

# **Photoacoustic Imaging Market Report by Product (Imaging Systems, Components, Contrast Agents, Software, and Others), Indication (Oncology, Cardiology, Neurology, Hematology, and Others), Application (Pre-Clinical, Clinical), End Use (Hospital and Clinics, Research Institution, and Others), and Region 2024-2032**

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## **Abstracts**

The global photoacoustic imaging market size reached US\$ 96.7 Million in 2023. Looking forward, IMARC Group expects the market to reach US\$ 302.1 Million by 2032, exhibiting a growth rate (CAGR) of 13.09% during 2024-2032.

Photoacoustic imaging, also known as optoacoustic imaging, is a non-invasive biomedical imaging technique that captures images of biological tissues without using ionizing radiation. It is a hybrid modality that functions on the photoacoustic effect, wherein absorbed optical energy is converted into acoustic energy. It offers various advantages over conventional imaging techniques, including high penetration, depth, and image resolution, no harmful ionizing radiation, and molecular targeting at imaging depth. It is employed in detecting physiological properties and naturally occurring chromophores, such as lipids, melanin, hemoglobin concentration, and water and oxygen saturation. Besides this, it is extensively used for tumor mapping, functioning of the brain, detecting skin melanoma, and measuring methemoglobin. As a result, photoacoustic imaging is gaining immense traction across the globe.

Photoacoustic Imaging Market Trends:

The growing geriatric population, which is highly susceptible to various chronic medical

disorders, such as diabetes, cardiovascular, neurological, and orthopedic disorders, represents one of the prominent factors positively influencing the market. In addition, the rising prevalence of cancer, coupled with increasing research studies in the field of non-ionizing radiation for imaging, is strengthening the market growth. In line with this, the rising awareness among individuals and healthcare professionals about the early diagnosis and treatment of cancer is offering a favorable market outlook. Furthermore, the photoacoustic imaging technique finds extensive applications in preclinical studies at educational and research institutions, which is offering lucrative growth opportunities to manufacturers. Apart from this, the introduction of advanced technologies by the leading medical equipment manufacturers and research groups is driving the market. Additionally, the expansion of hospitals and laboratory centers is catalyzing the demand for imaging techniques. Moreover, increasing investments by the leading market players in extensive research and development (R&D) activities to launch novel imaging methods are propelling the market growth.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global photoacoustic imaging market report, along with forecasts at the global, regional and country level from 2024-2032. Our report has categorized the market based on product, indication, application and end use.

#### Breakup by Product:

Imaging Systems

Components

Lasers

Transducers

Contrast Agents

Software

Others

**Breakup by Indication:**

Oncology

Cardiology

Neurology

Hematology

Others

**Breakup by Application:**

Pre-Clinical

Clinical

**Breakup by End Use:**

Hospital and Clinics

Research Institution

Others

**Breakup by Region:**

North America

United States

Canada

Asia-Pacific

China

Japan

India

South Korea

Australia

Indonesia

Others

Europe

Germany

France

United Kingdom

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

## Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being Advantest Corporation, Ekspla (EKSMA group), Fujifilm Visualsonics Inc., illumiSonics Inc., InnoLas Laser GmbH, iThera Medical GmbH, kiberon GmbH, Litron Lasers Ltd., Opotek LLC, Photosound Technologies Inc., Seno Medical Instruments and Tomowave Laboratories Inc.

## Key Questions Answered in This Report:

How has the global photoacoustic imaging market performed so far and how will it perform in the coming years?

What has been the impact of COVID-19 on the global photoacoustic imaging market?

What are the key regional markets?

What is the breakup of the market based on the product?

What is the breakup of the market based on the indication?

What is the breakup of the market based on the application?

What is the breakup of the market based on the end use?

What are the various stages in the value chain of the industry?

What are the key driving factors and challenges in the industry?

What is the structure of the global photoacoustic imaging market and who are the key players?

What is the degree of competition in the industry?

## Contents

### **1 PREFACE**

### **2 SCOPE AND METHODOLOGY**

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
  - 2.3.1 Primary Sources
  - 2.3.2 Secondary Sources
- 2.4 Market Estimation
  - 2.4.1 Bottom-Up Approach
  - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

### **3 EXECUTIVE SUMMARY**

### **4 INTRODUCTION**

- 4.1 Overview
- 4.2 Key Industry Trends

### **5 GLOBAL PHOTOACOUSTIC IMAGING MARKET**

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Forecast

### **6 MARKET BREAKUP BY PRODUCT**

- 6.1 Imaging Systems
  - 6.1.1 Market Trends
  - 6.1.2 Market Forecast
- 6.2 Components
  - 6.2.1 Market Trends
  - 6.2.2 Key Segments
    - 6.2.2.1 Lasers

- 6.2.2.2 Transducers
- 6.2.3 Market Forecast
- 6.3 Contrast Agents
  - 6.3.1 Market Trends
  - 6.3.2 Market Forecast
- 6.4 Software
  - 6.4.1 Market Trends
  - 6.4.2 Market Forecast
- 6.5 Others
  - 6.5.1 Market Trends
  - 6.5.2 Market Forecast

## **7 MARKET BREAKUP BY INDICATION**

- 7.1 Oncology
  - 7.1.1 Market Trends
  - 7.1.2 Market Forecast
- 7.2 Cardiology
  - 7.2.1 Market Trends
  - 7.2.2 Market Forecast
- 7.3 Neurology
  - 7.3.1 Market Trends
  - 7.3.2 Market Forecast
- 7.4 Hematology
  - 7.4.1 Market Trends
  - 7.4.2 Market Forecast
- 7.5 Others
  - 7.5.1 Market Trends
  - 7.5.2 Market Forecast

## **8 MARKET BREAKUP BY APPLICATION**

- 8.1 Pre-Clinical
  - 8.1.1 Market Trends
  - 8.1.2 Market Forecast
- 8.2 Clinical
  - 8.2.1 Market Trends
  - 8.2.2 Market Forecast

## **9 MARKET BREAKUP BY END USE**

### 9.1 Hospital and Clinics

#### 9.1.1 Market Trends

#### 9.1.2 Market Forecast

### 9.2 Research Institution

#### 9.2.1 Market Trends

#### 9.2.2 Market Forecast

### 9.3 Others

#### 9.3.1 Market Trends

#### 9.3.2 Market Forecast

## **10 MARKET BREAKUP BY REGION**

### 10.1 North America

#### 10.1.1 United States

##### 10.1.1.1 Market Trends

##### 10.1.1.2 Market Forecast

#### 10.1.2 Canada

##### 10.1.2.1 Market Trends

##### 10.1.2.2 Market Forecast

### 10.2 Asia-Pacific

#### 10.2.1 China

##### 10.2.1.1 Market Trends

##### 10.2.1.2 Market Forecast

#### 10.2.2 Japan

##### 10.2.2.1 Market Trends

##### 10.2.2.2 Market Forecast

#### 10.2.3 India

##### 10.2.3.1 Market Trends

##### 10.2.3.2 Market Forecast

#### 10.2.4 South Korea

##### 10.2.4.1 Market Trends

##### 10.2.4.2 Market Forecast

#### 10.2.5 Australia

##### 10.2.5.1 Market Trends

##### 10.2.5.2 Market Forecast

#### 10.2.6 Indonesia

##### 10.2.6.1 Market Trends



- 10.2.6.2 Market Forecast
- 10.2.7 Others
  - 10.2.7.1 Market Trends
  - 10.2.7.2 Market Forecast
- 10.3 Europe
  - 10.3.1 Germany
    - 10.3.1.1 Market Trends
    - 10.3.1.2 Market Forecast
  - 10.3.2 France
    - 10.3.2.1 Market Trends
    - 10.3.2.2 Market Forecast
  - 10.3.3 United Kingdom
    - 10.3.3.1 Market Trends
    - 10.3.3.2 Market Forecast
  - 10.3.4 Italy
    - 10.3.4.1 Market Trends
    - 10.3.4.2 Market Forecast
  - 10.3.5 Spain
    - 10.3.5.1 Market Trends
    - 10.3.5.2 Market Forecast
  - 10.3.6 Russia
    - 10.3.6.1 Market Trends
    - 10.3.6.2 Market Forecast
  - 10.3.7 Others
    - 10.3.7.1 Market Trends
    - 10.3.7.2 Market Forecast
- 10.4 Latin America
  - 10.4.1 Brazil
    - 10.4.1.1 Market Trends
    - 10.4.1.2 Market Forecast
  - 10.4.2 Mexico
    - 10.4.2.1 Market Trends
    - 10.4.2.2 Market Forecast
  - 10.4.3 Others
    - 10.4.3.1 Market Trends
    - 10.4.3.2 Market Forecast
- 10.5 Middle East and Africa
  - 10.5.1 Market Trends
  - 10.5.2 Market Breakup by Country

### 10.5.3 Market Forecast

## **11 SWOT ANALYSIS**

- 11.1 Overview
- 11.2 Strengths
- 11.3 Weaknesses
- 11.4 Opportunities
- 11.5 Threats

## **12 VALUE CHAIN ANALYSIS**

## **13 PORTERS FIVE FORCES ANALYSIS**

- 13.1 Overview
- 13.2 Bargaining Power of Buyers
- 13.3 Bargaining Power of Suppliers
- 13.4 Degree of Competition
- 13.5 Threat of New Entrants
- 13.6 Threat of Substitutes

## **14 PRICE ANALYSIS**

## **15 COMPETITIVE LANDSCAPE**

- 15.1 Market Structure
- 15.2 Key Players
- 15.3 Profiles of Key Players
  - 15.3.1 Advantest Corporation
    - 15.3.1.1 Company Overview
    - 15.3.1.2 Product Portfolio
    - 15.3.1.3 Financials
    - 15.3.1.4 SWOT Analysis
  - 15.3.2 Ekspla (EK SMA group)
    - 15.3.2.1 Company Overview
    - 15.3.2.2 Product Portfolio
  - 15.3.3 Fujifilm Visualsonics Inc.
    - 15.3.3.1 Company Overview
    - 15.3.3.2 Product Portfolio

- 15.3.4 illumiSonics Inc.
  - 15.3.4.1 Company Overview
  - 15.3.4.2 Product Portfolio
- 15.3.5 InnoLas Laser GmbH
  - 15.3.5.1 Company Overview
  - 15.3.5.2 Product Portfolio
- 15.3.6 iThera Medical GmbH
  - 15.3.6.1 Company Overview
  - 15.3.6.2 Product Portfolio
- 15.3.7 kiber0 GmbH
  - 15.3.7.1 Company Overview
  - 15.3.7.2 Product Portfolio
- 15.3.8 Litron Lasers Ltd.
  - 15.3.8.1 Company Overview
  - 15.3.8.2 Product Portfolio
- 15.3.9 Opotek LLC
  - 15.3.9.1 Company Overview
  - 15.3.9.2 Product Portfolio
- 15.3.10 Photosound Technologies Inc.
  - 15.3.10.1 Company Overview
  - 15.3.10.2 Product Portfolio
- 15.3.11 Seno Medical Instruments
  - 15.3.11.1 Company Overview
  - 15.3.11.2 Product Portfolio
- 15.3.12 Tomowave Laboratories Inc.
  - 15.3.12.1 Company Overview
  - 15.3.12.2 Product Portfolio

## List Of Tables

### LIST OF TABLES

Table 1: Global: Photoacoustic Imaging Market: Key Industry Highlights, 2023 and 2032

Table 2: Global: Photoacoustic Imaging Market Forecast: Breakup by Product (in Million US\$), 2024-2032

Table 3: Global: Photoacoustic Imaging Market Forecast: Breakup by Indication (in Million US\$), 2024-2032

Table 4: Global: Photoacoustic Imaging Market Forecast: Breakup by Application (in Million US\$), 2024-2032

Table 5: Global: Photoacoustic Imaging Market Forecast: Breakup by End User (in Million US\$), 2024-2032

Table 6: Global: Photoacoustic Imaging Market Forecast: Breakup by Region (in Million US\$), 2024-2032

Table 7: Global: Photoacoustic Imaging Market: Competitive Structure

Table 8: Global: Photoacoustic Imaging Market: Key Players

## List Of Figures

### LIST OF FIGURES

Figure 1: Global: Photoacoustic Imaging Market: Major Drivers and Challenges

Figure 2: Global: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018-2023

Figure 3: Global: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 4: Global: Photoacoustic Imaging Market: Breakup by Product (in %), 2023

Figure 5: Global: Photoacoustic Imaging Market: Breakup by Indication (in %), 2023

Figure 6: Global: Photoacoustic Imaging Market: Breakup by Application (in %), 2023

Figure 7: Global: Photoacoustic Imaging Market: Breakup by End Use (in %), 2023

Figure 8: Global: Photoacoustic Imaging Market: Breakup by Region (in %), 2023

Figure 9: Global: Photoacoustic Imaging (Imaging Systems) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 10: Global: Photoacoustic Imaging (Imaging Systems) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 11: Global: Photoacoustic Imaging (Components) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 12: Global: Photoacoustic Imaging (Components) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 13: Global: Photoacoustic Imaging (Contrast Agents) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 14: Global: Photoacoustic Imaging (Contrast Agents) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 15: Global: Photoacoustic Imaging (Software) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 16: Global: Photoacoustic Imaging (Software) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 17: Global: Photoacoustic Imaging (Other Products) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 18: Global: Photoacoustic Imaging (Other Products) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 19: Global: Photoacoustic Imaging (Oncology) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 20: Global: Photoacoustic Imaging (Oncology) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 21: Global: Photoacoustic Imaging (Cardiology) Market: Sales Value (in Million

US\$), 2018 & 2023

Figure 22: Global: Photoacoustic Imaging (Cardiology) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 23: Global: Photoacoustic Imaging (Neurology) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 24: Global: Photoacoustic Imaging (Neurology) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 24: Global: Photoacoustic Imaging (Hematology) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 26: Global: Photoacoustic Imaging (Hematology) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 27: Global: Photoacoustic Imaging (Other Indications) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 28: Global: Photoacoustic Imaging (Other Indications) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 29: Global: Photoacoustic Imaging (Pre-Clinical) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 30: Global: Photoacoustic Imaging (Pre-Clinical) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 31: Global: Photoacoustic Imaging (Clinical) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 32: Global: Photoacoustic Imaging (Clinical) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 33: Global: Photoacoustic Imaging (Hospital and Clinics) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 34: Global: Photoacoustic Imaging (Hospital and Clinics) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 35: Global: Photoacoustic Imaging (Research Institution) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 36: Global: Photoacoustic Imaging (Research Institution) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 37: Global: Photoacoustic Imaging (Other End Users) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 38: Global: Photoacoustic Imaging (Other End Users) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 39: North America: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 40: North America: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 41: United States: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 42: United States: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 43: Canada: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 44: Canada: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 45: Asia-Pacific: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 46: Asia-Pacific: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 47: China: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 48: China: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 49: Japan: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 50: Japan: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 51: India: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 52: India: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 53: South Korea: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 54: South Korea: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 55: Australia: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 56: Australia: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 57: Indonesia: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 58: Indonesia: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 59: Others: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 60: Others: Photoacoustic Imaging Market Forecast: Sales Value (in Million

US\$), 2024-2032

Figure 61: Europe: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 62: Europe: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 63: Germany: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 64: Germany: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 65: France: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 66: France: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 67: United Kingdom: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 68: United Kingdom: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 69: Italy: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 70: Italy: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 71: Spain: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 72: Spain: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 73: Russia: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 74: Russia: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 75: Others: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 76: Others: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 77: Latin America: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 78: Latin America: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 79: Brazil: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023



Figure 80: Brazil: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 81: Mexico: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 82: Mexico: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 83: Others: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 84: Others: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 85: Middle East and Africa: Photoacoustic Imaging Market: Sales Value (in Million US\$), 2018 & 2023

Figure 86: Middle East and Africa: Photoacoustic Imaging Market: Breakup by Country (in %), 2023

Figure 87: Middle East and Africa: Photoacoustic Imaging Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 88: Global: Photoacoustic Imaging Industry: SWOT Analysis

Figure 89: Global: Photoacoustic Imaging Industry: Value Chain Analysis

Figure 90: Global: Photoacoustic Imaging Industry: Porter's Five Forces Analysis

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