

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

<https://marketpublishers.com/r/G6FDCC97D405EN.html>

Date: June 2022

Pages: 200

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

ID: G6FDCC97D405EN

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

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