

# Intraoperative Neuromonitoring (IONM) Market - Global Outlook and Forecast 2017 - 2022Intraoperative Neuromonitoring (IONM) Market - Global Outlook and Forecast 2017 - 2022

https://marketpublishers.com/r/I844AE068B0EN.html

Date: September 2017

Pages: 169

Price: US\$ 3,500.00 (Single User License)

ID: I844AE068B0EN

# **Abstracts**

SpecialtyCare, Natus, NuVasive, Medtronic, and inomed Medizintechnik GmbH are the leading players in the global intraoperative neuromonitoring (IONM) market. The global IONM market is expected to cross \$4 billion, growing at a CAGR close to 7.8% during 2016–2022. The market for IONM is relatively entrenched in developed countries, especially in the US and Europe. North America will lead the market and the US will have the maximum share (90%) of the total market share in the region. The orthopedic surgery segment is likely to post the highest growth CAGR in the application segment, whereas the neurosurgery segment will remain the largest market. The EP segment will dominate the market during the forecast period.

Report Timeline

Base Year: 2016

Forecast Year: 2017-2022

Major vendors profiled in the report are as following:

SpecialtyCare

Natus



NuVasive

Medtronic

inomed Medizintechnik GmbH

Other emerging vendors are Accurate Monitoring, Cadwell Industries, Computational Diagnostics, Bromedicon Neuromonitoring, Clinical Neurodiagnostics, CNS Neuromonitoring, Dr. Langer Medical GmbH, IntraNerve, Medsurant Health, Neuro Alert, Neurophysiology Services Asia, Nihon Kohden Corporation.

### **SCOPE OF THE REPORT**

The study considers the present scenario of the global IONM Market and its market dynamics for the period 2016?2022. It covers a detailed overview of various market growth enablers, restraints, and trends. The study covers both the demand and supply sides of the market. The report alsoprofiles and analyzes the leading five companies and 15 other prominent companies operating in the market.

The sale of major IONM market companies was aggregated to arrive at the market size. The same approach is used to calculate the market size in terms of revenue. An estimated 85?90% of vendors' capacity are mapped and considered in the calculations.

The report provides the analysis of the key segments of the market by end-users, geography, and vendors. It provides a detailed analysis of revenue from various segments:

Source Types

In-sourced

Outsourced

Methodology Types

Evoked Potential (EP)



Electromyography (EMG) Electroencephalography (EEG) **Application Types** Neurosurgery Orthopedic surgery **ENT** surgery Cardiovascular surgery Major Geographies **APAC EMEA** Latin America North America The report provides a holistic view of the global IONM market, the companies involved

The report provides a holistic view of the global IONM market, the companies involved in the market, and the factors driving its growth. It also provides information on some of the latest trends that have started to surface and are likely to become strong market driving forces over the next five years. This report also provides the Porter's Five Forces analysis along with a description of each force and its impact on the market. Further, the report also provides complete value chain analysis of the global market.

IONM Market: Key Vendor Analysis

Vendors majorly focus on merger & acquisition to strengthen their presence

The global market can be termed as attractive one because of the growth prospects it



holds. Mergers and acquisition are the major strategies used by vendors in the market. The report includes the news and details of the key mergers and acquisition of major vendors in the industry.

**IONM Market Dynamics** 

Advent of portable and multi-modality IONM devices to boost the market

Increase in volume of surgical procedures, growing utility of intraoperative neuromonitoring in varied surgeries, technological innovations and increase in use of out-sourced Intraoperative neuromonitoring by small and rural healthcare centers are the major factors that are enhancing the growth of the market. Increasing demand for tele-neuromonitoring, advent of portable and multi-modality IONM devices, increase in strategic consolidations and integration of MI surgeries with intraoperative neuromonitoring are the latest trends that will boost the market and will pave the way for growth opportunities.

IONM Market: Segmental Overview

Neurosurgery segment is going to dominate the market during the forecast period

Outsourced intraoperative neuromonitoring is growing at a rapid pace due to its benefits over in-sourced monitoring. Hospitals prefer outsourced monitoring as it eliminates the need for purchase of premium priced Intraoperative neuromonitoring capital equipment and avoid the requirement to appoint full-time IONM professionals.

In terms of modality, the EP segment dominated the market with a major share of 68.25% of the global IONM market due to its broad range of surgical applications and the high utilization rate. This segment is anticipated to be driven at a slightly growth rate during 2016?2022 and will retain to be major segment of the global Intraoperative neuromonitoring market by modality type during the forecast period. In terms of the growth rate, orthopedic surgeries are likely to grow at a higher CAGR than other surgical types. However, neurosurgery will remain the major revenue contributor during the forecast period in the application segment.

IONM Market: Geographical Analysis

IONM market in North America to be the largest market



The primary factor for the high share of North America in the global IONM market is the existence of the favorable and constantly improving reimbursement scenario in the region. The penetration of Intraoperative neuromonitoring devices is significantly higher in the US than other developed or developing countries worldwide. Their demand in this region is alsorapidly growing increased in rate of utilization of IONM for varied surgeries and due to increase in demand for out-sourced services. Europe is the second largest market, followed by APAC, Latin America, and MEA.



# **Contents**

- 1 RESEARCH METHODOLOGY
- **2 RESEARCH OBJECTIVES**
- 3 RESEARCH PROCESS
- **4 REPORT COVERAGE**
- 4.1 Market Definition
- 4.2 Base Year
- 4.3 Scope of Study
- 4.3.1 Market Segmentation by Source Type
- 4.3.2 Market Segmentation by Methodology
- 4.3.3 Market Segmentation by Application
- 4.3.4 Market Segmentation by Geography

### **5 REPORT ASSUMPTIONS & CAVEATS**

- 5.1 Currency Conversion rate
- 5.2 Market Derivation

### **6 MARKET AT A GLANCE**

### 7 INTRODUCTION

- 7.1 Overview Of Nervous System and Neurophysiology
- 7.2 Introduction to IONM
- 7.3 Evolution of IONM
- 7.4 Standard STAGES in IONM
  - 7.4.1 Pre-operative Preparation
  - 7.4.2 Baseline IONM Recording
  - 7.4.3 Perioperative IONM Recording
  - 7.4.4 IONM Documentation
  - 7.4.5 Interpretive Report Preparation
- 7.5 Key Advantages of IONM

### **8 REIMBURSEMENT SCENARIO**



- 8.1 Background
- 8.2 Reimbursement Scenario in North America
  - 8.2.1 Reimbursement Scenario in US
  - 8.2.2 Overview of IONM Reimbursement
  - 8.2.3 Outline of Coding Considerations-
- 8.3 Reimbursement Scenario in Europe
  - 8.3.1 Reimbursement Scenario in UK
  - 8.3.2 Reimbursement Scenario in France
  - 8.3.3 Reimbursement Scenario in Germany
  - 8.3.4 Reimbursement Scenario in Italy
  - 8.3.5 Reimbursement Scenario in Spain
- 8.4 Reimbursement Scenario in Latin America
  - 8.4.1 Reimbursement Scenario in Mexico
- 8.5 Reimbursement Scenario in APAC
  - 8.5.1 Reimbursement Scenario in Japan
  - 8.5.2 Reimbursement Scenario in Australia

### 9 MARKET DYNAMICS

- 9.1 Market Growth Enablers
  - 9.1.1 Increase in Volume of Surgical Procedures
  - 9.1.2 Increased Utility of IONM in Varied Surgeries
  - 9.1.3 Technological Advancements
  - 9.1.4 Increased Use of Out-sourced IONM by Small and Rural Healthcare Centers
  - 9.1.5 YOY Impact of Market Enablers
- 9.2 Market Growth Restraint
  - 9.2.1 Low Awareness and Adoption of IONM in Emerging Countries
  - 9.2.2 Limited Skilled Healthcare Professionals
  - 9.2.3 High Cost of IONM Utilized Surgeries
  - 9.2.4 Associated Complications of IONM
  - 9.2.5 YOY Impact of Market Restraints
- 9.3 Market Opportunities & Trends
  - 9.3.1 High Demand for Tele-Neuromonitoring
  - 9.3.2 Advent of Portable and Multi-modality IONM Devices
  - 9.3.3 Increase in Strategic Consolidation
  - 9.3.4 Integration of MI Surgeries with IONM
  - 9.3.5 YOY Impact of Trends and Opportunities



### 10 GLOBAL IONM MARKET

- 10.1 market Overview
- 10.2 Market Size & Forecast
- 10.3 Porter's Five Forces Analysis
  - 10.3.1 Threat of New Entrants
  - 10.3.2 Bargaining Power of Suppliers
  - 10.3.3 Bargaining Power of Buyers
  - 10.3.4 Threat of Substitutes
  - 10.3.5 Competitive Rivalry

### 11 IONM MARKET- BY SOURCE TYPE

- 11.1 Market Overview
- 11.2 In-Sourced IONM Market
- 11.3 Outsourced IONM Market

## 12 IONM MARKET- BY MODALITY

- 12.1 Segment Overview
- 12.2 Evoked Potential (EP) Market
  - 12.2.1 Market Size & Forecast
- 12.3 Detailed Description of EP Types
  - 12.3.1 Somatosensory evoked potentials (SSEP)
  - 12.3.2 Motor Evoked Potentials (MEP)
  - 12.3.3 Visual Evoked Potential (VEP)
  - 12.3.4 Brainstem Auditory Evoked Potential (BAEP)
- 12.4 Electromyography (EMG)
  - 12.4.1 Market Size & Forecast
  - 12.4.2 Free-running EMG
  - 12.4.3 Stimulated EMG
- 12.5 Electroencephalogram (EEG) Market

### 13 GLOBAL IONM MARKET - BY APPLICATION

- 13.1 Segment Overview
- 13.2 NEURAL Surgeries
  - 13.2.1 Market Size & Forecast
- 13.3 Orthopedic Surgeries



13.3.1 Market Size & Forecast

13.4 ENT Surgeries

13.4.1 Market Size & Forecast

13.5 Cardiovasular Surgeries

13.5.1 Market Size & Forecast

### 14 IONM MARKET - BY GEOGRAPHY

14.1 Market Overview

### 15 NORTH AMERICA: IONM MARKET

15.1 Market Overview

15.2 Market Size & Forecast

15.3 Leading Trends, Enablers, and Restraints

15.4 Key Countries

15.4.1 US: Market Size & Forecast

15.4.2 Canada: Market Size & Forecast

# 16 EUROPE: IONM MARKET

16.1 Market Overview

16.2 Market Size & Forecast

16.3 Leading Trends, Enablers, and Restraints

16.4 Key Countries

16.4.1 Germany: Market Size & Forecast

16.4.2 UK: Market Size & Forecast

16.4.3 France, Italy, and Spain: Market Size and Forecast

### 17 APAC: IONM MARKET

17.1 Market Overview

17.2 Market Size & Forecast

17.3 Leading Trends, Enablers, and Restraints

17.4 Key Countries

17.4.1 Japan: Market Size & Forecast

17.4.2 Australia: Market Size & Forecast

17.4.3 China and India: Market Size & Forecast



### 18 LATIN AMERICA: IONM MARKET

- 18.1 Market Overview
- 18.2 Market Size & Forecast
- 18.3 Major Trends, Enablers, and Restraints
- 18.4 Key Countries
  - 18.4.1 Mexico: Market Size & Forecast
  - 18.4.2 Brazil: Market Size & Forecast

### 19 MIDDLE EAST & AFRICA: IONM MARKET

- 19.1 Market Overview
- 19.2 Market Size & Forecast
- 19.3 Major Trends, Enablers, and Restraints

### 20 COMPETITIVE LANDSCAPE

20.1 Competition overview

### 21 KEY COMPANY PROFILES

- 21.1 SpecialtyCare
  - 21.1.1 Key Highlights
  - 21.1.2 Strength Assessment
  - 21.1.3 Strategy Assessment
  - 21.1.4 Opportunity Assessment
- 21.2 Natus Medical Incorporated
  - 21.2.1 Key Highlights
  - 21.2.2 Strength Assessment
  - 21.2.3 Strategy Assessment
  - 21.2.4 Opportunity Assessment
- 21.3 NuVasive Inc
  - 21.3.1 Key Highlights
  - 21.3.2 Strength Assessment
  - 21.3.3 Strategy Assessment
  - 21.3.4 Opportunity Assessment
- 21.4 Medtronic plc
  - 21.4.1 Key Highlights
  - 21.4.2 Strength Assessment



- 21.4.3 Strategy Assessment
- 21.4.4 Opportunity Assessment
- 21.5 inomed Medizintechnik GmbH
  - 21.5.1 Key Highlights
  - 21.5.2 Strength Assessment
  - 21.5.3 Opportunity Assessment
  - 21.5.4 Strategy Assessment

### 22 OTHER PROMINENT COMPANIES

- 22.1 Accurate Monitoring
  - 22.1.1 Strength Assessment
  - 22.1.2 Strategy Assessment
  - 22.1.3 Opportunity Assessment
- 22.2 Cadwell Industries INC.
  - 22.2.1 Strength Assessment
  - 22.2.2 Strategy Assessment
  - 22.2.3 Opportunity Assessment
- 22.3 Computational Diagnostics INC.
  - 22.3.1 Strength Assessment
  - 22.3.2 Strategy Assessment
  - 22.3.3 Opportunity Assessment
- 22.4 Bromedicon Neuromonitoring LLC
  - 22.4.1 Strength Assessment
  - 22.4.2 Strategy Assessment
  - 22.4.3 Opportunity Assessment
- 22.5 Clinical Neurodiagnostics LLC
  - 22.5.1 Strength Assessment
  - 22.5.2 Strategy Assessment
  - 22.5.3 Opportunity Assessment
- 22.6 CNS Neuromonitoring
  - 22.6.1 Strength Assessment
  - 22.6.2 Strategy Assessment
  - 22.6.3 Opportunity Assessment
- 22.7 Dr. Langer Medical
  - 22.7.1 Strength Assessment
  - 22.7.2 Strategy Assessment
  - 22.7.3 Opportunity Assessment
- 22.8 IntraNerve LLC



- 22.8.1 Strength Assessment
- 22.8.2 Strategy Assessment
- 22.8.3 Opportunity Assessment
- 22.9 Medsurant Health LLC
  - 22.9.1 Strength Assessment
  - 22.9.2 Strategy Assessment
  - 22.9.3 Opportunity Assessment
- 22.1 Neuro Alert
  - 22.10.1 Strength Assessment
  - 22.10.2 Strategy Assessment
  - 22.10.3 Opportunity Assessment
- 22.11 Neurophysiology Services Asia
  - 22.11.1 Strength Assessment
  - 22.11.2 Strategy Assessment
- 22.11.3 Opportunity Assessment
- 22.12 Nihon Kohden CORP.
  - 22.12.1 Strength Assessment
  - 22.12.2 Strategy Assessment
  - 22.12.3 Opportunity Assessment

### 23 REPORT SUMMARY

- 23.1 Key Takeaways
- 23.2 Qualitative Summary of Global IONM Market
- 23.3 Quantitative Summary of Global IONM Market

### 24 APPENDIX

24.1 List of Abbreviations



# **List Of Exhibits**

### LIST OF EXHIBITS

Exhibit 1 Se	amentation	of Glo	bal IONM	Market
--------------	------------	--------	----------	--------

Exhibit 2 Market Size Calculation Approach 2016

Exhibit 3 Schematic Representation of Neurotransmission

Exhibit 4 Mechanism of IONM

**Exhibit 5 Common IONM Modalities** 

Exhibit 6 Evolution of IONM

Exhibit 7 Standard Steps Followed in IONM

Exhibit 8 Key Advantages of IONM

Exhibit 9 Increase in Volume of Select Surgical Procedures in US (in thousands)

Exhibit 10 Increase in Number of Hospitals Utilizing IONM in US 2008 and 2012

Exhibit 11 Common Specialist Areas Utilizing IONM Techniques

Exhibit 12 Snapshot of Out-sourced IONM's Benefits Over In-sourced IONM

Exhibit 13 Global Outsourced IONM Market (\$million)

Exhibit 14 Additional Costs of IONM Utilized MIS-TLIF Surgery

Exhibit 15 Demand for Remote IONM in US

Exhibit 16 List of Key Portable and Multi-Modal IONM Devices

Exhibit 17 Overview of Global Disease Burden and Need For IONM

Exhibit 18 Global IONM Market 2016–2022 (\$ million)

Exhibit 19 Five Forces Analysis 2016

Exhibit 20 Global IONM Market by Source Type

Exhibit 21 Percentage Share of In-sourced and Out-sourced IONM 2016 and 2022

Exhibit 22 Global IONM Market by Source Type (\$ million)

Exhibit 23 Comparison of Growth Rates for Out-sourced and In-sourced IONM

Segments

Exhibit 24 Key Beneficial Aspects and Drawbacks of In-sourced IONM

Exhibit 25 Global In-sourced IONM Market Size and Forecast (\$ million)

Exhibit 26 End-users of Out-Sourced IONM Service Providers

Exhibit 27 Key Benefits of Outsourced IONM Services

Exhibit 28 Global Out-sourced IONM Market Size and Forecast (\$ million)

Exhibit 29 Global IONM Market by Modality

Exhibit 30 Percentage Share of EP, EMG, and EEG

Exhibit 31 Global IONM Market Lucrativeness by Modality

Exhibit 32 Global IONM Market by Modality (\$ million)

Exhibit 33 Comparison of Growth Rates for EP, EMG, and EEG

Exhibit 34 Types of Evoked Potentials Used as IONM Modalities



Exhibit 35 Global EP Market Size and Forecast (\$ million)

Exhibit 36 Common MEP Indicated Surgeries

Exhibit 37 Common VEP Indicated Surgeries

Exhibit 38 Common BAEP Indicated Surgeries

Exhibit 39 Snapshot of Basic EMG Techniques

Exhibit 40 Key EMG Indicated Surgeries

Exhibit 41 Global Electromyography Market Size and Forecast (\$ million)

Exhibit 42 Key EEG Indicated Surgeries

Exhibit 43 Global EEG Market Size and Forecast (\$ million)

Exhibit 44 Global IONM Market by Application

Exhibit 45 Percentage Share of Surgical Specialties 2016 and 2022

Exhibit 46 Global IONM Market Lucrativeness by Application 2022

Exhibit 47 Incidence of Brain and Nervous System Tumors (in '000)

Exhibit 48 Increase in IONM Utilization Rate for Simple Fusions and Laminectomies in US

Exhibit 49 Global IONM Market Size for Neural Surgeries (\$ million)

Exhibit 50 Hip replacements Surgical Volume in Select OECD Countries (in '000)

Exhibit 51 Global IONM Market Size for Orthopedic Surgeries (\$ million)

Exhibit 52 Incidence of Thyroid Cancer (in '000)

Exhibit 53 Global IONM Market Size for ENT Surgeries (\$ million)

Exhibit 54 Decrease in CABG Surgical Volume in Select OECD countries

Exhibit 55 Global IONM Market Size for Cardiovascular Surgeries (\$ million)

Exhibit 56 Global IONM Market by Geography

Exhibit 57 IONM Market by Geography (\$ million)

Exhibit 58 Market Revenue Growth Rates Comparison by Geography

Exhibit 59 Global IONM Market Lucrativeness by Geography 2022

Exhibit 60 IONM Market in North America by Country 2016

Exhibit 61 IONM Market in North America 2016–2022 (\$ million)

Exhibit 62 Key IONM Market Dynamics in North America

Exhibit 63 Increase in Select Surgical Procedures in US (in '000's)

Exhibit 64 IONM Market in the US 2016–2022 (\$ million)

Exhibit 65 Increase in Volume of Select Surgeries in Canada 2006–2015

Exhibit 66 IONM Market in Canada 2016–2022 (\$ million)

Exhibit 67 IONM Market in Europe by Country 2016

Exhibit 68 IONM Market in Europe (\$ million)

Exhibit 69 Key IONM Market Dynamics in Europe

Exhibit 70 Increase in Volume of Select Surgeries in Germany 2006–2015

Exhibit 71 IONM Market in Germany 2016–2022 (\$ million)

Exhibit 72 Increase in Volume of Select Surgeries in UK



Exhibit 73 IONM Market in UK (\$ million)

Exhibit 74 Increase in Volume of Total Knee Replacement in France, Italy, and Spain 2006–2015

Exhibit 75 IONM Market in France (\$ million)

Exhibit 76 IONM Market in Italy (\$ million)

Exhibit 77 IONM Market in Spain (\$ million)

Exhibit 78 IONM Market in APAC (\$ million)

Exhibit 79 Key IONM Market Dynamics in APAC

Exhibit 80 IONM Market in Japan 2016–2022 (\$ million)

Exhibit 81 IONM Market in Australia (\$ million)

Exhibit 82 IONM Market in China (\$ million)

Exhibit 83 IONM Market in India (\$ million)

Exhibit 84 IONM Market in Latin America (\$ million)

Exhibit 85 Key IONM Market Dynamics in Latin America

Exhibit 86 Increase in Common Surgical Procedures in Mexico

Exhibit 87 IONM Market in Mexico (\$ million)

Exhibit 88 IONM Market in Brazil (\$ million)

Exhibit 89 IONM Market in MEA 2016–2022 (\$ million)

Exhibit 90 Key IONM Market Dynamics in Latin America

Exhibit 91 Snapshot of IONM Competitive Scenario



# **List Of Tables**

### LIST OF TABLES

Table 1 k	Key Geog	raphies	Definition
-----------	----------	---------	------------

Table 2 Key Caveats

Table 3 Currency Conversion 2013?2016

Table 4 Federally Funded Key Health Insurance Programs in US

Table 5 IONM Related Primary CPT Codes (2017)

Table 6 IONM Add-on Reimbursement Codes Description, 2017

Table 7 IONM Add-on Reimbursement Codes, Key Considerations

Table 8 Description of Advanced Features of Select IONM Equipment

Table 9 YOY Impact of Market Enablers 2016–2022

Table 10 Limitations of Select IONM Modalities

Table 11 YOY Impact of Market Restraints 2016–2022

Table 12 Key Mergers and Acquisitions in Global IONM Market

Table 13 YOY Impact of Trends and Opportunities 2016–2022

Table 14 Global IONM Market by Source-Type, 2016 – 2022 (\$ million)

Table 15 Global IONM Market by Modality, 2016 – 2022 (\$ million)

Table 16 Key Surgeries Monitored through SSEP

Table 17 Global IONM Market by Application, 2016 – 2022 (\$ million)

Table 18 Common IONM Procedures Recommended for Specific Neural Procedures

Table 19 Common IONM Procedures Recommended for Specific Orthopedic

### **Procedures**

Table 20 Common IONM Procedures Recommended for Specific ENT Procedures

Table 21 Global IONM Market by Geography, 2016 – 2022 (\$ million)

Table 22 Natus Medical: IONM Product Portfolio 2017

Table 23 Medtronic IONM Product Portfolio

Table 24 inomed's IONM Product Portfolio 2017

Table 25 Qualitative Summary of Global IONM Market

Table 26 Quantitative Summary of Global IONM Market by Geography (\$ million)

Table 27 Quantitative Summary of Global IONM Market by Geography (Revenue %)

Table 28 Quantitative Summary of Global IONM Market by Source Type (\$ million)

Table 29 Quantitative Summary of Global IONM Market by Modality (\$ million)

Table 30 Quantitative Summary of Global IONM Market by Application (\$ million)



### I would like to order

Product name: Intraoperative Neuromonitoring (IONM) Market - Global Outlook and Forecast 2017 -

2022Intraoperative Neuromonitoring (IONM) Market - Global Outlook and Forecast 2017 -

2022

Product link: https://marketpublishers.com/r/I844AE068B0EN.html

Price: US\$ 3,500.00 (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 <a href="https://marketpublishers.com/r/l844AE068B0EN.html">https://marketpublishers.com/r/l844AE068B0EN.html</a>

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
	Custumer signature

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

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