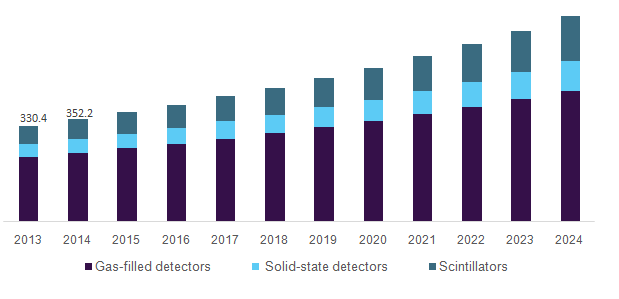
**Industry Insights**

The global radiation detection, monitoring and safety market accounted for USD 890.2 million in 2015 and is anticipated to grow at a CAGR of over 7.3% in the coming years. Rising adoption of [nuclear medicine](http://www.grandviewresearch.com/industry-analysis/nuclear-medicines-market) and radiation therapy as a consequence of the increasing global incidences of cancer are expected to drive the market growth over the forecast period.

According to the International Agency for Research on Cancer (IARC) around 14.1 million new cancer cases were registered and 8.2 million cancer-related deaths were reported worldwide, in the year 2012; it is estimated that in the near future the numbers are to rise to 21.7 million new cancer cases and 13 million cancer-related deaths. The global hike in the estimates is expected to increase the demand for radiation therapy for cancer diagnosis during the forecast period.

**U.S. radiation detection, monitoring & safety market, by detection type, 2013-2024 (USD Million)**



To learn more about this report, [request a free sample copy](http://www.grandviewresearch.com/industry-analysis/radiation-detection-monitoring-and-safety-market/request)

Moreover, the application of nuclear medicine wherein radioactive tracers is employed to enable early cancer detection and monitor disease progression through the visual tracking of the [radiopharmaceuticals](http://www.grandviewresearch.com/industry-analysis/radiopharmaceuticals-industry), which yield tangible information related to the molecular nature of the problem causing bodily disturbances. These systems being far more effective as compared to other conventional medical imaging procedures that solely indicate the anatomical location of the issue is expected to propel industry growth over the forecast period.

Furthermore, the need for safety in radiation & government focus on the same issue generates demand for safety instruments in this market. For example, FDA response in the incident of Fukushima Daiichi nuclear power facility ensures public health and safety to avoid radionuclides in U.S. food supply. Moreover, other government agency such as, CDC for radiations emergency training as well as education & International Atomic Energy Agency (IAEA) that ensures usage of nuclear energy by peaceful ways are the factors expected to drive the industry demand for safety instrument in the near future.

**Detection Type Insights**

Gas-filled detectors held the largest market share in 2015, owing to rising applications in Geiger-Muller counters, ionization chambers, radiation survey meters, and proportional counters. In addition, to the user-friendly nature of these detectors such as portable, durable as well as economical are the factors further augmenting the demand.

Moreover, the Geiger-Muller counters held the largest share in gas-filled detectors as a result of high usage rate in nuclear power plant and manufacturing industries. Furthermore, the variety of alpha, beta, and gamma in Geiger tubes and probes are expected to boost market growth over the forecast period.

**Product Insights**

Personal dosimeters held the largest share of over 60.0% of the product segment in 2015. This growth is attributed to the wide-ranging applications of the dosimeters in nuclear power plants, radiation dose measurements in medical and industrial processes. In addition, the availability of advanced instruments, such as, automated reader instrument, electronic radiation measuring instrument, alarm badges, thermoluminescent dosimeters (TLD), and handheld and portable devices are propelling the growth of this sector over the forecast period.

Moreover, this segment is anticipated to register high growth due to the increasing threat of nuclear attacks and technological advancements, such as, optically stimulated luminescence (OSL), that provide higher accuracy for measurement of low levels of radioactivity. Moreover, the personal dosimeter segment is anticipated to register high growth as a consequence of the increase in the threat of nuclear attacks. The overall increase in the product uptake witnessed as a result of the expansion of the current product portfolio in the companies is expected to push forward the growth of the product segment.

**Safety Type Insights**

Full-body protection held the largest share in 2015, owing to its extensive applications in the form of aprons, barriers & shields. In addition, the advancement in instrument such as hygroscopic aprons, radiation protection and apron storage, neutron shielding, leaded glass, ceiling, and floor shielding are the factors further augmenting the growth in coming years.

Moreover, the associated high prices in lead barriers such as mobile lead barrier costs from USD 5,260 to USD 7,820 thereby, is expected to boost the market growth over the forecast period. However, face & hand protection of safety type segment is anticipated to grow at a lucrative CAGR, due to need for safety in radioactive emission & usage.

**End-use Insights**

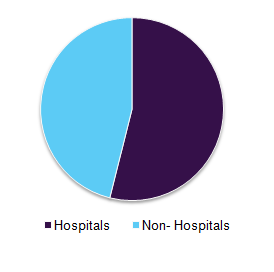
Hospitals held the largest share in 2015, mainly due to the increasing adoption rate of the dosimeters and detectors in radiology, emergency care, dentistry, nuclear medicine, and for therapy purposes. Moreover, enhanced meters are utilized to ensure that patients, as well as the medical personnel, are exposed to radioactive emission at optimal levels, within the permissible limits prescribed by the respective authorities.

These are particularly required in medical procedures, such as angiography, fluoroscopy, computed tomography (CT), and radiographic imaging that employ the more harmful ionizing radioactive rays to perform clinical diagnosis and monitoring. The rise in these interventional applications is expected to stimulate the growth of this sector over the forecast period.

**Regional Insights**

North America held the largest share of the overall market in 2015 at over 45.0%. This can be attributed to the presence of favorable regulatory framework, and technological advancement over this region. For example, Naturally Occurring Radioactive Material (NORM) and Natural Radiation Management in North America ensures the regulatory framework for safety.

**Global radiation detection, monitoring & safety market share, by end-use, 2015**



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Furthermore, the fact wherein, major vendors of this industry are based in U.S. is expected to boost the market growth during the forecast period. Whereas, Asia Pacific is anticipated to grow at a lucrative rate owing to emergence of nuclear power hubs such as India & China thereby, rendering high growth over this region.

**Competitive Insights**

The key players in this industry include Landauer Inc., Mirion Technologies, Inc., Ludlum Measurements, Inc., Thermo Fisher Scientific, Radiation Detection Company, Inc., Canberra Industries, Inc., Arrow-Tech, Inc., Centronic Limited, AmRay Medical, Atomtex SPE, and RAE Systems.

The industry is highly competitive in nature and the market players are involved in activities such as strategic collaborations, new product launches, acquisitions activities and technological advancements. For example, in November 2015, the RAE Systems by Honeywell announced launch of new wireless gas monitoring solution for protection & connect lone workers to further enhance solutions offered to workers.

**Report Scope**

|  |  |
| --- | --- |
| **Attribute** | **Details** |
| Base year for estimation | 2015 |
| Actual estimates/Historical data | 2013 - 2014 |
| Forecast period | 2016 - 2024 |
| Market representation | Revenue in USD Million & CAGR from 2016 to 2024 |
| Regional scope | North America, Europe, Asia-Pacific, Latin America & MEA |
| Country scope | U.S., Canada, UK, Germany, Japan, China, Brazil, Mexico, South Africa |
| Report coverage | Revenue forecast, company share, competitive landscape, growth factors and trends |
| 15% free customization scope (equivalent to 5 analyst working days) | If you need specific market information, which is not currently within the scope of the report, we will provide it to you as a part of customization |

**Segments Covered in the Report**

This report forecasts revenue growth and provides an analysis of the latest trends in each of the sub-segments from 2013 to 2024. For the purpose of this study, Grand View Research has segmented the radiation detection, monitoring and safety market on the basis of product, detection type, end-use, safety type and region:

* **Product Outlook (Revenue, USD Million, 2013 - 2024)**
  + Personal dosimeters
  + Area process monitors
  + Environmental radiation & surface contamination monitors
  + Radioactive material monitors
* **Detection Type Outlook (Revenue, USD Million, 2013 - 2024)**
  + Gas - filled detectors
  + Scintillators
  + Solid - state detectors
* **Safety Type Outlook (Revenue, USD Million, 2013 - 2024)**
  + Full - body protection
  + Face & hand protection
  + Others
* **End-Use Outlook (Revenue, USD Million, 2013 - 2024)**
  + Hospitals
  + Non - Hospitals
* **Regional Outlook (Revenue, USD Million, 2013 - 2024)**
  + North America
    - U.S
    - Canada
  + Europe
    - Germany
    - UK
  + Asia Pacific
    - Japan
    - China
    - India
  + Latin America
    - Brazil
    - Mexico
  + The Middle East and Africa
    - South Africa