Future of PSMA PET Radiopharmaceutical Market to Reach US$2.1 billion by 2033, Key Players, and Opportunities

PSMA PET Radiopharmaceutical Market Outlook: What Healthcare Leaders and Investors Need to Know

PSMA PET Radiopharmaceutical Market

AUSTIN, TX, UNITED STATES, February 19, 2026 /EINPresswire.com/ -- Market Size and Outlook

Global PSMA PET Radiopharmaceutical Spend & Demand Forecast (2024–2033) Shows Strong Acceleration as PSMA PET Becomes a Core Diagnostic Gateway in Prostate Cancer Care

Rising prostate cancer incidence, expanding PET imaging infrastructure, strong guideline-driven adoption, and rapid growth of PSMA-targeted therapies are structurally increasing PSMA PET procedure volumes and radiopharmaceutical spend worldwide

> United States PSMA PET Radiopharmaceutical Market Forecast with Competitive Landscape and Innovation Pipeline"
>
> *DataM Intelligence 4Market Research LLP*

AUSTIN, Texas and TOKYO – According to DataM Intelligence's Global PSMA PET Radiopharmaceutical Market Spend & Demand Forecast (2024–2033), the global PSMA PET radiopharmaceutical market is entering a high-growth phase as PSMA-targeted imaging becomes a central diagnostic tool across prostate cancer staging, biochemical recurrence detection, therapy eligibility assessment, and longitudinal disease monitoring.

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Based on DataM's spend modeling and extension of observed procedure and pricing trends, global PSMA PET radiopharmaceutical spend is estimated to grow from approximately US$0.6–0.7 billion in 2025 to around US$2.1 billion by 2033, representing a CAGR of approximately 14–16% during 2026–2033. This expansion is driven by sustained increases in PET scan volumes, higher repeat imaging rates, and continued commercial scaling of PSMA-specific tracers across major healthcare markets

The clinical foundation of this growth is strong. PSMA PET imaging has demonstrated ~27–50% higher diagnostic accuracy compared with conventional CT and bone scans, while multiple studies indicate that PSMA PET findings lead to changes in patient management in roughly 30–50% of cases, directly supporting repeat imaging and durable tracer demand

Rapid Expansion of PSMA PET Imaging Volumes Driving a Growing Spend Pool

Hospitals, The PSMA PET radiopharmaceutical market is fundamentally volume-driven, with spend expanding through a clear procedure dose revenue pathway. As prostate cancer diagnosis and monitoring increasingly shift toward molecular imaging, hospitals, academic medical centers, and independent imaging networks are rapidly scaling PSMA PET utilization.

DataM's modeling framework highlights that PSMA PET procedures in mature markets already exceed 600,000 annual scans, with expansion scenarios ranging from ~900,000 scans under broader guideline adoption to 1.7 million scans under label expansion and earlier pathway entry, particularly for initial diagnosis and therapy selection

Each incremental procedure directly translates into higher radiopharmaceutical dose demand, reinforcing the structural nature of market growth.

Importantly, PSMA PET utilization is no longer limited to single-time diagnostic events. Patients frequently undergo multiple scans across the care pathway baseline staging, recurrence detection, therapy eligibility confirmation, and post-therapy monitoring—creating recurring demand per patient rather than one-time usage.

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F-18 Tracer Segment Emerges as the Primary Growth Engine Within the PSMA PET Market

The Fluorine-18 (F-18) PSMA tracer segment is increasingly becoming the main growth engine in the PSMA PET market because it is structurally better suited for commercial scale-up, especially through centralized production and broader distribution networks. A key, quantifiable advantage is isotope physics: F-18 has a longer physical half-life (109.7 minutes) versus Ga-68 (67.7 minutes), which directly improves delivery feasibility and reduces time pressure across synthesis, quality checks, transportation, and site scheduling making F-18 far more compatible with hub-

and-spoke distribution and higher daily throughput.

F-18's performance profile also supports adoption at scale. Multiple technical reviews note that F-18 has lower maximum positron energy (0.63 MeV) than Ga-68 (1.89 MeV), which reduces positron range and can contribute to higher image resolution, strengthening clinical confidence in routine PSMA PET deployment for staging and recurrence imaging. In parallel, manufacturing economics favor F-18 as demand expands: F-18 can be produced via cyclotrons for larger-scale production, whereas Ga-68 is often constrained by Ge-68/Ga-68 generator-based output, making F-18 more scalable as procedure volumes rise across broader geographies.

Commercial traction reinforces that F-18 is already the dominant scaling platform in high-value markets. The FDA's May 27, 2021 approval of PYLARIFY (piflufolastat F 18) helped establish F-18 PSMA PET as a mainstream diagnostic pathway in the U.S. and created a foundation for broad site penetration. Real-world demand signals remain strong: Lantheus reported PYLARIFY sales of US$250.6 million in Q2 2025 and US$240.6 million in Q3 2025

indicating sustained high-volume utilization consistent with a scalable F-18 commercial distribution model. Global expansion is also accelerating through strategic licensing structures GE HealthCare and Lantheus announced an exclusive licensing agreement for PYLARIFY in Japan (Sept 24, 2025), highlighting how F-18 PSMA tracers are being positioned for broader Asia market access using large-scale OEM and distribution partner ecosystems.

Net impact: As PSMA PET adoption expands beyond tertiary centers into wider hospital and imaging-center networks, the market increasingly rewards tracer platforms that can scale manufacturing volume, distribution radius, and daily site throughput making F-18 PSMA tracers the most commercially advantaged segment for capturing incremental PSMA PET radiopharmaceutical demand growth, while Ga-68 retains relevance primarily in localized generator-based supply environments.

In contrast, Ga-68 tracers while instrumental in early PSMA PET adoption face structural limitations related to generator capacity, shorter half-life logistics, and restricted distribution radius. While Ga-68 remains relevant in localized radiopharmacy models and early-stage markets, DataM Intelligence expects F-18 tracers to account for the majority of incremental spend growth through 2033, particularly in North America, Europe, and advanced Asia-Pacific markets

Regional Dynamics: North America Anchors Revenue While Asia-Pacific Delivers the Fastest Growth

North America is expected to remain the largest revenue-contributing region in the PSMA PET radiopharmaceutical spend pool over 2024–2033, driven by a rare combination of large addressable prostate cancer patient volume, mature PET/CT infrastructure, strong commercial availability of FDA-approved PSMA PET agents, and a fast-scaling PSMA-targeted therapy

ecosystem that structurally increases repeat imaging demand. In the United States alone, the prostate cancer burden remains one of the highest globally the American Cancer Society estimates 313,780 new prostate cancer cases and 35,770 deaths in 2025, reinforcing a large and continuously renewing diagnostic pipeline that supports both initial staging and recurrence imaging volumes.

A key differentiator for North America is earlier commercialization and broad clinical access to PSMA PET tracers. The U.S. FDA approved PYLARIFY (piflufolastat F 18) for PSMA-targeted PET imaging in May 2021, accelerating access to a scalable F-18 supply model that can support high-throughput imaging networks. This approval wave followed earlier FDA momentum for PSMA imaging, including Ga-68 PSMA imaging approvals, which expanded clinical adoption and physician familiarity with PSMA PET as a standard diagnostic tool.

Commercial performance in North America also provides a strong real-world utilization signal. Lantheus reported PYLARIFY sales of US$240.6M in Q3 2025 and US$250.6M in Q2 2025, indicating sustained high-volume tracer demand across U.S. imaging sites (with quarterly variations reflecting mix and timing). In addition, company disclosures and earnings communications show the PSMA PET franchise has achieved billion-dollar annual scale in recent years, reinforcing that North America has already moved beyond early adoption into a mature, recurring-procedure market.

Finally, North America's PSMA PET growth is increasingly reinforced by therapy-linked imaging "pull-through." As PSMA-targeted therapies expand, PSMA PET becomes the gatekeeper test for patient selection and follow-up monitoring driving repeat scans per patient and strengthening demand continuity. These dynamic supports both procedure growth and spend resilience even when per-dose pricing normalizes over time.

Europe follows as the second-largest regional market, where national reimbursement decisions, expanding hospital radiopharmacy networks, and guideline alignment are supporting steady adoption across major countries including Germany, France, the UK, and Italy.

Asia-Pacific is expected to be the fastest-growing region over the forecast period

Asia-Pacific is expected to be the fastest-growing region for PSMA PET radiopharmaceutical demand during 2024–2033, supported by a combination of large and rising prostate cancer burden, rapid expansion of PET/CT imaging infrastructure, and increasing policy and reimbursement support that is moving PSMA PET beyond early adoption into routine clinical pathways. On the demand side, APAC has several of the world's largest prostate cancer patient pools China reported ~134,156 new prostate cancer cases in 2022 and Japan 104,318, while India recorded 37,948 new cases, creating a large and expanding addressable base for staging and recurrence imaging.

On the supply and access side, countries in the region are actively expanding PET capacity and

clinical readiness. In Australia, PSMA PET was listed for funding under the Medicare Benefits Schedule (MBS) from 1 July 2022, which structurally improves affordability and accelerates procedure volumes by enabling broader physician ordering and patient access. In Japan, momentum is strengthening through both commercial and clinical pipelines: Lantheus and GE HealthCare announced an exclusive licensing agreement for PYLARIFY (18F-DCFPyL) in Japan, a key step toward expanding F-18 PSMA PET availability in a major high-value diagnostic market. Japan is also progressing clinical expansion of next-generation PSMA imaging options, with a Phase III international clinical trial of 18F-PSMA-1007 initiated in Japan (multi-center), reinforcing broader physician exposure and future adoption pathways.

Taken together, APAC's large patient base, expanding reimbursement coverage, and accelerating commercial + clinical footprint for PSMA tracers position the region for the strongest incremental growth in PSMA PET procedure volumes and radiopharmaceutical spend over the forecast period.

Competitive Landscape and Strategic Developments

The competitive landscape of the PSMA PET radiopharmaceutical market is defined by tracer developers, isotope suppliers, imaging technology providers, and radiopharmacy networks competing on supply reliability, geographic reach, tracer performance, and ecosystem integration.

Key players active across the value chain include Telix Pharmaceuticals, Lantheus Holdings, Curium Pharma, GE HealthCare, Siemens Healthineers, Bayer, Novartis, Eckert & Ziegler, Jubilant Pharmova, Cardinal Health, Bracco Imaging, and SOFIE

Key Developments:
• January 2025 – Telix completes acquisition of RLS (USA) Inc. to strengthen radiopharmacy distribution and build an integrated radiopharmaceutical ecosystem.

This move supports scale-up of PSMA PET dose preparation and last-mile delivery critical for maintaining reliable supply as scan volumes rise across U.S. imaging networks.

• September 2025 – Lantheus and GE HealthCare announce an exclusive licensing agreement for PYLARIFY (piflufolastat F 18) in Japan.

The agreement expands PSMA PET access into a major high-value imaging market and supports broader geographic penetration of F-18 PSMA tracers through a global OEM + tracer partnership model.

• September 2024 – Curium announces first availability of PYLCLARI (piflufolastat (18F)) in Spain. This marks a commercial expansion milestone for an F-18 PSMA PET tracer in Europe, directly supporting increased procedure access and country-level demand buildout.

• August 2025 – FDA accepts an NDA for a new formulation of piflufolastat F 18 (PSMA PET imaging agent), with a PDUFA target action date of March 6, 2026.

A formulation upgrade typically signals efforts to improve usability, production efficiency, stability, or site experience important for supporting higher throughput and scaling dose logistics.

• October 2025 – Curium Group, PeptiDream, and PDRadiopharma enroll the first patient in a registrational clinical trial of 64Cu-PSMA-I&T in Japan. This highlights next-wave PSMA PET tracer innovation (copper-64) and reinforces Asia's clinical and regulatory momentum for PSMA imaging expansion
These strategic initiatives highlight industry focus on scaling F-18 production, strengthening radiopharmacy infrastructure, and vertically integrating diagnostics with therapy pathways.

Strategic priorities across the competitive landscape increasingly focus on:

• Scaling F-18 manufacturing capacity
• Expanding radiopharmacy and distribution networks
• Strengthening alignment between diagnostics and PSMA-targeted therapies
• Improving consistency of supply to support high-volume clinical use

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Leading Company Profiles and Strategic Developments

Novartis AG plays a pivotal role in indirectly accelerating PSMA PET demand through the rapid expansion of PSMA-targeted therapy adoption. In FY2025, Novartis reported approximately US$2.0 billion in Pluvicto revenue, representing ~43% year-over-year growth, signaling strong uptake of PSMA-positive patient identification pathways. As PSMA PET is required for therapy eligibility and monitoring, this growth structurally increases diagnostic scan volumes and tracer consumption.

Lantheus Holdings, Inc. continues to strengthen its leadership in PSMA PET diagnostics through sustained commercial growth of its PSMA imaging franchise. In 2024, the company reported quarterly PSMA PET diagnostic sales exceeding US$260–270 million, with double-digit to high-double-digit growth rates attributed to increasing procedure volumes, expanded site coverage, and growing physician confidence in PSMA PET imaging.

Telix Pharmaceuticals Limited has accelerated commercialization of its PSMA imaging portfolio, reporting FY2025 group revenues of approximately US$800 million, supported by global expansion of its radiopharmaceutical footprint. Telix's focus on centralized production,

international distribution partnerships, and lifecycle expansion of PSMA imaging agents positions it to benefit directly from rising global PSMA PET utilization.

Across the ecosystem, additional players such as Curium Pharma and Eckert & Ziegler are investing in isotope supply security and manufacturing partnerships, while imaging majors GE HealthCare and Siemens Healthineers are expanding PET system installations and integrated workflow solutions to support higher PSMA PET throughput at the site level.

Outlook

DataM Intelligence expects the global PSMA PET radiopharmaceutical market to remain one of the fastest-growing segments within precision diagnostics through 2033. Growth will be underpinned by expanding PET access, continued guideline reinforcement, increasing PSMA-targeted therapy penetration, and the ongoing shift toward centralized F-18 tracer production.

As PSMA PET transitions from a specialized imaging tool to a routine component of prostate cancer care pathways, the market is evolving toward integrated diagnostic-therapy ecosystems. Companies that can reliably scale production, ensure consistent distribution, and align diagnostics with therapeutic decision-making are expected to capture disproportionate value from this structurally expanding spend pool.

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