Image Registration using Graphics Processor Unit

CHAPTER 8. GLOBAL TREATMENT PLANNING SYSTEMS AND ADVANCED IMAGE PROCESSING MARKET, BY APPLICATION

8.1. Market Snapshot

8.2. Global Treatment Planning Systems and Advanced Image Processing Market by Application, Performance - Potential Analysis

8.3. Global Treatment Planning Systems and Advanced Image Processing Market Estimates & Forecasts by Application 2018-2028 (USD Billion)

8.4. Treatment Planning Systems and Advanced Image Processing Market, Sub Segment Analysis

8.4.1. Adaptive Radiotherapy

8.4.2. Online Monitoring

8.4.3. Tracking

8.4.4. Dose Accumulation

8.4.5. Validation of Image Registration

CHAPTER 9. GLOBAL TREATMENT PLANNING SYSTEMS AND ADVANCED IMAGE PROCESSING MARKET, REGIONAL ANALYSIS

9.1. Treatment Planning Systems and Advanced Image Processing Market, Regional Market Snapshot

9.2. North America Treatment Planning Systems and Advanced Image Processing

Market

9.2.1. U.S. Treatment Planning Systems and Advanced Image Processing Market

9.2.1.1. Component breakdown estimates & forecasts, 2018-2028

9.2.1.2. Technique breakdown estimates & forecasts, 2018-2028

9.2.1.3. Application breakdown estimates & forecasts, 2018-2028

9.2.2. Canada Treatment Planning Systems and Advanced Image Processing Market

9.3. Europe Treatment Planning Systems and Advanced Image Processing Market

Snapshot

9.3.1. U.K. Treatment Planning Systems and Advanced Image Processing Market

9.3.2. Germany Treatment Planning Systems and Advanced Image Processing Market

9.3.3. France Treatment Planning Systems and Advanced Image Processing Market

9.3.4. Spain Treatment Planning Systems and Advanced Image Processing Market

9.3.5. Italy Treatment Planning Systems and Advanced Image Processing Market

9.3.6. Rest of Europe Treatment Planning Systems and Advanced Image Processing

Market

9.4. Asia-Pacific Treatment Planning Systems and Advanced Image Processing Market

Snapshot

9.4.1. China Treatment Planning Systems and Advanced Image Processing Market

9.4.2. India Treatment Planning Systems and Advanced Image Processing Market

9.4.3. Japan Treatment Planning Systems and Advanced Image Processing Market

9.4.4. Australia Treatment Planning Systems and Advanced Image Processing Market

9.4.5. South Korea Treatment Planning Systems and Advanced Image Processing

Market

9.4.6. Rest of Asia Pacific Treatment Planning Systems and Advanced Image

Processing Market

9.5. Latin America Treatment Planning Systems and Advanced Image Processing

Market Snapshot

9.5.1. Brazil Treatment Planning Systems and Advanced Image Processing Market

9.5.2. Mexico Treatment Planning Systems and Advanced Image Processing Market

9.6. Rest of The World Treatment Planning Systems and Advanced Image Processing

Market

CHAPTER 10. COMPETITIVE INTELLIGENCE

10.1. Top Market Strategies

10.2. Company Profiles

10.2.1. Accuray Incorporated

10.2.1.1. Key Information

10.2.1.2. Overview

- 10.2.1.3. Financial (Subject to Data Availability)
- 10.2.1.4. Product Summary
- 10.2.1.5. Recent Developments
- 10.2.2. Elekta
- 10.2.3. Philips Healthcare
- 10.2.4. RaySearch Laboratories
- 10.2.5. Varian Medical Systems
- 10.2.6. Brainlab
- 10.2.7. Prowess Inc.
- 10.2.8. DOSIsoft SA
- 10.2.9. ViewRay Inc.
- 10.2.10. MIM Software Inc.

CHAPTER 11. RESEARCH PROCESS

- 11.1. Research Process
 - 11.1.1. Data Mining
 - 11.1.2. Analysis
 - 11.1.3. Market Estimation
 - 11.1.4. Validation
 - 11.1.5. Publishing
- 11.2. Research Attributes
- 11.3. Research Assumption

List Of Tables

LIST OF TABLES

TABLE 1. Global Treatment Planning Systems and Advanced Image Processing Market, report scope

TABLE 2. Global Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts by Region 2018-2028 (USD Billion)

TABLE 3. Global Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts by Component 2018-2028 (USD Billion)

TABLE 4. Global Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts by Technique 2018-2028 (USD Billion)

TABLE 5. Global Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts by Application 2018-2028 (USD Billion)

TABLE 6. Global Treatment Planning Systems and Advanced Image Processing Market by segment, estimates & forecasts, 2018-2028 (USD Billion)

TABLE 7. Global Treatment Planning Systems and Advanced Image Processing Market by region, estimates & forecasts, 2018-2028 (USD Billion)

TABLE 8. Global Treatment Planning Systems and Advanced Image Processing Market by segment, estimates & forecasts, 2018-2028 (USD Billion)

TABLE 9. Global Treatment Planning Systems and Advanced Image Processing Market by region, estimates & forecasts, 2018-2028 (USD Billion)

TABLE 10. Global Treatment Planning Systems and Advanced Image Processing Market by segment, estimates & forecasts, 2018-2028 (USD Billion)

TABLE 11. Global Treatment Planning Systems and Advanced Image Processing Market by region, estimates & forecasts, 2018-2028 (USD Billion)

TABLE 12. Global Treatment Planning Systems and Advanced Image Processing Market by segment, estimates & forecasts, 2018-2028 (USD Billion)

TABLE 13. Global Treatment Planning Systems and Advanced Image Processing Market by region, estimates & forecasts, 2018-2028 (USD Billion)

TABLE 14. Global Treatment Planning Systems and Advanced Image Processing Market by segment, estimates & forecasts, 2018-2028 (USD Billion)

TABLE 15. Global Treatment Planning Systems and Advanced Image Processing Market by region, estimates & forecasts, 2018-2028 (USD Billion)

TABLE 16. U.S. Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts, 2018-2028 (USD Billion)

TABLE 17. U.S. Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 18. U.S. Treatment Planning Systems and Advanced Image Processing Market

estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 19. Canada Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts, 2018-2028 (USD Billion)

TABLE 20. Canada Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 21. Canada Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 22. UK Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts, 2018-2028 (USD Billion)

TABLE 23. UK Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 24. UK Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 25. Germany Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts, 2018-2028 (USD Billion)

TABLE 26. Germany Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 27. Germany Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 28. RoE Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts, 2018-2028 (USD Billion)

TABLE 29. RoE Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 30. RoE Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 31. China Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts, 2018-2028 (USD Billion)

TABLE 32. China Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 33. China Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 34. India Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts, 2018-2028 (USD Billion)

TABLE 35. India Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 36. India Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 37. Japan Treatment Planning Systems and Advanced Image Processing Market estimates & forecasts, 2018-2028 (USD Billion)

TABLE 38. Japan Treatment Planning Systems and Advanced Image Processing
Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 39. Japan Treatment Planning Systems and Advanced Image Processing
Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 40. RoAPAC Treatment Planning Systems and Advanced Image Processing
Market estimates & forecasts, 2018-2028 (USD Billion)

TABLE 41. RoAPAC Treatment Planning Systems and Advanced Image Processing
Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 42. RoAPAC Treatment Planning Systems and Advanced Image Processing
Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 43. Brazil Treatment Planning Systems and Advanced Image Processing
Market estimates & forecasts, 2018-2028 (USD Billion)

TABLE 44. Brazil Treatment Planning Systems and Advanced Image Processing
Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 45. Brazil Treatment Planning Systems and Advanced Image Processing
Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 46. Mexico Treatment Planning Systems and Advanced Image Processing
Market estimates & forecasts, 2018-2028 (USD Billion)

TABLE 47. Mexico Treatment Planning Systems and Advanced Image Processing
Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 48. Mexico Treatment Planning Systems and Advanced Image Processing
Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 49. RoLA Treatment Planning Systems and Advanced Image Processing
Market estimates & forecasts, 2018-2028 (USD Billion)

TABLE 50. RoLA Treatment Planning Systems and Advanced Image Processing
Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 51. RoLA Treatment Planning Systems and Advanced Image Processing
Market estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 52. Row Treatment Planning Systems and Advanced Image Processing Market
estimates & forecasts, 2018-2028 (USD Billion)

TABLE 53. Row Treatment Planning Systems and Advanced Image Processing Market
estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 54. Row Treatment Planning Systems and Advanced Image Processing Market
estimates & forecasts by segment 2018-2028 (USD Billion)

TABLE 55. List of secondary sources, used in the study of global Treatment Planning
Systems and Advanced Image Processing Market

TABLE 56. List of primary sources, used in the study of global Treatment Planning
Systems and Advanced Image Processing Market

TABLE 57. Years considered for the study

TABLE 58. Exchange rates considered

List Of Figures

LIST OF FIGURES

- FIG 1. Global Treatment Planning Systems and Advanced Image Processing Market, research methodology
- FIG 2. Global Treatment Planning Systems and Advanced Image Processing Market, Market estimation techniques
- FIG 3. Global Market size estimates & forecast methods
- FIG 4. Global Treatment Planning Systems and Advanced Image Processing Market, key trends 2021
- FIG 5. Global Treatment Planning Systems and Advanced Image Processing Market, growth prospects 2022-2028
- FIG 6. Global Treatment Planning Systems and Advanced Image Processing Market, porters 5 force model
- FIG 7. Global Treatment Planning Systems and Advanced Image Processing Market, pest analysis
- FIG 8. Global Treatment Planning Systems and Advanced Image Processing Market, value chain analysis
- FIG 9. Global Treatment Planning Systems and Advanced Image Processing Market by segment, 2018 & 2028 (USD Billion)
- FIG 10. Global Treatment Planning Systems and Advanced Image Processing Market by segment, 2018 & 2028 (USD Billion)
- FIG 11. Global Treatment Planning Systems and Advanced Image Processing Market by segment, 2018 & 2028 (USD Billion)
- FIG 12. Global Treatment Planning Systems and Advanced Image Processing Market by segment, 2018 & 2028 (USD Billion)
- FIG 13. Global Treatment Planning Systems and Advanced Image Processing Market by segment, 2018 & 2028 (USD Billion)
- FIG 14. Global Treatment Planning Systems and Advanced Image Processing Market, regional snapshot 2018 & 2028
- FIG 15. North America Treatment Planning Systems and Advanced Image Processing Market 2018 & 2028 (USD Billion)
- FIG 16. Europe Treatment Planning Systems and Advanced Image Processing Market 2018 & 2028 (USD Billion)
- FIG 17. Asia pacific Treatment Planning Systems and Advanced Image Processing Market 2018 & 2028 (USD Billion)
- FIG 18. Latin America Treatment Planning Systems and Advanced Image Processing Market 2018 & 2028 (USD Billion)

FIG 19. Global Treatment Planning Systems and Advanced Image Processing Market, company Market share analysis (2021)

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