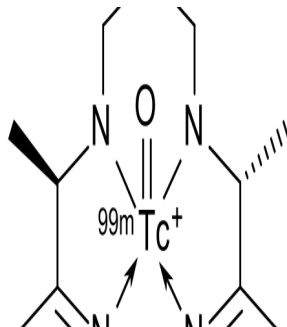


## The European Nuclear Medicine / Radiopharmaceuticals Market



Markets and Markets has announced the release of a report on the European nuclear medicine market over the forecast period 2012-2017.

The European radiopharmaceutical market was valued at \$1.1 billion in 2012 and is poised to reach \$1.6 billion by 2017 at a CAGR of 6.8%.

The radioisotopes market is categorised into diagnostic and therapeutic applications. The diagnostic market consists of PET and SPECT technologies, while the therapy market comprises of beta emitters and brachytherapy seeds. The SPECT market accounted for a major share of the diagnostic segment in 2012. Significant radioisotopes in the SPECT diagnostic market are Tc-99m, Tl-201, Ga-67, and I-123, while the PET market is dominated by F-18 and Rb-82. The therapy market is led by I-131, Sm-153, Re-186, Y-90, and Lu-177. Alpha emitters are being developed and considered for cancer treatment, however they are not available commercially.

It is estimated that Tc-99m diagnostic procedures are expected to increase by more than 15 percent in mature markets of Europe, and other developed regions between 2010 and 2030, however shortage of Mo-99/Tc-99m has been a threat to this industry. The scheduled shutdown of the NRU reactor in Canada in 2016 and OSIRIS in France in 2018 is a major risk for manufacturers in the near future. Companies have increased the production of thallium to meet the shortage, as it is the most commonly used substitute for technetium-99 in cardiac-stress tests, conducted to evaluate the functioning of coronary arteries. Radiopharmaceuticals in neurological applications such as Alzheimer's disease, Parkinson's disease, and dementia are also being preferred by practitioners besides conventional treatment. Upcoming radioisotopes such as Ra-223 (Alpharadin) and Ga-68 possess huge potential for clinical applications.

Increasing use of SPECT and PET scans, technical advancements in equipment and other factors such as rising awareness of radiopharmaceuticals among physicians, alpha radioimmunotherapy based targeted cancer treatment, and ready availability of radiopharmaceutical from cyclotrons have driven the market. High cost of devices using radioisotopes, short half-life, lack of good manufacturing practices, and stringent regulatory approvals are major hurdles to growth of the market.

Germany is the dominant market for diagnostic radioisotopes with 25% share. Over 120 PET-CT facilities contributed significantly to the German market in 2012; the region had around 600 gamma cameras and 76 PET (PET/CT) scanners. Cross sectional imaging such as SPECT (SPECT/CT) and PET (PET/CT) is preferred. Among different European countries, Russia, Turkey, and Czech Republic will be significant due to rising healthcare budgets and increasing popularity in different European nuclear medicine markets of various clinical indications. Processors such as Covidien Plc., and other players from different geographies run reactors that are involved in the irradiation of U-235 to make crude isotopes. They follow various strategies to achieve sustainable growth, one of which is shifting to Low Enriched Uranium (LEU) from High Enriched Uranium (HEU). These key players were mainly involved in strategic agreements and contracts with other institutes and players, while generator manufacturers followed several strategies to maintain a sustainable supply chain.

The stable isotopes market was less than \$25 million in 2012 and is poised to grow at more than 8% CAGR in the next 5 years. Carbon-13 commanded the largest share of the European stable isotope market in 2012; however deuterium and oxygen show tremendous potential to grow in the near future. The market was dominated by two players, Cambridge Isotope Laboratories (CIL) (U.S.) and Isotec (Sigma Aldrich) (U.S.), which in 2012 jointly contributed more than 50% to the European stables revenue.

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