Sample:
LSI 2025 Emerging *Innovators Report*

Proprietary LSI Event Data and Compass Insights on 500+ Medtech Innovators

LSI | COMPASS

This is a sample. Contact the LSI team for access to the full report.

LETTER FROM THE EDITORS

Dear Readers,

Innovation, capital, and partnering are what move medtech forward. That intersection is where LSI lives. Every year, founders, investors, strategics, bankers, and advisors come together at our global LSI summits to do one thing: find and fund the technologies that will define the future of healthcare.

This 2025 Emerging Innovators Report is the annual snapshot of that ecosystem.

In 2025, we selected over 500 emerging companies to take the stage across our three LSI summits. Together, these innovators have already raised more than $10.58B in capital, and in calendar year 2025 alone they were in the market for an additional $6.995B in follow-on rounds. Since stepping into the LSI spotlight, they have driven hundreds of new financings, M&A transactions, and strategic partnerships.

This report is designed to give you a single, reliable view of that dealflow.

The companies featured here span 36 countries, with 274 based in the United States, 147 across Europe, and more than 99 from the rest of the world. They cover the full spectrum of early-stage medtech: over half are in pre-seed, seed, or Series A, with another 140+ at Series B and C and a meaningful cohort entering later-stage scale-up.

Their technologies tackle the toughest problems in healthcare, from nearly eighty companies focused on neurological disease, to a similar number targeting cardiovascular conditions, more than eighty in orthopedics, over thirty in urology, and close to sixty explicitly leveraging AI to reimagine diagnostics, interventions, and care delivery.

Our goal with this report is simple: to be the annual, single source of truth for the most important early-stage medtech companies in the world. If you are an investor looking for your next breakout opportunity, a multinational searching for future acquisition targets, an investment bank supporting the next wave of IPOs, or a best-in-class service partner seeking to build tomorrow's category leaders, this report is built for you. Every company profiled here isn't just on our radar: they are already reshaping the care we experience today.

What makes this work unique is not just the list of companies, but the ecosystem and data behind it. The insights in this report are powered by Compass, LSI's AI-driven private market insights platform. Compass connects what happens on our stages and in our partnering rooms with a continuously-updated view of private market activity, investment decisions, competitive landscapes, and the broader trends shaping global medtech. What you see in these pages is broad by design. For deeper analysis on any company, its peers, or its market, Compass is your gateway.

We are committed to publishing the Emerging Innovators Report once per year as our "state of the union" for early-stage medical technologies. Our belief is that any early-stage medtech company of real consequence will either already appear in these pages or soon will. If you stay close to this report, its supporting content, and the LSI community that powers it, you will not be far from the next wave of opportunity.

We hope you find this report useful, and we look forward to supporting you and your organization as you build the next generation of breakthrough medtech businesses.

Thanks for being part of this community.

All the best,

Scott Pantel & Henry Peck
Editors-in-Chief

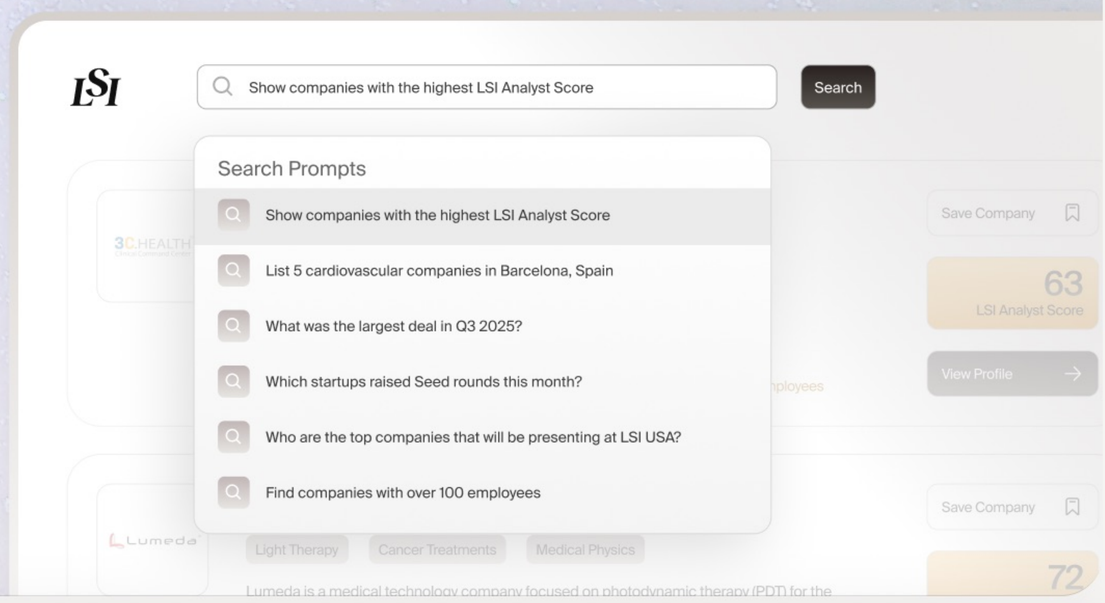
BUILT WITH COMPASS

The LSI 2025 Emerging Innovators Report covers every startup company that presented at LSI summits in 2025, with the expert insights and proprietary intelligence that power our Compass AI platform. Inside are company profiles, funding activity, executive summaries, and curated analyst commentary, all drawn from the same internal datasets used by the LSI Market Intelligence team. The result is a single, structured view of the year's most significant early-stage and growth-stage innovators, presented in a format built to support research, sourcing, and strategic planning.

Users can now generate reports inside Compass using AI Agents, which turn natural-language prompts into tailored analyses, competitive landscapes, or investor-ready summaries. The AI Agents automatically pull from Compass datasets that cover companies, deal activity, market forecasts, and editorial content, in concert with trusted external resources to strengthen context. Whether you need diligence briefs, market maps, or presentation-ready insight packs, Compass AI Agents allow you to create polished reports on demand, fully aligned to your workflow.

Navigate medtech with AI insights and *data you can trust*

Compass is the medtech-specific AI research platform, built by medtech analysts for the medtech operators, investors, and strategic executives who need to move quickly and make confident decisions.

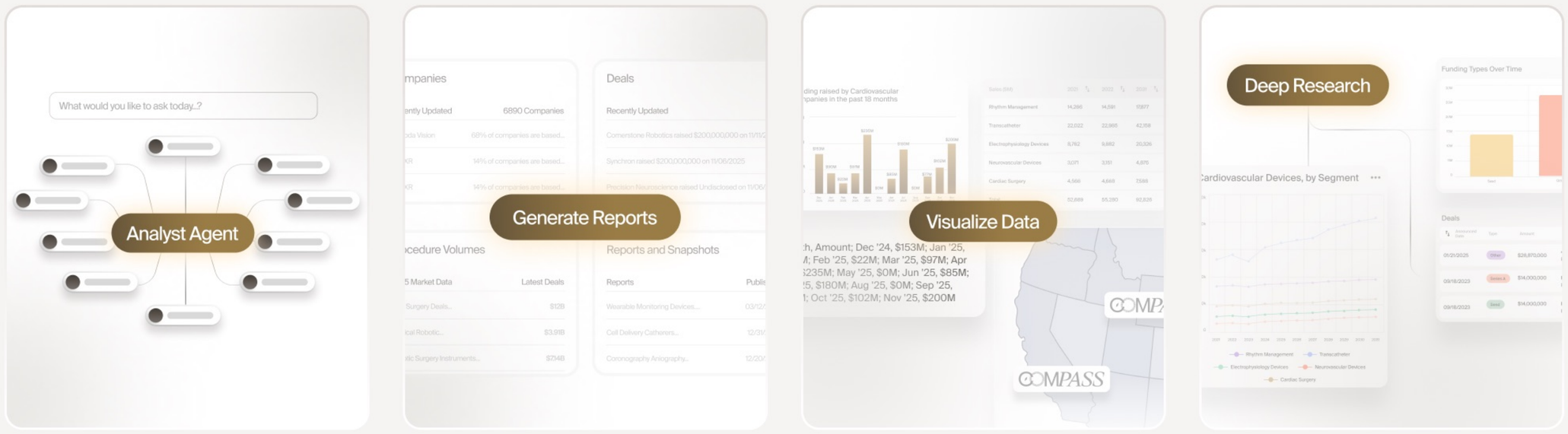


Private market data, vetted research, and curated content that *no one else has*

Discover emerging companies, track industry deals, and analyze market landscapes with AI that synthesizes millions of data points from LSI's proprietary datasets, built on decades of primary research and direct company relationships

AI agents that understand *medtech and your workflows*

Compass's intelligent agents turns natural-language questions into actionable insights, automatically sourcing from across LSI's entire database, visualizing trends, and drafting reports.



LSI | COMPASS Purchase now to access this data and build your own reports.

TABLE OF INNOVATORS

TABLE OF INNOVATORS

COMPASS DATA

ABILITY

ABILITY Neurotech

CLINICAL (PRE-REVENUE)

NEURO

Year Founded	2025
Employees	16
Key Executive	Craig Cook craig.cook@abilityneuro.com
Raised to Date	Undisclosed
Currently Raising (2025)	$40,000,000
Commercial Status	Clinical (Pre-Revenue)
Major Milestones	FDA Breakthrough Device Designation, First human trials
Target Markets	Neuro
Location	Switzerland
Company Website	abilityneuro.com

COMPASS INSIGHTS

Pioneering Neurotechnology with BCI Tech for Severe Paralysis

Ability Neurotech is developing a next-generation brain computer interface (BCI) to restore communication and motor control in patients with severe neurological conditions, including ALS, brainstem stroke, cortical stroke, and neurodegenerative diseases. The company originated at the Wyss Center for Bio and Neuroengineering in Geneva, where the founding team, led by Professor John Donoghue, spent seven years advancing the platform. More than $50M has been invested so far, and the program was spun out as an independent company in early 2024. Ability plans to begin its first in human clinical trial in Europe later this year, starting with ALS patients.

The platform's core innovation is its optical data transmission system, which the company positions as a breakthrough compared with radio frequency and Bluetooth based approaches. The implant captures and transmits raw neural data at bandwidths of about 50 mbps, which Ability reports is 25-50x greater than competing BCI systems. A laser based optical link sends neural signals from electrodes in the brain through the skull to an external wearable, allowing access to fuller, higher fidelity data that may support richer biomarkers and more advanced AI decoding models for restoring motor and communication function.

The hardware consists of a permanently implanted, batteryless device that sits flush with the skull, with electrodes directly interfacing with the cortex. The implant is under 5 mm thick and avoids the need for external pedestals, chest mounted components, or repeat surgeries for battery replacement. A magnetic external wearable receives the optical transmissions, creating what the company calls a window to the brain. This design aims to reduce invasiveness and aesthetic barriers, and improves comfort and long-term safety. Preclinical large animal studies have shown safety, implantability, and functional performance, supporting regulatory clearance to move into human testing.

Ability estimates that its first generation system will address a $1B market in ALS, brainstem stroke, and spinal cord injury, with a second generation expanding to cortical stroke and neurodegenerative diseases for a total potential market of $50B. Broader industry forecasts, including a recent Morgan Stanley report, project a $400B BCI opportunity in the United States. Ability has raised $7M in initial funding and is now pursuing a $40M Series A, with a lead investor already committed. With experienced leadership and first in human studies approaching, the company positions itself as one of the few globally advancing a complete, fully implantable BCI platform.

COMPASS DATA

Bayou surgical

Bayou Surgical

COMMERCIAL WITH REVENUE LESS THAN $5M

GENERAL SURGERY | OB/GYN

Year Founded	2018
Employees	7
Key Executive	Sharad Joshi sharad.joshi@bayousurgical.com
Raised to Date	$8,250,000
Currently Raising (2025)	$10,000,000
Commercial Status	Commercial with revenue LESS than $5M
Major Milestones	FDA Clearance 510(k) class II, First in man robotic procedures and laparoscopic procedures
Target Markets	General Surgery, OB/GYN
Location	United States
Company Website	bayousurgical.com

COMPASS INSIGHTS

Hands-Free Scope Cleaning System for Minimally Invasive Surgery

Bayou Surgical addresses a persistent challenge in minimally invasive surgery: surgeons frequently lose visibility when laparoscopes fog or become soiled with blood, fat, and tissue. This forces repeated scope removal, wiping, and reinsertion during roughly 17.2 million procedures annually, leaving surgeons “blind” 37% of the time in laparoscopy and 53% in robotics. These interruptions add $800–$900 in soft and hard costs per case. Bayou’s troCarWash is an FDA-cleared trocar with built-in, hands-free scope cleaning. Surgeons slightly retract the scope, a light sensor triggers, and a 0.3-second pulse of dry CO_2 with a proprietary surfactant and saline clears fog and debris without removing the scope or disengaging robotic instruments.

The system integrates seamlessly into standard workflows. It requires no add-on sheath, maintains current port sizes, and works with common scope dimensions. Sold on a razor/razor-blade model, it features a reusable control unit plus a single-use disposable trocar and tubing set. Bench and clinical studies across general surgery, thoracic, and OB-GYN procedures show rapid restoration of visibility, reduced scope exchanges, and improved safety when bleeding obscures the lens. Compared to alternatives that require scope removal or oversized ports, troCarWash cleans in place and preserves port size, lowering hernia risk. The company holds 24+ issued or pending patents and ensures compatibility with robotic and AI-assisted workflows.

Commercial strategy targets high-volume MIS centers with direct sales, supported by distributors in lower-density markets. Led by CEO Sherrod Joshi with 35 years of medtech experience, the team includes surgical innovators with multiple successful exits. U.S. rollout of the 10 mm device is underway, with a 5 mm version and robotic-specific variants in development. Early economics suggest that time savings and fewer scope exchanges can generate significant operating room efficiency and throughput improvements. Comparable sales, such as a competitor acquisition by Medtronic at approximately $115M, highlight the strategic value of the market.

Bayou is raising a $10M Series B to expand commercial adoption of the 10 mm device, launch the 5 mm line, develop robotic-specific SKUs, and continue IP development. With an FDA-cleared, workflow-preserving technology that addresses a costly and pervasive problem in minimally invasive surgery, Bayou Surgical is positioned to scale rapidly, improving surgical efficiency, patient safety, and hospital costs.

caira

Caira Surgical

PRE-CLINICAL (PRE-REVENUE)

ORTHOPEDIC

Year Founded	2019
Employees	8
Key Executive	Jon Greenwald jgreenwald@cairasurgical.com
Raised to Date	$15,300,000
Currently Raising (2025)	$10,000,000
Commercial Status	Pre-Clinical (Pre-Revenue)
Major Milestones	In 2H-24 the company reached an early evaluation agreement with a leading strategic
Target Markets	Orthopedic
Location	United States
Company Website	cairasurgical.com

Radar-Based Tracking for Joint Replacement

CAIRA Surgical is redefining orthopedic robotics by removing the long-standing barriers that have limited adoption. Although more than 3.5 million knee replacements are expected annually in the U.S. by 2030, only 17% use robotic assistance because today's optical tracking systems are costly, cumbersome, and dependent on invasive pins, extra incisions, and bulky line-of-sight cameras. CAIRA's mission is to make robotic-assisted surgery simpler, safer, and more cost-effective.

At the core of CAIRA's platform is radar-based tracking, a breakthrough alternative to optical systems. Compact radar "beacons" fit entirely within the incision, require only one bone screw, can be removed and replaced during surgery, and never lose calibration. A small touchscreen console with six radar sensors operates in the sterile field and eliminates line-of-sight issues, reducing workflow disruptions, improving ergonomics, and cutting capital and per-case costs by up to 75%.

The platform integrates radar tracking, AI-driven intraoperative planning, and rapid anatomical registration. A handheld scanner maps patient anatomy in 90 seconds, which is far faster than conventional probing, and clinical simulations show 11–25 minutes saved per procedure, translating to roughly $2,500 in OR savings. The system also reduces pin-site complications, avoids optical-tracking interruptions, and shortens the learning curve for new users.

CAIRA is initially targeting the $13B total knee replacement market before expanding into hip and spine. Its open architecture works with any implant system, unlike existing manufacturer-tied robots. A limited release is planned for 2026 with 23 surgeons across 13 centers, supported by a 510(k) pathway with multiple predicates and four granted patents. Backed by an experienced orthopedic leadership team, CAIRA is raising $10M in Series A funding to complete FDA clearance and launch the platform, positioning the company for strong commercial uptake and future strategic acquisition.

COMPASS DATA

deepSight™ TECHNOLOGY

DeepSight Technology

CLINICAL WITH REVENUE LESS THAN $5M

INTERVENTIONAL RADIOLOGY

Year Founded	2019
Employees	61
Key Executive	Diku Mandavia dmandavia@deepsight.com
Raised to Date	$60,000,000
Currently Raising (2025)	$50,000,000
Commercial Status	Clinical with revenue LESS than $5M
Major Milestones	FDA 510(k) clearance for the NeedleVue™ platform and first human scanning expected Q3 '2025
Target Markets	Interventional Radiology
Location	United States
Company Website	deepsight.com

COMPASS INSIGHTS

Smart Needle Ultrasound Guidance for Interventional Precision

DeepSight Technologies, led by Chief Medical Officer Dr. Diku Mandavia, is modernizing interventional medicine by reinventing one of its most basic tools: the needle. While minimally invasive procedures have advanced dramatically, needle design has barely changed for more than a century, creating persistent challenges for proceduralists who rely on precise, real-time visualization. DeepSight has developed a new class of intelligent instruments equipped with breakthrough ultrasound sensing technology that provides trajectory guidance, real-time tip tracking, and the first anatomical ultrasound view directly from the needle tip.

The company's proprietary 50-micron sensor is smaller than a human hair and represents a major leap in procedural imaging. It is inert, non-electrical, omnidirectional, and safe for use in high-heat or cryothermal environments. When integrated into a standard needle, the sensor projects a bright marker on the ultrasound screen, revealing the exact location of the needle tip in real time. Clinicians can now see both the needle pathway and surrounding anatomy simultaneously, greatly improving accuracy, safety, and confidence during complex interventions.

DeepSight's platform integrates advanced imaging, smart hardware, and AI-assisted software into a single system. The company offers its own ultrasound unit and a bolt-on solution compatible with more than 100,000 installed hospital systems in the United States. Its smart stylets and software suite enable guided navigation, workflow support, and remote oversight. DeepSight also plans partnerships with manufacturers of catheters, ablation tools, and implantable devices to create integrated, sensor-enabled procedural ecosystems. The company's intellectual property position includes more than 100 granted or pending patents and multiple exclusive licenses.

The addressable market spans ultrasound, interventional imaging, and the wider surgical instruments category. DeepSight will launch in abdominal biopsy and then expand into tumor and cardiac ablations, structural heart and vascular access procedures, spinal and pain interventions, and targeted drug delivery. Early physician feedback points to meaningful reductions in error rates, faster procedures, and broader access to advanced image-guided techniques. With its first OEM customer secured, FDA submission complete, and commercial launch planned for this year, DeepSight Technologies is positioned to set a new benchmark for precision and safety in interventional care.

COMPASS DATA

EBAMed
External Beam Ablation

EBAMed

CLINICAL (PRE-REVENUE)

CARDIOVASCULAR

Year Founded	2018
Employees	15
Key Executive	Marina Izzo marina.izzo@eba-med.com
Raised to Date	$21,000,000
Currently Raising (2025)	Undisclosed
Commercial Status	Clinical (Pre-Revenue)
Major Milestones	Design Freeze: the CardioKit is now ready for manufacturing preparation and regulatory testing
Target Markets	Cardiovascular
Location	Switzerland
Company Website	eba-med.com

COMPASS INSIGHTS

Non-Invasive Radiation Therapy for Cardiac Arrhythmias

EBAMed, based in Geneva, is developing a novel image-guided radiation therapy system to treat cardiac arrhythmias without invasive procedures. Its platform, CardioKit, is an add-on guidance system for radiotherapy devices that enables precise stereotactic radioablation of arrhythmic cardiac tissue. Using proprietary ultrasound imaging and artificial intelligence, the system synchronizes radiation delivery with both cardiac and respiratory motion. The technology aims to provide life-saving treatment for ventricular tachycardia patients who cannot undergo traditional catheter-based ablation, reducing procedural risk and expanding access.

Current ventricular tachycardia ablations are complex, risky, and lengthy. Catheter procedures carry roughly a 5% 30-day mortality rate and can produce suboptimal outcomes due to the heart's constant motion. EBAMed's non-invasive approach leverages existing radiotherapy equipment to deliver focused beams externally, shortening procedures from four to six hours to under one hour. By tracking cardiac and respiratory motion, CardioKit maintains target precision, overcoming a key limitation of standard stereotactic ablation methods.

Over the past 18 months, EBAMed has completed preclinical studies with Massachusetts General Hospital and the University of Pennsylvania, showing that dual gating reduces treated tissue volume by 37% while achieving full-thickness ventricular lesions. The AI algorithm has been validated using imaging data from 24 patients, supporting readiness for first-in-human trials. The company has completed design freeze and is initiating an initial clinical feasibility and safety study as part of a U.S. regulatory pathway, aiming for a pivotal study with primary endpoints by late 2026.

EBAMed holds a robust intellectual property portfolio, including a licensed Mayo Clinic patent for proton therapy applications and internally developed patents for motion tracking, echo-free imaging, and beam latency compensation. Led by CEO Marina Izzo, former head of electrophysiology at St. Jude Medical, the team combines expertise in cardiology, radiotherapy, and device regulation. With early clinical validation, academic collaboration, and regulatory readiness, EBAMed is positioned to redefine non-invasive cardiac ablation, making complex electrophysiologic interventions safer, faster, and more widely accessible.

Full Report Available For Purchase

You've Just Seen 5 Pages, *Get All 500+*

Access full profiles, funding data, milestones, markets, and analyst insights on every innovator in this report.

LSI | COMPASS

This is a sample. Contact the LSI team for access to the full report.