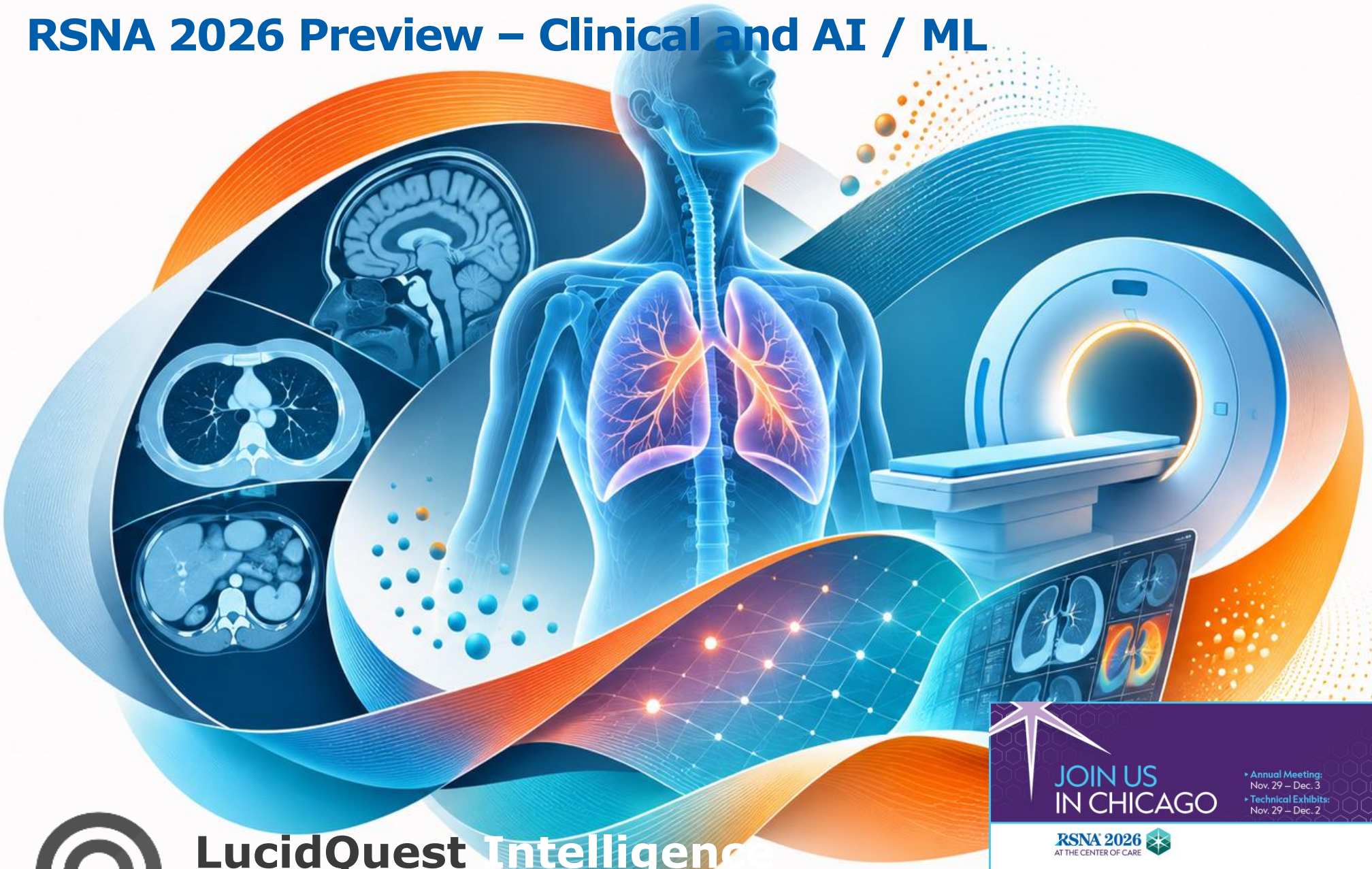
RSNA 2026 Preview – Clinical and AI / ML



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RSNA 2026 Preview – Table of Contents

- New Trends in Radiology & Imaging Innovation At RSNA'26 3-5
- Key Sessions To Watch 6-7
- Industry-sponsored Sessions & Focus Areas At RSNA 2026 8-16
  - Competitive Landscape At a Glance at RSNA 2026 9-10
  - Key Industry-sponsored Sessions At RSNA 2026 11-14
  - Emerging Technologies & Development Areas 15-16
- AI/ML Trends & Strategic Watchpoints At RSNA 2026 17-20
  - AI / Digital Health Angle At RSNA 2026 18-20
- What We're Watching For Post-congress 21
- Get In Touch With LucidQuest 22

RSNA 2026 – New Trends in Radiology & Imaging Innovation (1/3)

- **Advances across diagnostic imaging subspecialties will remain central to the scientific programme**
  - RSNA 2026 will feature a broad range of research across breast, cardiac, chest, gastrointestinal, genitourinary, musculoskeletal, neurological, paediatric and vascular imaging. Sessions will examine disease detection, diagnostic characterisation, treatment response and imaging-based assessment across specialties. The programme will provide insights into how advances in imaging research are supporting more specialised and clinically relevant diagnostic approache
- **Next-generation imaging technologies will advance CT, MRI, ultrasound and molecular imaging**
  - The programme will explore developments across major imaging modalities, including photon-counting CT, dual-energy and advanced CT techniques, cardiac and abdominal MRI, breast ultrasound, contrast-enhanced imaging and molecular imaging. Scientific and industry presentations will also examine image reconstruction, acquisition techniques, contrast agents and imaging quality, highlighting continued innovation in imaging capabilities and clinical applications

RSNA 2026 – New Trends in Radiology & Imaging Innovation (2/3)

- **Clinical validation, safety and post-deployment monitoring will become central to AI adoption**
  - RSNA 2026 will focus on evaluating AI performance beyond initial model development. Sessions will address diagnostic errors, performance inflation in multimodal models, nonconforming inputs, dataset confounders and performance drift. Research will also examine the real-world performance of FDA-authorised radiology AI devices and the use of large language models for post-deployment monitoring, highlighting the importance of ongoing validation and trustworthy implementation
- **AI-enabled acquisition and reconstruction will support imaging quality and workflow efficiency**
  - The programme will include dedicated scientific sessions on foundation and multimodal models in radiology, generative AI and LLMs. Research will examine the integration of imaging findings with clinical information, and the application of foundation models across imaging modalities. Industry presentations will also address the combination of imaging with electronic health records, pathology, laboratory results and longitudinal outcomes to support more clinically relevant AI applications

RSNA 2026 – New Trends in Radiology & Imaging Innovation (3/3)

- **Quantitative imaging and imaging-derived biomarkers will support more detailed disease assessment**
  - RSNA 2026 will include research on quantitative and functional imaging approaches across multiple specialties. Topics will include body composition assessment, cardiac imaging biomarkers, vascular perfusion and haemodynamics, radiomics, organ volumetry and metabolic imaging signatures. These developments highlight the expanding role of imaging in characterising disease, assessing risk and supporting longitudinal evaluation beyond conventional anatomical interpretation
- **Interventional radiology will continue to expand image-guided treatment applications**
  - The scientific programme will cover image-guided procedures across vascular, oncological and musculoskeletal applications. Sessions will examine embolisation techniques, tumour-directed interventions, breast ablation and non-surgical treatment approaches, alongside advances in procedural imaging and treatment planning. The programme will provide an opportunity to assess how imaging technologies are supporting the development of minimally invasive and targeted interventions

Key Sessions To Watch (1/2)

Date	Session Title (short)	Type	Author / Institution	Why Watch
01 Dec 2026	From Pixels to People: Humanism, Equity, and AI in Interventional Radiology	Plenary Session	Janice M. Newsome	The plenary will explore the relationship between AI, humanism and equity in interventional radiology, connecting technology development with patient-centred care
01 Dec 2026	Breast Imaging (Artificial Intelligence for Breast Cancer Detection: Performance, Validation, and Radiologist Impact)	Scientific Session	Nisha Sharma; Joshua Rothwell; Eun Young Ko; Ojas Ankurbhai Ramwala	The session will examine prospective AI evaluation in symptomatic breast clinics, autonomous reading, false interpretation, FDA-cleared AI tools and the impact of AI assistance on radiologists
01 Dec 2026	Imaging Informatics (Foundation & Multimodal Models in Radiology)	Scientific Session	Wenxuan Li; Jason Klug; Selena Jean-Mactoux; Mohammed S. Baharoon	Selena Jean-Mactoux; Mohammed S. BaharoonThe session will explore foundation models across imaging modalities, vision-language models, multimodal CT analysis and the integration of imaging findings with clinical biomarkers
01 Dec 2026	Imaging Informatics (Generative AI and LLMs: From Reports to Clinical Reasoning)	Scientific Session	Ali Emami; John D. Karp; Yuta Tokuoka; Louisa Fay	The session will examine LLM-based reporting, automated CT/MRI protocoling, multi-agent EHR summarisation and the use of vision-language models in image analysis.
02 Dec 2026	Imaging Informatics (Trustworthy AI: Evaluation, Safety, and Failure Modes)	Scientific Session	Sameed Khan; Quirin Strotzer; Guillaume Herpe; Aditya Gowd	The session will address AI diagnostic errors, model performance inflation, nonconforming inputs, dataset confounders and post-market monitoring of deployed AI systems.

Key Sessions To Watch (2/2)

Date	Session Title (short)	Type	Author / Institution	Why Watch
02 Dec 2026	Science Session with Keynote: Neuroradiology (Artificial Intelligence: Image Interpretation)	Scientific Session	Xin Ge; Maria Sanmartin; Shreyas Puducheri; Khalid Saifullah	The session will cover AI-assisted brain MRI interpretation, glioma classification, cerebral microbleed detection, vision-language models and comparisons with radiologist performance
03 Dec 2026	Imaging Informatics (Clinical AI Deployment: Evaluation, Impact, and Disease-Specific Applications)	Scientific Session	Domenico Mastrodicasa; Jing-Jhong Chen; Alberto Colombo	The session will examine real-world AI deployment, reporting turnaround time, AI-enhanced image analysis, clinical workflow integration and evaluation of generative radiology reports

Industry-Sponsored Sessions & Focus Areas – RSNA 2026



RSNA 2026– Competitive Landscape at a Glance (1/2)

Name	Sessions	Companies / Assets	Why It Matters
Breast imaging and screening	Multiple	Lunit; GE HealthCare / Invenia ABUS, Verisound AI and QVCAD; ScreenPoint Medical; Hologic	Highlights developments in breast screening, diagnostic assessment and complementary imaging approaches for breast cancer detection and staging
CT and advanced image acquisition	Multiple	Siemens Healthineers / NAEOTOM Alpha; Canon Medical Systems; United Imaging; GE HealthCare	Explores advances in CT technology, including photon-counting CT, coronary imaging, image reconstruction and clinical applications across cardiovascular, chest and other imaging pathways
MRI and advanced MR applications	Multiple	Siemens Healthineers; AIRS Medical; Hyperfine; Cerebriu	Covers advances in cardiac, liver, brain and body MRI, alongside workflow optimisation, image quality, portable MRI and emerging quantitative imaging applications
Ultrasound and contrast-enhanced imaging	Multiple	GE HealthCare; Samsung; Bracco	Examines the expanding role of ultrasound across breast, abdominal, intestinal, liver, vascular and women's health imaging, including multiparametric and contrast-enhanced approaches

RSNA 2026– Competitive Landscape at a Glance (2/2)

Name	Sessions	Companies / Assets	Why It Matters
Chest and pulmonary imaging	Multiple	Median Technologies / eyonis LCS; 4DMedical; Lunit	Focuses on lung cancer screening, pulmonary nodule assessment, chest X-ray interpretation and evolving approaches to pulmonary function and ventilation–perfusion assessment
Cardiac and vascular imaging	Multiple	Siemens Healthineers; Keya Medical / DVPlaque and DVFFR; Caristo Diagnostics / FAI-Score	Highlights developments in coronary CT angiography, plaque characterisation, fractional flow reserve assessment, cardiac MRI and quantitative evaluation of cardiovascular risk and inflammation
Nuclear medicine and molecular imaging	Multiple	Siemens Healthineers; Canon Medical Systems; Bracco	Covers PET image reconstruction, molecular imaging applications and the use of advanced imaging approaches in oncology, neurological conditions and women's health
Enterprise imaging, AI and radiology workflows	Multiple	AGFA HealthCare; Dell Technologies and NVIDIA; Lunit; Neurophet / AQUA AD; AIRS Medical	Explores how AI, advanced computing and imaging informatics are being applied to reporting, image analysis, workflow optimisation, clinical monitoring and the development of imaging models

Key Industry-Sponsored Sessions at RSNA 2026 (1/4)

- **Lunit:**
  - Focus Areas: Breast imaging, screening pathways, image-based risk assessment and clinical implementation of AI
  - Lunit's programme will feature multiple workshops on breast imaging, including experience from the Leeds Symptomatic Breast Clinic, Sweden's AI double-reading implementation and breast AI adoption in Latin America. Presentations will also cover Lunit INSIGHT DBT performance, image-based breast cancer risk assessment and approaches to improving screening follow-up
- **GE HealthCare:**
  - Focus Areas: Breast imaging, automated breast ultrasound, abdominal ultrasound and clinical applications across specialties
  - GE HealthCare's programme will explore the role of ultrasound across breast screening, metabolic liver disease, inflammatory bowel disease, endometriosis and paediatric imaging. Sessions will include an Invenia ABUS masterclass and discussions on ultrasound applications in patient assessment and management, highlighting the breadth of its ultrasound portfolio

Key Industry-Sponsored Sessions at RSNA 2026 (2/4)

- **Siemens Healthineer:**
  - Focus Areas: Photon-counting CT, cardiovascular imaging, advanced MRI and molecular imaging
  - Siemens Healthineers' programme will highlight developments in photon-counting CT and coronary plaque analysis, alongside applications in cardiac MRI, advanced liver MRI, breast imaging and molecular imaging. Sessions will also examine imaging approaches in Alzheimer's disease, women's health and oncology, reflecting a broad focus on advanced diagnostic imaging.
- **Canon Medical Systems:**
  - Focus Areas: CT innovation, photon-counting CT, PET reconstruction and musculoskeletal imaging
  - Canon Medical Systems will present developments in CT technology, including sessions on photon-counting CT and clinical applications of advanced CT systems. Its programme will also cover deep-learning-based PET image reconstruction and musculoskeletal imaging, with discussions on how imaging technologies can support clinical assessment and workflow optimisation

Key Industry-Sponsored Sessions at RSNA 2026 (3/4)

- **Median Technologies:**
  - Focus Areas: Lung cancer screening, low-dose CT and pulmonary nodule assessment
  - Median Technologies' programme will showcase its eyonis LCS platform through a live lung screening challenge and a dedicated presentation. The sessions will focus on lung cancer screening and pulmonary nodule detection, localisation and characterisation, highlighting developments in CT-based screening approaches
- **4DMedical:**
  - Focus Areas: Pulmonary imaging and ventilation–perfusion assessment
  - 4DMedical's session, Rethinking the PE Imaging Pathway: Can We See V/Q Without Contrast or Nuclear Medicine?, will examine emerging approaches to pulmonary imaging in the assessment of pulmonary embolism. The presentation will explore whether ventilation–perfusion information can be evaluated through alternative imaging approaches

Key Industry-Sponsored Sessions at RSNA 2026 (4/4)

- **Hologic:**
  - Focus Areas: Contrast-enhanced mammography, breast cancer staging and diagnostic assessment
  - Hologic's programme will focus on the role of contrast-enhanced mammography in breast cancer assessment, including optimisation of cancer staging and interim findings from the TOCEM trial evaluating contrast-enhanced mammography alongside tomosynthesis. Sessions will also bring together radiological and surgical perspectives on breast cancer diagnosis and treatment
- **Dell Technologies & NVIDIA:**
  - Focus Areas: Local AI agents, multimodal imaging models and AI-supported clinical reasoning
  - A key focus will be NV-Reason-CT, a 3D vision-language model designed for native 3D CT analysis, structured reporting and explainable reasoning. These presentations will explore the potential of local AI infrastructure and multimodal models to support advanced imaging analysis and more integrated radiology workflows

Emerging Technologies & Development Areas (1/2)

Asset / Company	2026 Presence
NAEOTOM Alpha / Siemens Healthineers	Photon-counting CT technology featured in presentations covering coronary artery disease, plaque analysis and the expanding clinical applications of advanced CT imaging
Photon-counting CT / Canon Medical Systems	CT innovation and photon-counting CT featured in sessions examining advances in image acquisition and their potential clinical applications
Advanced MRI / Siemens Healthineers	Presentations covering cardiac MRI, advanced liver MRI and MRI applications in oncology, alongside workflow approaches intended to improve examination efficiency
Portable MRI / Hyperfine	Presentation examining the technical feasibility of portable MRI in environments with electromagnetic interference, highlighting developments beyond conventional shielded MRI settings
Invenia ABUS / GE HealthCare	Automated breast ultrasound featured in a masterclass and presentations on breast imaging, screening and the role of ultrasound in clinical assessment
Contrast-enhanced mammography / Hologic	Presentations examining contrast-enhanced mammography for breast cancer staging and detection, including interim findings from the TOCEM trial alongside tomosynthesis
PET image reconstruction / Canon Medical Systems	Clinical assessment of a three-level deep-learning-based image reconstruction method for PET, highlighting developments in nuclear medicine imaging
eyonis LCS / Median Technologies	Lung cancer screening platform featured in a live low-dose CT workshop, with focus on pulmonary nodule detection, localisation and characterisation

Emerging Technologies & Development Areas (2/2)

Asset / Company	2026 Presence
DVPlaque and DVFFR / Keya Medical	Tools for coronary plaque analysis and CT-derived fractional flow reserve, presented through the DVCloud interactive platform
AIRS Medical / MRI Body Composition	Presentation exploring MRI-based body composition assessment in metabolic health, healthy ageing and preventive imaging
Deep Resolve / Siemens Healthineers	Deep-learning reconstruction technology featured in presentations on CT and MR imaging, with relevance to image quality and workflow efficiency
NV-Reason-CT / Dell Technologies & NVIDIA	3D vision-language model featured in a presentation on CT analysis, structured reporting and explainable diagnostic reasoning

AI/ML Trends & Strategic Watchpoints at RSNA 2026



AI / Digital Health Angle at RSNA 2026 (1/3)

- **AI will move from isolated applications towards agentic radiology workflows**
  - RSNA 2026 will feature presentations on agentic reporting platforms, workflow orchestration and AI-supported clinical action. Sessions will examine how different AI capabilities could work together across imaging orders, clinical context, image interpretation, structured reporting and follow-up. Industry presentations from Jacobian, RADIN HEALTH and PocketHealth will explore agentic approaches to radiology reporting and non-clinical departmental workflows. The strategic question will extend beyond what an AI model can identify to how its output could trigger an appropriate and accountable next step
- **Foundation models and multimodal AI will broaden the use of imaging data**
  - The scientific programme will include dedicated sessions on foundation and multimodal models, generative AI and LLMs. Research will explore vision-language models for imaging interpretation, free-text promptable segmentation, multimodal CT analysis and the integration of clinical information with imaging findings. Industry presentations from Segmed and Dell Technologies/NVIDIA will further examine multimodal data access, local open models and 3D vision-language approaches

AI / Digital Health Angle at RSNA 2026 (2/3)

- **Connected imaging workflows will extend beyond image interpretation to patient follow-up and care coordination**
  - RSNA 2026 will include presentations on structured reporting, imaging interoperability, digital health platforms and closed-loop patient follow-up. Research will examine an integrated digital health platform for patients with coronary artery disease undergoing CCTA, combining structured reporting, AI-enhanced image analysis and longitudinal monitoring. Industry presentations will also explore the connection between imaging orders, clinical action and follow-up recommendations
- **Key sessions include:**
  - From Imaging Orders to Clinical Action: Improving Patient Care with Agentic Workflows and Novel Foundational AI Biomarkers
  - From Order to Closed-Loop Follow-Up: Orchestrating the Radiology Patient Journey
  - The Connected Room: Structured Reporting and Interoperability That Work for You
  - AI in Flow: From Algorithm Output to Clinical Action – Findings from a Multicentre Research
  - An Integrated Digital Health Platform for the Management of Patients with Coronary Artery Disease Undergoing CCTA
  - Imaging's Next Frontier: Connecting Intelligence Across the Clinical Workflow

AI / Digital Health Angle at RSNA 2026 (3/3)

- **Sessions suggest AI and digital tools are increasingly being used to improve:**
  - Breast cancer detection, screening efficiency and image-based risk assessment
  - Image acquisition, reconstruction and image quality
  - Multimodal imaging interpretation and clinical information integration
  - Automated reporting, protocoling and structured documentation
  - Clinical workflow prioritisation, follow-up and care coordination
  - AI validation, performance monitoring and governance
  - Quantitative imaging, risk assessment and opportunistic biomarker development

What We're Watching for Post-RSNA 2026

- Whether photon-counting CT and advanced CT technologies demonstrate meaningful improvements in image quality, cardiovascular assessment and broader clinical applications
- Whether advances in MRI across cardiac, liver, neurological and oncological imaging translate into improved diagnostic capabilities, faster examinations and more efficient workflows
- Whether automated and contrast-enhanced breast imaging approaches demonstrate measurable value in cancer detection, screening accuracy, risk assessment and clinical implementation
- Whether ultrasound applications continue to expand across breast, abdominal, liver, intestinal and women's health imaging, supporting more comprehensive clinical assessment
- Whether new approaches in pulmonary imaging improve lung cancer screening, pulmonary nodule assessment and the evaluation of ventilation–perfusion abnormalities
- Whether advances in nuclear medicine and PET reconstruction improve image quality and support broader applications in oncology, neurology and molecular imaging
- Whether AI-enabled imaging and reconstruction technologies demonstrate consistent real-world value in image acquisition, interpretation, reporting, workflow efficiency and clinical decision support

Strategic Insights and Strategy Development is our focus

