SECTOR UPDATE

2026. 3. 20

Innovation Team

Donghee Jeong
Analyst
donghee1009.jeong@samsung.com

▶ AT A GLANCE

Curiosis (494120 KQ, KRW68,200)
Target price n/a
Not Rated

Curiox BioSystems (445680 KQ, KRW131,700)
Target price n/a
Not Rated

Tomocube (475960 KQ, KRW54,800)
Target price n/a
Not Rated

IVIM Technology (460470 KQ, KRW3,750)
Target price n/a
Not Rated

Scan to go to
Research Center report database

Medical Devices (OVERWEIGHT)

Pearls in the lab: Research equipment players

- Research equipment manufacturers are beneficiaries of the trend toward domestic production of research instruments, the growth of laboratory automation, and the gradual phasing out of animal testing.
- We advise focusing on Curiox BioSystems in lab automation and Tomocube in bioimaging.

(§ The Korean version of this report was published on Mar 11, 2026; Some of the English versions of the attached company reports were published on Mar 18, 2026)

\WHAT'S THE STORY?

Korean research equipment advancing into global markets: The research equipment market has long been dominated by foreign companies. Over Mar 2025-Dec 2028, Korea's Ministry of Science and ICT is leading a national initiative to strengthen the technological competitiveness of domestically developed research equipment, with expected breakthroughs in optical systems, electronic imaging, compound analysis, and physical measurement technologies. While the US—the largest market—has seen a recent decline in health-related R&D budget, China has surpassed the US in total R&D spending (government and private-sector combined), reaching USD786b in 2024. Korean companies, equipped with strong price competitiveness and superior market access, are well-positioned to capitalize on this shifting global landscape.

Long-term beneficiaries of lab automation, animal testing phase-out: Automation in life sciences research is increasingly viewed as a necessity, driven by the need for faster drug development cycles, rising demand for high-throughput experimentation, growing emphasis on experimental reproducibility, and persistent labor shortages. However, comprehensive total lab automation systems—requiring initial investments of KRW1.5b-5.0b—remain financially out of reach for most small and medium-sized labs. As a result, attention is shifting toward task-targeted automation providers specializing in automating specific tasks such as sample sorting, liquid handling, pipetting, and data entry. Simultaneously, as global trends move toward the gradual elimination of animal testing, companies with expertise in live-cell and organoid imaging technologies are emerging as key beneficiaries.

(Continued on the next page)

Key investment highlights

- **Curiosis (494120 KQ):** Curiosis leverages its expertise in mechanical engineering to develop automated lab equipment, including live-cell imaging systems compatible with incubators and colony pickers. In addition to ODM partnerships with Revvity, it is building its own branded product line. It aims to reach breakeven in 2026 on full-year sales of KRW14b. Its core growth driver is a comprehensive contract with Revvity, enabling scalable product expansion across geographies and applications—a critical pathway to global market penetration.
- **Curiox BioSystems (445680 KQ):** Curiox BioSystems has developed automated cell analysis equipment and software designed to replace manual centrifugation-based workflows. Its core differentiator is software that integrates with existing third-party workstations, which eliminates the need for costly hardware upgrades. The company is actively collaborating with multiple global CROs and major pharmaceutical firms, and aims for software to account for more than 50% of total sales from this year. Enterprise-level adoption discussions with leading pharmaceutical clients have been underway since 2Q25.
- **Tomocube (475960 KQ):** With a dominant position in the global holotomography market, Tomocube supplies non-phototoxic, non-destructive optical imaging systems optimized for organoid imaging. As its modular design is compatible with automated equipment—unlike competitors' products—it is also generating sales in the display and semiconductor inspection sectors. The outcome of joint research with a major pharmaceutical partner is due in 3Q26, while full commercialization of wafer inspection equipment is targeted for 2H27.
- **IVIM Technology (460470 KQ):** IVIM Technology has developed a two-photon bioimaging microscope capable of observing live biological samples without fixation or staining—positioning the firm as a key beneficiary during the transitional phase of animal testing reduction. The company distributes its products in China through Revvity's global channel and is currently conducting demonstrations in the US and Europe, building a strong foundation for long-term revenue growth. It is also exploring margin-enhancing opportunities by offering CRO services to medium-sized biotech firms using its bioimaging platforms

Up-and-comers in the medical device sector

Pearls in the lab

Korean research equipment firms seeking opportunities in global arena

Laboratory equipment used in hospitals, pharmaceutical firms, and research institutes demands extreme precision and durability—and therefore has historically been dominated by global giants like Thermo Fisher and Beckman Coulter. However, as paradigm shifts occur in laboratories—driven by aged-equipment replacement, growing R&D activity in Asia, the phased elimination of animal testing, and increasing adoption of lab automation—new opportunities are emerging for Korean firms and other up-and-coming players. Now is the time to pay close attention to companies leveraging unique technological expertise and international partnerships to build robust distribution channels and expand into export markets.

Except for certain procedures highly popularized domestically, such as dentistry and dermatology, medical devices have traditionally been a conservative market, difficult for Korean companies to penetrate. Similarly, laboratory equipment has long been a domain dominated by powerful global players, making it challenging for Korean firms to enter. However, with the rapid growth of pharmaceutical and biotech R&D in Asia (including Korea, China, and Singapore), demand has emerged within the US- and Europe-centric research equipment market for greater localization and supply chain diversification. Leveraging technological capabilities and competitive pricing, Korean players have begun not only serving their domestic market but also exporting their equipment globally.

Market interest in biotech materials, parts, and equipment has taken root gradually, and since 2023, a new wave of momentum has emerged as firms such as Curiox BioSystems, IVIM Technology, Tomocube, and Curiosis—each built on proprietary tech—have drawn increasing partnership offers from major global research equipment manufacturers. Notably, for several of these firms, the path to profitability has become increasingly visible. Some have neared profitability, turning technological credibility into validated business models—making the turn to profitability a key investment catalyst.

Mordor Intelligence estimates the size of the research equipment and consumables market at USD37.8b in 2025 and projects that it will grow at a CAGR of 8% to reach USD59.9b in 2031. Consumables account for over 50% of this total, meaning the equipment market—classified as durable goods—is estimated at around USD18b. With most research institutions procuring equipment under annual budget constraints—excluding pharmaceutical firms and diagnostic centers that boast profitable operations—price competitiveness becomes pivotal once performance proves non-inferior.

Among Korean names, Curiosis and Curiox BioSystems stand to benefit from lab automation trends, while Tomocube and IVIM Technology are winning attention for their proprietary optical technologies amid the worldwide phased elimination of animal testing. In this report we give an overview of Revvity—the strategic partner connecting these Korean companies to the global market.

From orders to sales: Laboratory procurement process and timeline

Overseas laboratory equipment, regardless of type, is mostly priced at KRW100m+. In domestic research institutions, a separate budget review process is typically required for purchases exceeding KRW100m. Similarly, overseas institutions often require a separate written procurement contract for expenditures above USD100,000. Since the lead time from order placement to actual delivery generally ranges from 1.5 to 2 years, equipment that demonstrates non-inferior performance relative to competitors—and is priced below these thresholds (KRW100m/USD100,000)—is likely to experience significantly faster adoption. Conversely, vendors with truly differentiated technology can command premium pricing (*ie*, charging more than incumbent foreign offerings). For instance, Tomocube, which holds a near-monopoly in the niche field of holotomography (with no meaningful competitor outside Switzerland's Nanolive), can set the price of its main piece of equipment at KRW300m-400m and still have strong market competitiveness.

Government policy and budgetary environments are also critical. Korea's Ministry of Science and ICT is leading a national initiative to strengthen the technological competitiveness of domestically developed research equipment, with Phase 1 starting in Mar 2025 and running through Dec 2028, and Phase 2 running from Jan 2027 to Dec 2028. This program focuses primarily on two key domains: 1) optical/electronic imaging; and 2) compound/pretreatment analysis and physical measurement. Through joint research projects between academia and equipment makers, the initiative supports the development of innovative tech and the publication of high-impact SCIE-indexed papers, with each selected project receiving approximately KRW1.2b in annual funding. The government has allocated a total R&D budget of KRW35.3t for 2026 (up 21.4% y-y). Within this, the Ministry of Science and ICT has earmarked KRW5.9t for foundational technologies, public research institutes, and performance innovation, and KRW4.5t for supporting an R&D ecosystem centered on basic research. The Ministry of Health and Welfare has been allocated KRW1.1t. Combined, the total budget directly relevant to life sciences and medical research has grown 22% y-y to KRW11.5t. This creates a favorable environment for the development and adoption of new domestic research equipment in the coming years.

Looking overseas, the R&D budget landscape presents contrasting trends. In the US, following the pandemic, the share of federal R&D funding allocated to the National Institutes of Health (NIH) and related health agencies had stayed in the 40% range. However, under the second Trump administration, a dramatic budget cut of 42% y-y was implemented in 2026, reducing the total allocation to USD31b and lowering its share of the overall R&D budget to 32%, creating a challenging environment. In 2024, China's total annual R&D spending (*ie*, government and private-sector combined) reached USD786b, surpassing the US figure of USD782b—although detailed breakdowns by sub-sector are not publicly available. China represents the most attractive market for Korean equipment manufacturers, which hold competitive advantages in pricing and accessible maintenance. Currently, leading Korean research equipment companies such as Curiosis and IVIM Technology are supplying products in China

through partnerships with Revvity. Additionally, Curiox BioSystems has established an ODM partnership with Revvity's manufacturing facility in Hong Kong.

Procurement based on specific price point (USD100,000)

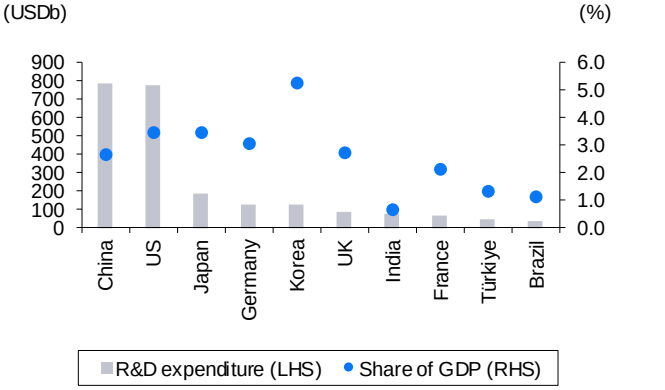
5. Summary of Documentation Requirements

The table below is a summary and visual representation of the documentation requirements outlined in this procedure.

Documentation Requirement	Goods < $10,000	Goods ≥ $10,000, but < $100,000	Goods ≥ $100,000
Purchase Order (to include goods description, quantity, price, shipping/delivery terms)	x	x	x
Written Purchase Contract signed by the authorized University representative		Only if directed by Procurement	x
Form 3201 FR.05 *Pricing Documentation (Comparative Pricing & Competitive Bidding)* **OR** Form 3201 FR.06 *Sole Source Documentation*		x	x
Certificate of Insurance		Consult with Office of Enterprise Risk Management	x

Source: Yale University

Major countries' R&D spend: Absolute and in ratio to GDP (2024)

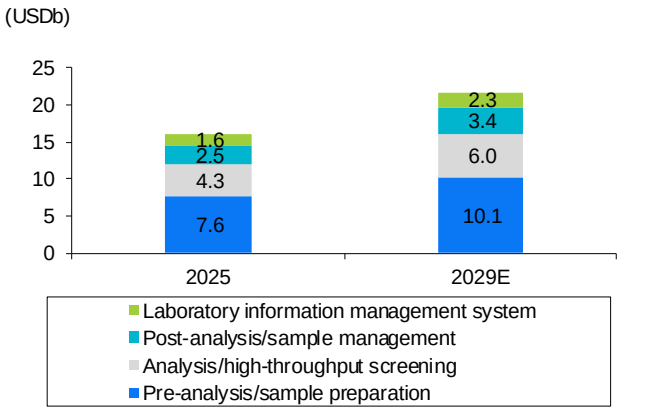


Note: Adjusted based on 2025 USD, PPP
Source: WIPO, Samsung Securities

Ultimately, the automation wave is also reaching laboratories

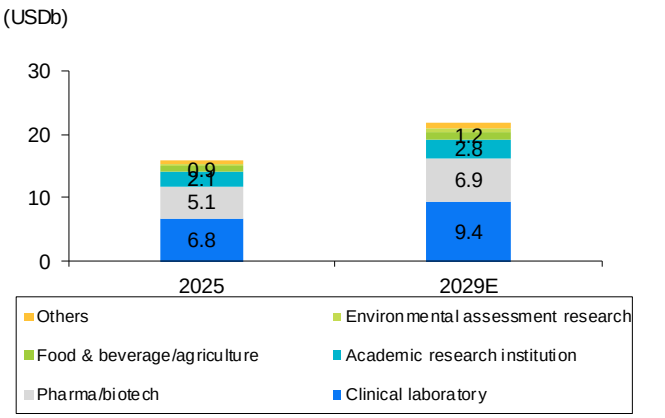
Most life science research laboratories rely on manual work performed by trained personnel with at least a certain level of academic qualification, given the need to preserve sample stability and the high degree of technical expertise required for experiments. However, as competition intensifies around the ultimate goal of commercialization, companies have increasingly pursued automation and digitalization in research facilities, motivated by: 1) the need to shorten development timelines for new drugs and advanced materials; 2) the need to conduct multiple high-throughput experiments while ensuring experimental reproducibility; and 3) the growing labor shortage, particularly in advanced economies, driven by population aging.

Global: Lab automation market outlook



Source: BCC Research(2022)

Lab automation market segmentation



Source: BCC Research(2022)

Currently, the most widely adopted form of lab automation involves robots performing simple, repetitive tasks. However, rapid advancements in AI have prompted the emergence of "smart labs" (where AI and data are seamlessly integrated) and "self-driving labs" (in which AI autonomously generates hypotheses and conducts experiments). Underpinning these developments is the concurrent advancement of: 1) hardware tailored for each task; and 2) software technologies that analyze data collected from individual items of equipment and seamlessly integrate them into workflow—such as Electronic Lab Notebook (ELB) and Laboratory Information Management System (LIMS). Meanwhile, automated equipment is now available for nearly every individual experimental step, as outlined below.

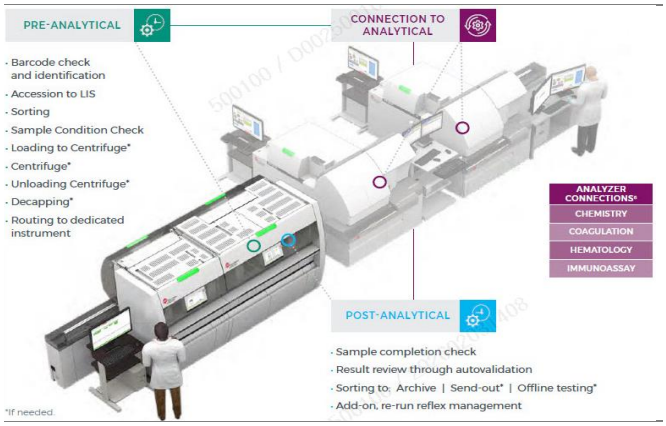
Cell culture-based task workflow

Process step	Major piece of equipment	Role	Major companies
1) Sample preparation	Liquid handler	Precise dispensing, dilution, and plate transfer of samples/reagents	Hamilton, Tecan, Beckman Coulter
	Centrifuge	Component separation and precipitation using centrifugal force (for automation)	Thermo Fisher, Beckman Coulter
2) Cell manipulation	Electroporation equipment	Injection of genes/drugs into cells via electrical stimulation	Thermo Fisher, Lonza
	Colony picker	Automatic selection of optimal individuals among thousands of strains	Molecular Devices
3) Culture /reaction	Incubator	Mass culture automation controlling temperature/humidity/CO_2	Thermo Fisher, LiCONiC
4) Component separation	HPLC/UHPLC	Separation of individual components in mixed samples using high pressure	Agilent, Waters, Shimadzu
5) Data measurement	Microplate reader	Quantitative analysis via absorbance, fluorescence, and luminescence measurement	Molecular Devices, BioTek (Agilent)
	Flow cytometer	Optical property analysis and automatic separation of individual cells	BD Biosciences, Beckman Coulter
6) Precision analysis	NGS sequencer	High-speed decoding of DNA/RNA sequence information	Illumina, PacBio, Oxford Nanopore
	LC-MS	Substance identification through mass spectrometry after component separation	Waters, Agilent, Thermo Fisher
7) Connection & control	Robotic arm/software	Sample transfer between equipment and overall process scheduling	Precise Automation, Mitsubishi

Source: Samsung Securities

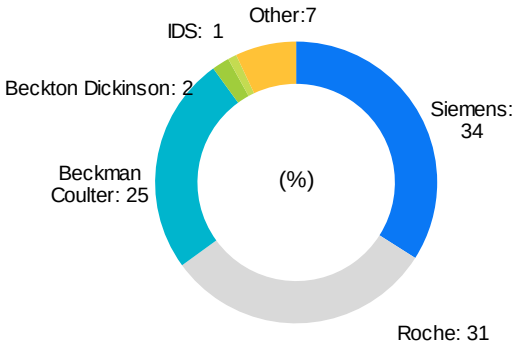
Global giants such as Siemens, Roche, and Beckman Coulter dominate the market for total laboratory automation (TLA) systems, which integrate automated equipment across all stages. However, as such systems are difficult to implement for labs that are not large, there is also significant demand for task-targeted automation (TTA) solutions—individual automated devices designed for specific tasks.

TLA system integration:
From pretreatment to analytical data entry



Source: Roche

Global TLA system market shares (2023)



Source: Youngwon Nam et al: *Revolutionizing Laboratory Practices: Pioneering Trends in Total Laboratory Automation* (2025), Samsung Securities

Curiosis has developed a comprehensive portfolio of automated equipment designed to streamline key cell-based laboratory workflows. Its core product is an automated live-cell imaging system, which enables real-time observation of cell culture processes inside incubators. It followed this up with a colonial picker system that automates the highly labor-intensive colony-picking task; a digital pathology scanner; and an automated cell concentration and separation system. Among these, its automated live-cell imaging system is poised to gain notable market share thanks to its energy-efficient design. Unlike third-generation systems (*eg*, Sartorius' IncuCyte, which are enclosed, generate a lot of heat, and pose a significant risk of condensation, which disrupts culture conditions), the system operates at low power consumption, minimizing thermal disturbance, and maintaining stable culture environments.

Curiox BioSystems' Pluto Wash technology automates the manual cell-washing step traditionally performed via centrifugation, delivering cell viability (70-90%) and reproducibility comparable to traditional methods—while cutting down on labor-intensive, repetitive tasks and boosting workflow efficiency. Central to this capability is Pluto Code, a software solution that runs directly on leading liquid-handling platforms from Beckman Coulter, Agilent, Tecan, and Hamilton Robotics. This allows Curiox to pursue a dual business model: selling its own equipment and licensing software to customers with legacy systems.

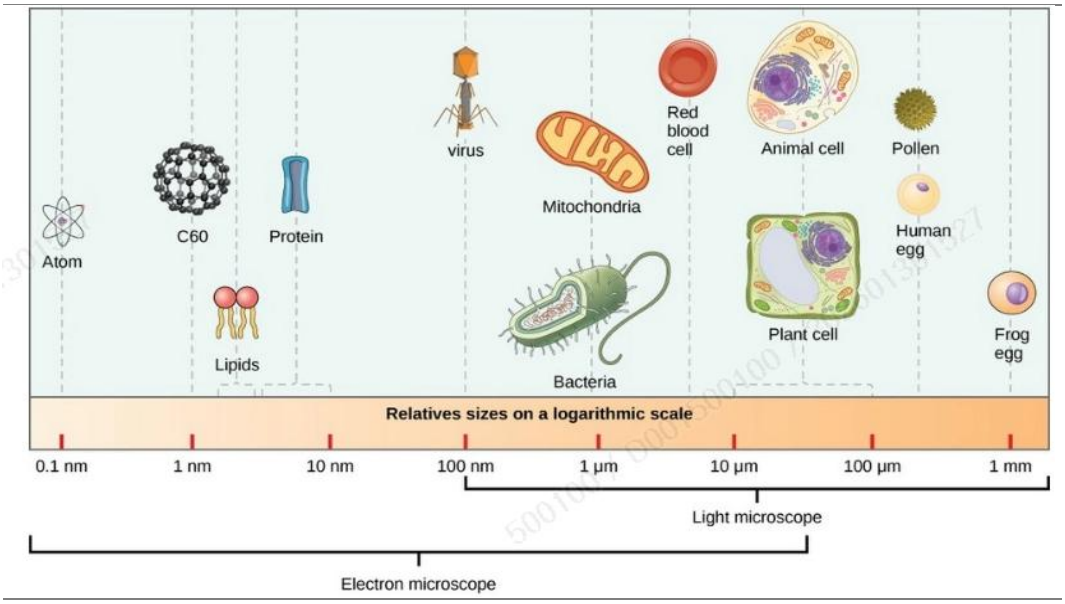
While lab automation has become an essential direction in the life sciences field, challenges remain—particularly due to poor interoperability between devices, which leads to fragmented data and makes it difficult to integrate entire experimental workflows into a unified system. Additionally, for small- and medium-sized labs, the cost burden of automation remains significant—*eg*, comprehensive TLA systems typically require initial investments of KRW1.5b-5.0b. Moreover, many researchers are still accustomed to manual methods, necessitating a cultural and perceptual shift toward adopting automated solutions. A further emerging concern is data security, as the digitalization of laboratory equipment introduces new vulnerabilities around data integrity and protection.

Ultimately, the push towards end-to-end laboratory automation should transpire over the medium-to-long term and be driven primarily by industry players. However, this transformation requires changes in overall operational workflows. As a result, demand should grow first in the most labor-intensive and error-prone stages of experimentation—particularly in preprocessing steps such as sample sorting, liquid handling, pipetting, and post-analysis data entry. Companies like Curiox BioSystems (specializing in live-cell analysis automation) and Curiosis (enabling real-time cell observation and colony picking during culture) offer targeted automation solutions aligned with these high-demand tasks, positioning them to benefit from structural growth in demand.

'I See You'—The microscope: The beginning and end of all work

Since its invention in the 1600s, the microscope has unlocked the invisible microscopic world to the naked eye, laying the foundational framework for all modern life sciences. The very word "cell" originates from Robert Hooke's observation of cork under a microscope, where he noted regularly arranged structures resembling small rooms (*cellulae* in Latin). Today, microscopes are broadly categorized by their light source into three main types: 1) optical microscopes; 2) electron microscopes; and 3) atomic force microscopes. Given the critical need to minimize damage to delicate biological samples, optical microscopes, which utilize visible light, remain the dominant tool in biological imaging.

History of microscope development capable of observing everything from frog eggs to a single atom



Source: opentextbc.ca

Optical microscopes primarily utilize visible light (wavelengths of 400-700 nm) as their light source. While they can also be adapted to use ultraviolet, near-infrared, or infrared light, the vast majority of applications rely on the visible spectrum. A key advantage is their intuitive nature: since samples are observed directly by the human eye, interpretation is immediate. Additionally, many optical microscopy techniques allow real-time observation without requiring complex sample preparation. However, they are susceptible to light scattering, and image quality can vary significantly depending on the use of fluorescent dyes, nanoparticles, or quantum dot labels.

Electron microscopes employ electron beams—whose wavelengths are far shorter than visible light—to achieve high resolution without loss of detail at high magnifications. When electrons interact with a sample, they generate various signals (*eg*, secondary electrons, backscattered electrons, emitted photons), enabling detailed analysis of elemental composition, surface properties, and atomic number. However, electron microscopes require operation under high vacuum conditions, produce only grayscale images (since they do not rely on visible light), and are significantly more expensive than optical systems. A landmark example is the scanning tunneling microscope (STM), the first microscope to make quantum mechanical phenomena directly observable—earning its creator the Nobel Prize in Physics.

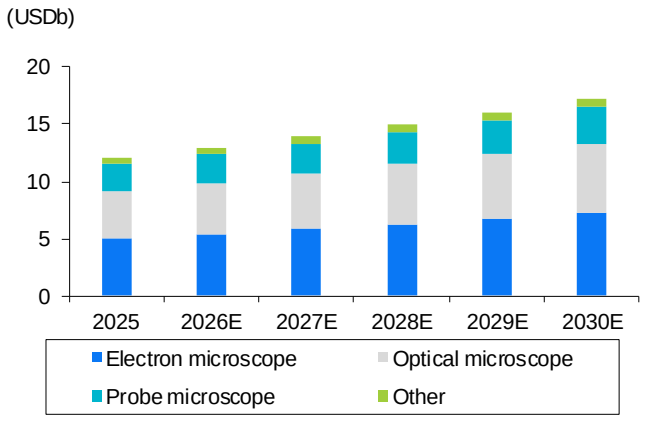
Atomic force microscopy (AFM) was developed to overcome the limitations of electron microscopes—particularly the need for conductive samples and metal coating. AFM measures the forces (attractive and repulsive) between atoms of a sharp, non-conductive probe tip and the surface atoms of a sample to generate topographical images. Unlike electron microscopes, which typically provide only 2D surface images, AFM can accurately measure height variations to reconstruct true 3D surface topography. Crucially, AFM can operate not only in vacuum but also in ambient air and even in liquid environments.

Major microscope classification

Classification	Optical microscope (OM)	Electron microscope (SEM/TEM)	Atomic force microscope (AFM)
Light source	Visible light	Electron beam	Physical probe
Observation wavelength	Approx 400-700 nm	Approx 0.005 nm	n/a
Pros	Real-time live cell observation; in color; easy to use	Ultra-high magnification/ Resolution; wide depth of focus	Atomic-level vertical resolution; 3D shape measurement
Cons	Resolution limit (approx 200 nm)—*ie*, low magnification	Sample coating/vacuum required, live cell observation impossible	Slow scan speed, very narrow observation area
Application field	Biology (cells), medicine, metal structure, education	Semiconductor circuits, nanomaterials, virus research	Surface roughness analysis of new materials, characterization of nano devices
Price range	Millions to tens of millions of won	Hundreds of millions to billions of won	Tens of millions to billions of won
Major companies	Nikon, Olympus, Leica, Carl Zeiss	Hitachi, JEOL, Thermo Fisher	Park Systems, Bruker

Source: Samsung Securities

Global microscope market size and outlook

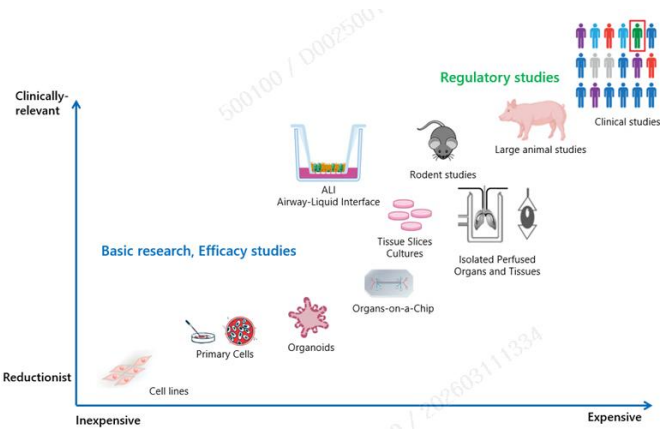


Source: Grand View Research, Samsung Securities

In Korea, leading publicly traded companies in the field of bio-imaging—IVIM Technology and Tomocube—have each developed advanced instruments based on optical microscopy: a two-photon microscope and holotomography systems, respectively. Meanwhile, industrial-grade microscopes typically involve electron microscopes (*eg*, Coxem) or atomic force microscopes (*eg*, Park Systems).

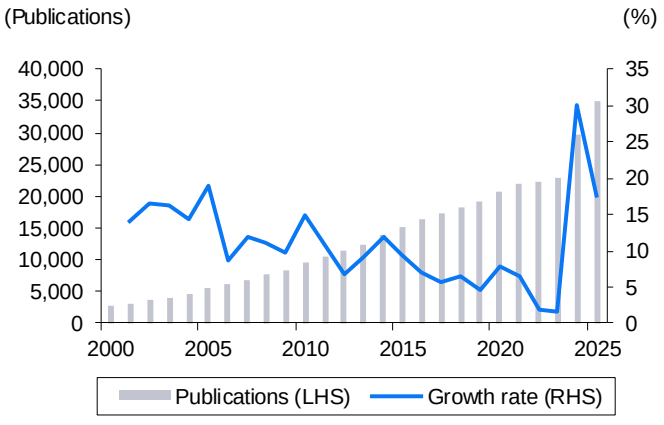
Regulatory agencies around the world—including the US FDA—have begun phasing out animal-based preclinical studies. As a result, there is gradually growing demand for live-cell imaging systems capable of non-invasively observing living specimens in real time, or for imaging organoids (artificially cultured human tissue models) without causing damage. While non-animal methods (NAMs) that can replace traditional animal testing are poised to benefit significantly over the longer term, it should take five years or more to generate datasets that match the depth, reliability, and statistical power of the nearly 100 years of accumulated animal experiment data and achieve regulatory acceptance.

Need for balance between cost and clinical significance when selecting experimental subjects



Source: scireq.com, Samsung Securities

Academic publications on non-animal methods



Source: PubMed, Samsung Securities

IVIM Technology's two-photon microscope utilizes ultrafast pulsed lasers as its light source to induce nonlinear optical effects for image acquisition. Compared to confocal microscopes, it offers the significant advantage of enabling high-quality 3D imaging of thick tissues (500-1000 μm) and is particularly well-suited for *in vivo* imaging in living animals.

Additionally, as the light is delivered in extremely short pulses, the system can achieve high peak intensity with low overall energy (since energy = power × time). This minimizes unintended fluorescence emission outside the focal plane, eliminating the need for a pinhole—a key design advantage over confocal microscopy.

Holotomography is a technique that combines holography with computed tomography (CT) principles to measure the refractive index distribution of cells, without the need for chemical staining or fluorescent labeling. Using inverse reconstruction algorithms, it generates high-fidelity 3D models of cellular structures. Tomocube's system has advanced this technology by incorporating a low-coherence LED light source and a multi-lens array integrated with a digital micromirror device (DMD), significantly reducing noise and mechanical vibrations to achieve a transmission depth of over 150 micrometers. Conventional holographic tomography systems lack a DMD and therefore require physical rotation of the sample through 360 degrees—similar to traditional CT—to reconstruct 3D images, resulting in bulky, mechanically complex setups. Tomocube's system, however, can reconstruct the full 3D structure from fixed illumination angles alone. This compact, motion-free design not only enhances usability in biological research but also opens applications in automated inspection processes for the display and semiconductor industries.

Revvity: A strategic partner driving innovation in life sciences and diagnostics

Revvity is a company spun off from PerkinElmer in 2023. Whereas PerkinElmer was engaged in semiconductor, defense, life sciences, and food testing operations, Revvity focuses exclusively on the life sciences and diagnostics sectors. It was one of the two entities created when PerkinElmer divested its businesses—the other being the privately held PerkinElmer. Revvity is the larger of the two entities. Post-spinoff, it has emphasized the need to broaden its product portfolio to aggressively expand its footprint. To that end, it is distributing various, competitive pieces of equipment at SMEs via its global sales and distribution network.

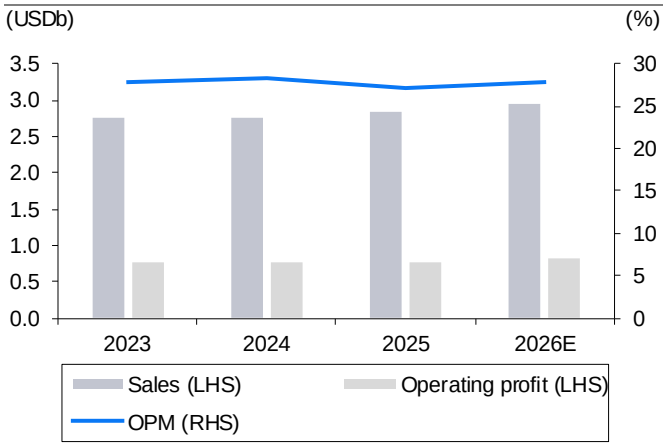
In its core life sciences and diagnostics business, Revvity has outlined four key long-term growth drivers: 1) the global equipment demand recovery, which began to materialize in late 2025; 2) explosive growth in reproductive health sales, particularly neonatal screening; 3) increasing US immunoassay market share—from 20% currently to a target of 40%; and 4) double-digit revenue growth in diagnostics markets outside of China. Beyond these, Revvity is accelerating innovation through strategic partnerships: it has introduced its AI-powered drug discovery platform, Xynthetica, to pharmaceutical clients, and it is building omics (molecular-level biological analysis) partnerships with pharmaceutical companies and government agencies. These initiatives support Revvity's target of 3-5% organic revenue growth in 2026, with a longer-term aspiration to outpace the market average by achieving 6-8% annual organic growth. 4Q25 results showed no signs of accelerated equipment purchases driven by year-end budget spending, but the firm posted modest single-digit growth primarily led by seasonality and large pharmaceutical customers. Management said it expects a meaningful recovery in broader market demand toward 2H26.

Revvity's business model is highly stable, with around 85% of total revenue derived from recurring sources such as consumables and services. The company maintains extensive distribution and OEM partnerships across key countries and regions, including the US, China, and Europe. In Apr 2024, Revvity entered into a comprehensive business agreement with Curiosis. As part of this partnership, a

it signed a three-year supply agreement for Curiosis' live-cell imaging systems, with three units delivered in 2025. In Jan 2026, Revvity also announced a three-year, KRW2.2b ODM contract for Curiosis' colony pickers—indicating clear potential for incremental volume growth. IVIM Technology is leveraging Revvity's global distribution channel to bring its two-photon bioimaging microscopes into the Chinese market. Following the recognition of revenue from the first unit in late 2025, IVIM Technology anticipates additional revenue recognition in 1H26 as further equipment deliveries are completed.

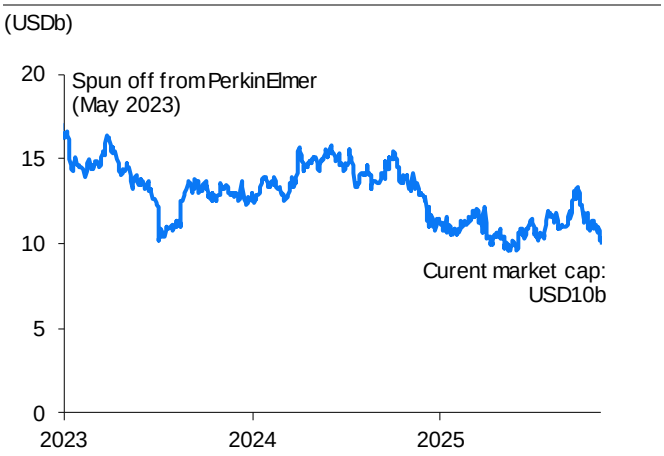
Curiox BioSystems has outsourced the manufacturing of its PlutoHT workstation—equipped with its proprietary Pluto Wash technology—to Revvity. While Revvity produces the units at its Hong Kong facility (monthly capacity: 700 units), they are branded under Curiox's name. Currently, Curiox's primary focus is on promoting the Pluto Wash software module for integration into third-party workstations. However, from 2028, Curiox aims to shift toward equipment-centric revenue growth. Given Revvity's robust manufacturing capacity, it is positioned to become a critical long-term growth partner for the Korean firm.

Revvity: Sales and operating profit



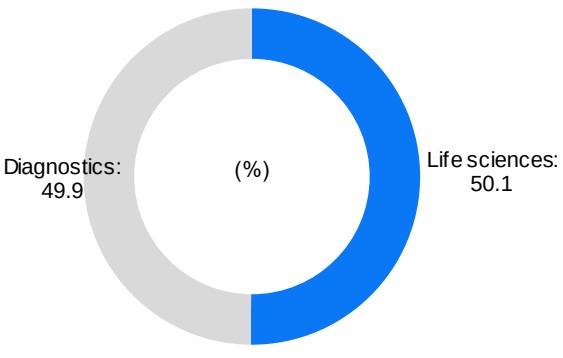
Source: Bloomberg, Samsung Securities

Revvity: Market cap



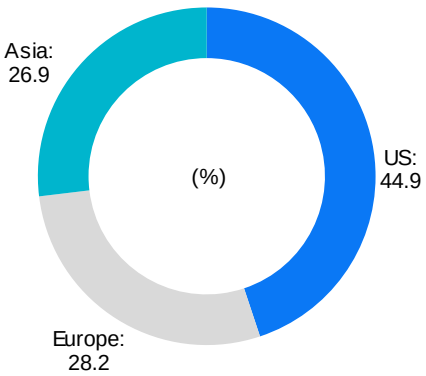
Source: Bloomberg, Samsung Securities

Revvity: Sales, by product type (1Q-3Q25)



Source: Bloomberg, Samsung Securities

Revvity: Sales, by region (1Q-3Q25)



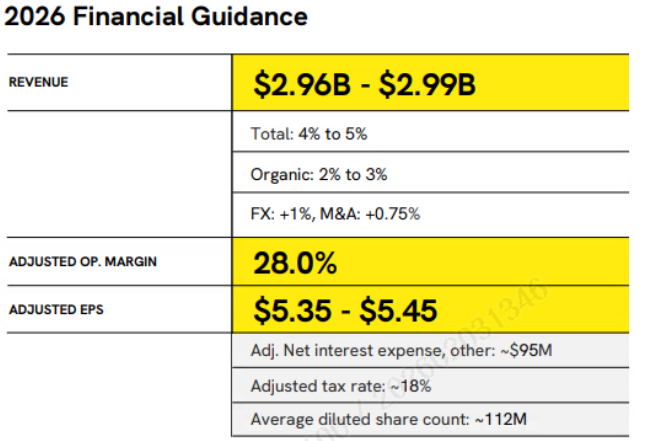
Source: Bloomberg, Samsung Securities

Revvity: Partnerships with Korean companies

Partner	Details	Notes
Curiosis	Signed technology development MOU in Apr 2024: R&D collaboration for next-generation lab automation and synthetic biology automation	Major collaboration equipment: Automated live cell imaging equipment; colony picker
Curiox BioSystems	Signed OEM manufacturing contract for Pluto workstation	Hong Kong factory production capacity 700 units/month (distributed under Curiox brand)
IVIM Technology	Signed exclusive OEM distribution contract for intravital microscope (IVM) in China with Revvity Biomed China in Nov 2024	Contract expires Dec 31, 2027; first revenue recognition in late 2025; additional revenue expected in 1H26

Source: Samsung Securities

Revvity: 2026 guidance—Gradual growth centered on equipment and reagents



Source: Company data

Technological prowess and perseverance: Two key pillars of resilience

Since 2023, research equipment manufacturers have emerged as key outperformers in the medical device sector, attracting a new wave of investors. While these companies invest heavily in R&D, their products—characterized by long sales and distribution cycles—have faced significant challenges in achieving profitability in the near term. Yet, much like how global incumbents dominated the market for decades, today's innovators are steadily building deep technological moats by locking in core customers (namely, research institutions and pharmaceutical companies), and their long-term efforts are beginning to pay off visibly. As foundational R&D capabilities in the West gradually expand into Japan, China, Korea, and broader Asian markets, demand is rising for next-generation equipment and tailored services aligned with these evolving ecosystems. This shift presents growing opportunities for Korean companies, which possess strong state-supported manufacturing capabilities.

Given the difficulty for individual firms to achieve global commercialization alone, a pragmatic pathway involves partnering with large players such as Revvity—companies with strong incentives to expand their geographic footprint and product portfolios. By first securing references in neighboring markets and then gradually extending into legacy-dominated regions such as the US and Europe, Korean firms can build credibility and scale. During this process, major distribution agreements and potential M&A events should serve as critical catalysts for share-price appreciation.

Korean research equipment firms: Major contract disclosures

Date	Company	Partner	Details	Deal size (KRWm)
Dec 2024	Tomocube	ELP	Non-bio industrial HT module supply contract (Dec 2024-Dec 2026)	Unknown
Dec 2024	IVIM Technology	Scintica Instrumentation	Intravital microscope supply contract (Dec 2024)	840
Jan 2025	Tomocube	Revvity	Joint development of holotomography and AI-based organoid analysis (Apr 2025-Sep 2026)	Unknown
Apr 2025	Curiox BioSystems	IMU Biosciences (UK)	Automated cell analysis device (Apr-Jun 2025)	810
Apr 2025	IVIM Technology	KAIST	Intravital microscope supply contract (Apr-May 2025)	450
May 2025	IVIM Technology	OncoMed Solutions (Germany)	Intravital microscope supply (May-Dec 2025)	370
Aug 2025	IVIM Technology	IBS	Intravital microscope supply contract (Aug-Oct 2025)	450
Sep 2025	IVIM Technology	Revvity (Hong Kong)	Intravital microscope supply contract (Sep-Nov 2025)	460
Oct 2025	IVIM Technology	Neuroscience (Japan)	Intravital microscope supply contract (Oct-Dec 2025)	470
Dec 2025	Curiosis	Pohang Technopark	Purchase of automated antibody drug discovery system (Dec 2025-Mar 2026)	2,080
Jan 2026	Curiosis	Revvity Biomed (Shanghai)	Colony picker ODM contract (Jan 2026-Jan 2029)	2,180
Feb 2026	IVIM Technology	Revvity (Hong Kong)	Intravital microscope supply contract (Dec 2025-Mar 2026)	540
Feb 2026	IVIM Technology	Paralab SA (Spain)	Intravital microscope supply contract (Feb-May 2026)	530

Source: DART, Samsung Securities

Global research equipment firms: Major M&As

Date	Acquirer	Target	Business area	Acquisition size (USDm)
Jul 2016	Sartorius Stedim Biotech	kSep Systems	Single-use centrifuge downstream equipment	28
Apr 2015	Sartorius	BioOutsource	Bioprocess testing service (CRO nature)	N/A
May 2016	Thermo Fisher	FEI Company	Electron microscope analysis equipment (EM)	4,200
Jun 2016	Sartorius	IntelliCyt	Flow-based screening bio-analytics	90
Jul 2016	Sartorius	ViroCyt	Virus quantitative analysis (bio-analytics)	16
Apr 2017	Sartorius	Essen BioScience	Live cell imaging analysis (bio-analytics)	320
Jun 2017	PerkinElmer	EuroImmun	Newborn screening diagnosis	1,300
May 2018	PerkinElmer	Shanghai Spectrum Instruments	Life science analysis equipment	20
Jan 2019	Beckman Coulter	Labcyte	Acoustic (ADF) based liquid handling automation	310
Jun 2019	Beckman Coulter	Cytobank	Single cell data analysis SaaS	N/A
Apr 2020	Sartorius	Danaher Life Science selected assets	Chromatography TFF, molecular characterization, *etc.*	830
Nov 2020	Sartorius	BIA Separations	Chromatography purification (especially advanced therapies)	360
Jun 2021	PerkinElmer	Nexcelom	Cell counting/imaging, bioscience analysis equipment	260
Jan 2022	Sartorius	ALS Automated Lab Solutions (Majority stake)	Cell line development automation / cell isolation and selection	n/a

Source: Samsung Securities

Global research equipment peers: Valuations

(USDm)		Thermo Fisher Scientific	Danaher	Merck KGaA	Agilent	Waters
Country		US	US	Germany	US	US
Share price (USD)		500	195	129	115	300
Market cap		185,772	138,048	56,011	32,621	29,394
Revenue	2024	42,879	23,875	22,886	6,510	2,958
	2025	44,556	24,568	23,854	6,948	3,165
	2026E	46,823	25,625	24,355	7,379	6,410
Operating profit	2024	9,707	6,840	3,943	1,721	916
	2025	10,109	6,939	4,071	1,783	964
	2026E	10,845	7,423	4,450	1,953	1,805
EBITDA	2024	10,863	7,561	6,569	1,876	1,061
	2025	11,159	7,689	6,906	2,044	1,171
	2026E	12,011	8,205	6,868	2,168	1,967
Net income	2024	6,335	3,899	3,004	1,289	638
(controlling)	2025	n/a	3,600	2,948	1,303	643
	2026E	7,398	4,807	3,185	1,517	1,149
EPS (USD)	2024	16.5	5.3	6.9	4.4	10.7
	2025	17.7	5.0	6.8	4.6	10.8
	2026E	20.7	6.9	7.4	5.3	12.6
Revenue growth	2025	3.9	2.9	4.2	6.7	7.0
Chg (% y-y)	2026E	5.1	4.3	2.1	6.2	102.5
Operating profit growth	2025	4.1	1.4	3.2	3.6	5.2
Chg (% y-y)	2026E	7.3	7.0	9.3	9.5	87.2
Net income growth	2025	n/a	(7.7)	(1.9)	1.1	0.8
(controlling) Chg (% y-y)	2026E	n/a	33.5	8.0	16.4	78.7
Operating	2025	22.7	28.2	17.1	25.7	30.5
margin (%)	2026E	23.2	29.0	18.3	26.5	28.2
Net margin	2025	n/a!	14.7	12.4	18.8	20.3
(controlling) (%)	2026E	15.8	18.8	13.1	20.6	17.9
P/E (x)	2024	29.8	40.6	21.9	27.6	33.6
	2025	30.6	38.8	18.5	n/a	30.8
	2026E	20.3	23.2	14.0	19.3	20.8
P/B (x)	2024	4.0	3.3	2.0	6.1	12.0
	2025	4.1	3.1	1.7	n/a	8.8
	2026E	3.3	2.5	1.5	4.2	3.2
EV/EBITDA (x)	2024	20.9	24.2	12.8	23.9	22.1
	2025	22.8	23.9	11.9	n/a	23.3
	2026E	17.9	18.5	9.7	15.8	15.4
ROE (%)	2024	13.2	7.6	9.8	20.6	42.8
	2025	13.0	7.1	8.9	n/a	29.3
	2026E	16.2	10.6	10.1	22.8	19.9
Absolute return (%)	1 week	(1.6)	(4.3)	(8.5)	(3.0)	(4.0)
	1 month	(7.4)	(11.2)	(11.4)	(10.5)	(8.4)
	3 months	(12.8)	(15.3)	(6.8)	(19.5)	(24.3)
	6 months	4.9	1.4	2.9	(7.0)	2.3
	1 year	(5.1)	(4.9)	(17.3)	(5.3)	(23.2)
	YTD	(13.7)	(14.7)	(9.5)	(15.2)	(21.1)

Note: As of Mar 10, 2026
Source: Bloomberg, Samsung Securities

Global research equipment peers: Valuations

(USDm)		Mettler-Toledo	Sartorius Ag	Revvity	Bio-Rad	Bruker
Country		US	US	US	US	US
Share price (USD)		1,232	256	90	268	37
Market cap		25,035	17,119	10,096	7,234	5,571
Revenue	2024	3,872	3,657	2,756	2,567	3,366
	2025	4,026	4,000	2,856	2,583	3,437
	2026E	4,228	4,390	2,980	2,621	3,581
Operating profit	2024	1,200	425	779	331	518
	2025	1,193	613	773	312	433
	2026E	1,248	832	832	320	541
EBITDA	2024	1,250	1,023	848	480	603
	2025	1,319	1,189	843	453	653
	2026E	1,320	1,329	915	455	667
Net income	2024	863	91	270	-1,844	113
(controlling)	2025	869	175	241	760	-9
	2026E	919	310	329	257	92
EPS (USD)	2024	40.5	1.3	2.2	(65.4)	0.8
	2025	42.1	2.5	2.1	27.9	(0.2)
	2026E	45.8	4.5	2.7	9.7	(0.1)
Revenue growth	2025	4.0	9.4	3.6	0.7	2.1
Chg (% y-y)	2026E	5.0	9.8	4.3	1.5	4.2
Operating profit growth	2025	(0.6)	44.4	(0.8)	(5.9)	(16.4)
Chg (% y-y)	2026E	4.6	35.7	7.6	2.6	24.9
Net income growth	2025	0.7	92.7	(10.8)	(141.2)	(107.6)
(controlling) Chg (% y-y)	2026E	5.7	77.0	36.5	(66.2)	(1,169.0)
Operating	2025	29.6	15.3	27.1	12.1	12.6
margin (%)	2026E	29.5	19.0	27.9	12.2	15.1
Net margin	2025	21.6	4.4	8.4	29.4	(0.3)
(controlling) (%)	2026E	21.7	7.1	11.1	9.8	2.6
P/E (x)	2024	29.8	142.5	36.0	33.8	31.7
	2025	29.2	85.3	32.8	32.8	38.3
	2026E	26.5	39.8	16.7	26.2	17.3
P/B (x)	2024	n/a	4.7	1.5	1.4	5.0
	2025	n/a	4.9	1.4	1.1	4.1
	2026E	674.9	4.0	1.3	1.0	1.9
EV/EBITDA (x)	2024	21.8	22.2	16.4	18.2	22.9
	2025	24.9	18.0	17.5	28.7	28.4
	2026E	20.5	17.3	13.5	15.2	11.8
ROE (%)	2024	n/a	3.5	3.2	(24.1)	7.2
	2025	n/a	5.7	3.2	10.8	(0.4)
	2026E	3,115.8	11.3	8.2	3.2	12.8
Absolute return (%)	1 week	(6.5)	(2.2)	(5.9)	(4.4)	(6.8)
	1 month	(12.0)	(0.6)	(13.8)	(10.7)	(12.0)
	3 months	(12.4)	(10.6)	(12.8)	(15.0)	(22.0)
	6 months	(1.7)	14.4	9.5	(3.3)	20.0
	1 year	(4.8)	(3.2)	(23.6)	8.1	(22.8)
	YTD	(11.7)	(10.7)	(6.7)	(11.6)	(22.3)

Note: As of Mar 10, 2026
Source: Bloomberg, Samsung Securities

COMPANY UPDATE

2026. 3. 18

Scan to go to
Research Center report database

Curiosis (494120)

A clear beneficiary of global lab automation

- Curiosis provides live-cell imaging systems and automated colony pickers—mission-critical laboratory automation equipment—to leading global clients under an ODM arrangement.
- Leveraging continuous product innovation and strong price competitiveness, the company is gaining momentum in expanding its product portfolio and geographic footprint.

Innovation Team

Donghee Jeong
Analyst
donghee1009.jeong@samsung.com

AT A GLANCE

Not rated

Target price	n/a
Current price	**KRW70,500**
Market Cap	KRW536.96b/USD359.51m
Shares (float)	7,616,482 (71.5%)
52-week high/low	KRW88,000/KRW43,000
Avg daily trading value (60-day)	KRW17.0b/ USD11.4m

ONE-YEAR PERFORMANCE

	1M	6M	12M
Curiosis Inc. (%)	-12.3	0.0	0.0
Vs Kosdaq (%pts)	-14.7	0.0	0.0

SAMSUNG vs THE STREET

No of estimates	n/a
Target price	n/a
Recommendation	n/a

※ Rating: 4 < → BUY, 3 = HOLD, 2 > → SELL

WHAT'S THE STORY?

A robust bridge to laboratory automation: Founded in 2015 by a mechanical engineering graduate from Seoul National University, Curiosis went public on the Kosdaq in Nov 2025. The company specializes in developing and manufacturing core components for laboratory automation, supplying which it supplies directly to customers or commercializes as finished products under its own brand or via ODM partnerships. Its core technological strength lies in precision motion systems that minimize physical damage during cell observation and extraction. Its flagship product, the Celloger Pro, enables real-time, non-invasive monitoring of live cells within an incubator—eliminating the traditional manual process of removing culture plates, observing them under a microscope, and returning them. With ultra-low power consumption and temperature control within ±0.1 °C, the Celloger Pro ensures no physical or chemical disturbance to samples during continuous observation. In Apr 2024, Curiosis entered into a comprehensive strategic partnership with global life sciences equipment leader Revvity, supplying the Celloger Pro under an ODM arrangement. Curiosis is also expanding its automation lineup with complementary products such as the CPX colony picker and the Cellpuri cell concentration chip, aiming to offer a complete end-to-end laboratory automation solution.

SUMMARY FINANCIAL DATA

(Continued on the next page)

	2021	2022	2023	2024
Revenue (KRWb)	0	5	3	5
Operating profit (KRWb)	0	(4)	(7)	(6)
Net Profit (KRWb)	0	(7)	(10)	(5)
EPS (adj) (KRW)	n/a	n/a	n/a	n/a
EPS (adj) growth (%)	nm	nm	nm	nm
EBITDA margin (%)	n/a	(79.0)	(175.3)	(95.5)
ROE (%)	n/a	72.6	51.4	100.5
P/E (adj) (x)	n/a	n/a	n/a	n/a
P/B (x)	n/a	n/a	n/a	n/a
EV/EBITDA (x)	n/a	n/a	n/a	n/a
Dividend yield (%)	n/a	n/a	n/a	n/a

Source: Company data, Samsung Securities

Strong distribution channels and strategic capacity expansion: The Celloger Pro is currently supplied to Revvity under a three-year volume commitment, with initial shipments of 20 units from Aug 2025, 30 units from Aug 2026, and 40 units from Aug 2027. Historically, live-cell imaging systems cost over KRW300m, making them inaccessible to small labs. Curiosis' products, priced from KRW20m to KRW150m, enable broad adoption across small, medium-sized, and large research facilities. The firm currently has sufficient production capacity to support KRW100b in annual sales, and it plans to double this to KRW200b by 1H27. This year, Curiosis aims to reach breakeven on full-year sales of KRW14b. With continuous vertical integration of key components driving gross margin expansion—from 41% in 2024 to 58% in 3Q25—the company is poised to benefit from significant operating leverage as sales scale.

Financial position and risks: Curiosis raised KRW26b in IPO proceeds. Excluding KRW7.3b in capex, annual SG&A expenses remain around KRW10b, suggesting limited near-term need to raise additional capital. Shares currently under lock-up will be released as follows: 1) 910,000 shares (14.3%) on Feb 13, 2026, after a 3-month lock-up; 2) 700,000 (11%) on Nov 13, 2026, after a 1-year lock-up; and 3) 1.3m shares (21%) on Nov 13, 2028, after a 3-year lock-up.

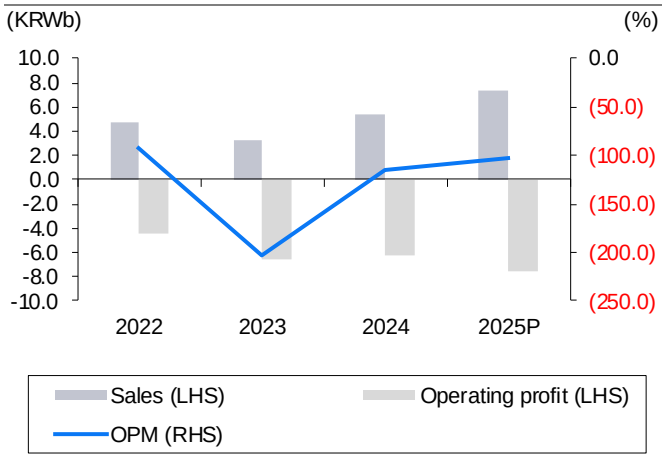
Results and consensus forecasts

(KRWb)	2022	2023	2024	2025P	2026E	1Q24	2Q24	3Q24	4Q24	1Q25	2Q25	3Q25	4Q25P
Revenue	4.8	3.2	5.4	7.3	16.2	1.0	1.3	1.5	1.6	1.5	2.0	1.2	2.6
Domestic	3.5	1.0	1.8							0.1	0.7	0.3	
Asia	0.7	1.1	2.9							1.0	1.1	0.7	
Europe	0.1	0.5	0.5							0.3	0.1	0.1	
North America	0.4	0.6	0.3							0.0	0.2	0.0	
Other	0.0	0.0	0.0							0.0	0.0	0.0	
Gross profit	**1.6**	**0.9**	**2.2**			**0.3**	**0.6**	**0.8**	**0.5**	**0.8**	**1.1**	**0.7**	
Operating profit	**-4.4**	**-6.6**	**-6.2**	**-7.5**	**-1.1**	**-1.6**	**-1.2**	**-1.1**	**-2.3**	**-1.8**	**-1.3**	**-2.1**	**-2.3**
Net profit (controlling)	**-6.9**	**-9.9**	**-4.8**	**-7.9**	**-0.7**	**-1.7**	**-1.3**	**-1.3**	**-0.6**	**-2.2**	**-1.3**	**-2.1**	**-2.3**
Chg (% y-y)													
Revenue		-33.0	68.5	34.9	121.8					60.5	53.5	-25.3	62.0
Domestic		-71.6	75.2										
Asia		60.8	151.6										
Europe		233.3	2.6										
North America		47.2	-52.1										
Other		nm	-37.3										
Gross profit		n/a	n/a							139.1	74.1	-11.9	
Operating profit		n/a	n/a	n/a	n/a					14.8	12.0	81.1	0.3
Net profit (controlling)		n/a	n/a	n/a	n/a					32.5	6.2	64.2	253.7
Margins (%)													
Gross profit	**34.4**	**27.0**	**40.9**			**34.1**	**48.6**	**49.4**	**30.4**	**50.8**	**55.1**	**58.3**	
Operating profit	**-92.5**	**-204.0**	**-114.6**	**-103.1**	**-7.0**	**-166.7**	**-90.2**	**-74.6**	**-141.9**	**-119.3**	**-65.8**	**-180.7**	**-87.9**
Net profit (controlling)	**-144.3**	**-306.9**	**-89.0**	**-107.7**	**-4.3**	**-173.0**	**-96.3**	**-81.9**	**-39.7**	**-142.8**	**-66.6**	**-180.0**	**-86.7**

Note: Estimates are consensus

Source: QuantiWise, Samsung Securities

Curiosis: Sales and operating profit



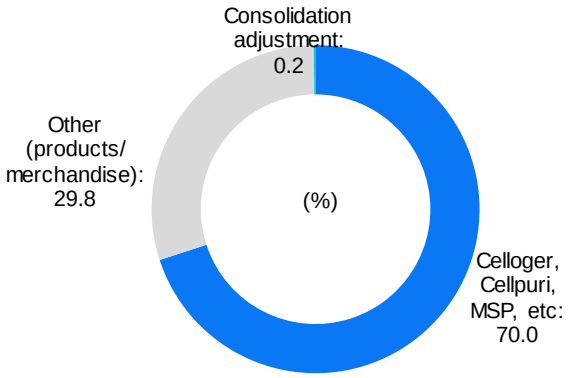
Source: Company data, Samsung Securities

Live-cell imaging equipment comparison

	3rd-generation (Company S)	4th generation (Curiosis)
Operation inside incubator	✓	✓
Optical system transport	✓	✓
Multi-plate usage	✓	✓
Automation suitability	X	✓
Multi-device operation	X	✓
Incubator temperature deviation	±2°C	±0.1°C
Condensation possibility	High	Low
Weight	23 kg + controller 16 kg	3.2 kg / 9.6 kg / 15.7 kg
Price	KRW200m-300m	KRW20m-150m
Automation suitability	Low	Very high

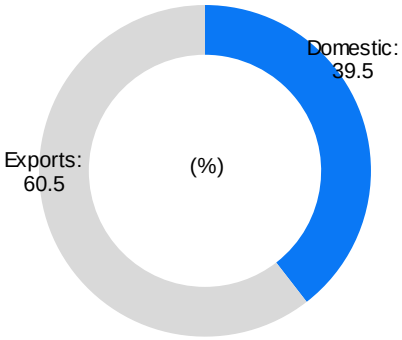
Source: Curiosis, Samsung Securities

Revenue mix by product (1Q-3Q25)



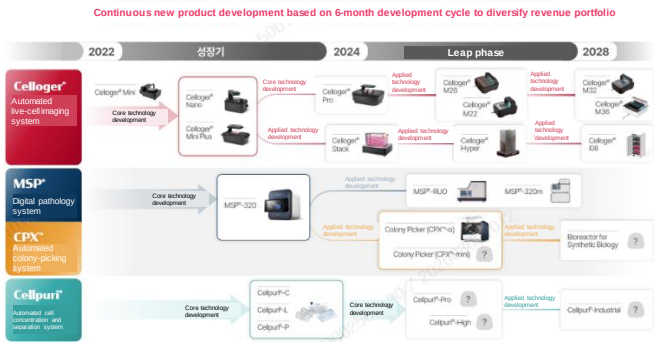
Source: Company data, Samsung Securities

Revenue mix by region (1Q-3Q25)



Source: Company data, Samsung Securities

Portfolio expansion plan across all lab automation fields



Source: Company data

Curiosis: Share lock-up status

Unlock date	Lock-up period	Number of shares	Portion of total (%)	Notes
Dec 13, 2025	1 month	1,303,733	20.5	
Feb 13, 2026	3 months	912,784	14.3	
Nov 13, 2026	1 year	700,986	11	
Nov 13, 2028	3 years	2,103,745	33	

Note: Based on 3Q25 quarterly report
Source: DART, Samsung Securities

Income statement

Year-end Dec 31	2020	2021	2022	2023	2024
Sales	**n/a**	**n/a**	**5**	**3**	**5**
Cost of goods sold	n/a	n/a	3	2	3
Gross profit	**n/a**	**n/a**	**2**	**1**	**2**
Gross margin (%)	n/a	n/a	34.4	27.0	40.9
SG&A expenses	n/a	n/a	6	7	8
Operating profit	**n/a**	**n/a**	**(4)**	**(7)**	**(6)**
Operating margin (%)	n/a	n/a	(92.5)	(204.0)	(114.6)
Non-operating Gains(Losses)	**n/a**	**n/a**	**(3)**	**(3)**	**1**
Financial Profit	n/a	n/a	0	0	4
Financial Costs	n/a	n/a	3	4	2
Gains(Losses) in Equity Method	n/a	n/a	0	0	(0)
Other	n/a	n/a	0	0	0
Pre-tax profit	**n/a**	**n/a**	**(7)**	**(10)**	**(5)**
Taxes	n/a	n/a	0	0	0
Effective tax rate (%)	n/a	n/a	0.0	0.0	0.0
Profit from continuing operations	n/a	n/a	(7)	(10)	(5)
Profit from discontinued operations	n/a	n/a	0	0	0
Net profit	**n/a**	**n/a**	**(7)**	**(10)**	**(5)**
Net margin (%)	n/a	n/a	(147.5)	(310.4)	(89.0)
Net profit (Controlling Interests)	n/a	n/a	(7)	(10)	(5)
Net profit (Non-controlling Interests)	n/a	n/a	(0)	(0)	0
EBITDA	n/a	n/a	(4)	(6)	(5)
EBITDA margin (%)	n/a	n/a	(79.0)	(175.3)	(95.5)
EPS(parent) (KRW)	n/a	n/a	n/a	n/a	n/a
EPS(consolidated) (KRW)	n/a	n/a	n/a	n/a	n/a
Adjusted EPS (KRW)*	n/a	n/a	n/a	n/a	n/a

Balance sheet

Year-end Dec 31	2020	2021	2022	2023	2024
Current assets	**n/a**	**n/a**	**3**	**5**	**13**
Cash & equivalents	n/a	n/a	1	1	9
Accounts receivable	n/a	n/a	0	1	1
Inventories	n/a	n/a	1	2	2
Other current assets	n/a	n/a	0	1	1
Fixed assets	**n/a**	**n/a**	**4**	**4**	**5**
Investment assets	n/a	n/a	0	0	0
Tangible assets	n/a	n/a	3	3	4
Intangible assets	n/a	n/a	0	0	0
Other long-term assets	n/a	n/a	0	1	1
Total assets	**n/a**	**n/a**	**7**	**9**	**17**
Current liabilities	**n/a**	**n/a**	**26**	**26**	**5**
Accounts payable	n/a	n/a	0	0	1
Short-term debt	n/a	n/a	1	3	3
Other current liabilities	n/a	n/a	24	23	2
Long-term liabilities	**n/a**	**n/a**	**1**	**3**	**2**
Bond & long-term debt	n/a	n/a	0	1	1
Other long-term liabilities	n/a	n/a	1	1	2
Total liabilities	**n/a**	**n/a**	**27**	**28**	**8**
Owners of parent equity	**n/a**	**n/a**	**(19)**	**(19)**	**10**
Capital stock	n/a	n/a	0	0	0
Capital surplus	n/a	n/a	1	11	45
Retained earnings	n/a	n/a	(20)	(30)	(35)
Other	n/a	n/a	0	0	(0)
Non-controlling interests equity	**n/a**	**n/a**	**(0)**	**0**	**0**
Total equity	**n/a**	**n/a**	**(19)**	**(19)**	**10**
Net debt	n/a	n/a	24	24	(5)

Cash flow statement

Year-end Dec 31	2020	2021	2022	2023	2024
Cash flow from operations	**n/a**	**n/a**	**(4)**	**(6)**	**(5)**
Net profit	n/a	n/a	(7)	(10)	(5)
Non-Cash Profit and Expense	n/a	n/a	4	5	0
Depreciation	n/a	n/a	1	1	1
Amortization	n/a	n/a	0	0	0
Others	n/a	n/a	3	4	(1)
Changes in A/L from Operating Activities	n/a	n/a	(1)	(1)	(0)
Cash flow from investments	**n/a**	**n/a**	**(0)**	**(0)**	**(0)**
Change in Tangible Assets	n/a	n/a	(0)	(0)	(0)
Change in Financial Assets	n/a	n/a	(0)	(0)	0
Other	n/a	n/a	0	0	(0)
Cash flow from financing	**n/a**	**n/a**	**4**	**7**	**13**
Change in debt	n/a	n/a	25	1	(21)
Change in equity	n/a	n/a	n/a	n/a	n/a
Dividends	n/a	n/a	0	0	0
Other	n/a	n/a	n/a	n/a	n/a
Change in cash	n/a	n/a	(1)	0	8
Cash at beginning of year	n/a	n/a	2	1	1
Cash at end of year	n/a	n/a	1	1	9
Gross cash flow	**n/a**	**n/a**	**(3)**	**(5)**	**(4)**
Free cash flow	**n/a**	**n/a**	**(4)**	**(6)**	**(5)**

Financial ratios

Year-end Dec 31	2020	2021	2022	2023	2024
Growth (%)					
Sales	nm	nm	nm	(33.0)	68.5
Operating profit	nm	nm	nm	nm	nm
Net profit	nm	nm	nm	nm	nm
Adjusted EPS**	nm	nm	nm	nm	nm
Per share data (KRW)					
EPS(parent)	n/a	n/a	n/a	n/a	n/a
EPS(consolidated)	n/a	n/a	n/a	n/a	n/a
Adjusted EPS **	n/a	n/a	n/a	n/a	n/a
BPS	n/a	n/a	n/a	n/a	n/a
DPS (common)	n/a	n/a	n/a	n/a	n/a
Valuations (x)					
P/E***	n/a	n/a	n/a	n/a	n/a
P/B***	n/a	n/a	n/a	n/a	n/a
EV/EBITDA	n/a	n/a	n/a	n/a	n/a
Ratios					
ROE (%)	n/a	n/a	72.6	51.4	100.5
ROA (%)	n/a	n/a	(189.8)	(122.7)	(36.8)
ROIC (%)	n/a	n/a	(175.8)	(118.1)	(100.0)
Payout ratio (%)	n/a	n/a	n/a	n/a	n/a
Dividend yield (Common, %)	n/a	n/a	n/a	n/a	n/a
Net debt to equity (%)	n/a	n/a	(123.8)	(125.9)	(49.0)
Interest coverage (x)	n/a	n/a	(4.6)	(4.6)	(4.0)

Note: *Excluding one-off items;
**Fully diluted, excluding one-off items;
***From companies subject to equity-method valuation

Source: Company data, Samsung Securities

COMPANY UPDATE

2026. 3. 20

Scan to go to
Research Center report database

Innovation Team

Donghee Jeong
Analyst
donghee1009.jeong@samsung.com

Curiox Biosystems (445680)

High-margin software to spur turnaround

- Curiox BioSystems has developed automated cell analysis equipment and software that are compatible with third-party workstations.
- The firm's earnings should gain momentum once it starts supplying Pluto Wash technology to global CROs and large pharmas.

WHAT'S THE STORY?

Supplying equipment and software for flow cytometry: Curiox BioSystems, founded in 2018 and listed on the Kosdaq in Aug 2023, develops and manufactures automated systems for cell analysis. The company has revolutionized traditional workflows—where manual centrifugation could take up to five hours—by introducing Pluto Alpha and Pluto Workstation, which together improve cell recovery (after washing) and minimize intervention from researchers. Through a partnership with global life sciences leader Revvity, Curiox BioSystems produces the Pluto Workstation under an OEM agreement, with Revvity's Hong Kong plant able to make around 700 units per month. From this year, Curiox BioSystems plans to expand beyond its own hardware by licensing Pluto Code (software that is compatible with systems made by vendors such as Beckman Coulter and Hamilton).

(Continued on the next page)

AT A GLANCE

Not Rated

Target price	n/a
Current price	KRW131,700
Market Cap	KRW2.3t/USD1.5b
Shares (float)	17,119,833 (82.5%)
52-week high/low	KRW139,600/KRW15,430
Avg daily trading value (60-day)	KRW18.9b/ USD12.6m

ONE-YEAR PERFORMANCE

	1M	6M	12M
Curiox Biosystems(%)	17.6	131.1	658.2
Vs Kosdaq (%pts)	19.4	74.4	389.6

SAMSUNG vs THE STREET

No of estimates	n/a
Target price	n/a
Recommendation	n/a

※ Rating: 4 < → BUY, 3 = HOLD, 2 > → SELL

SUMMARY FINANCIAL DATA

	2021	2022	2023	2024
Revenue (KRWb)	6	7	7	5
Operating profit (KRWb)	(8)	(11)	(11)	(13)
Net Profit (KRWb)	(15)	(11)	(10)	(8)
EPS (adj) (KRW)	n/a	n/a	n/a	n/a
EPS (adj) growth (%)	nm	nm	nm	nm
EBITDA margin (%)	(128.6)	(135.7)	(126.8)	(235.4)
ROE (%)	(127.1)	(46.5)	(20.8)	(15.9)
P/E (adj) (x)	n/a	n/a	n/a	n/a
P/B (x)	n/a	n/a	n/a	n/a
EV/EBITDA (x)	n/a	n/a	n/a	n/a
Dividend yield (%)	n/a	n/a	n/a	n/a

Source: Company data, Samsung Securities

High-compatibility software technology—key advantage: Curiox's Pluto Wash technology, an evolution of its original Laminar Wash method, is designed to run natively on standard laboratory workstations that already exist in research facilities. Leading global CRO IQVIA, major pharmaceutical firm AstraZeneca, and other companies have either adopted Pluto Wash or are evaluating it as a next-generation solution. Its core technical innovations are protected by patents. With the lab automation market projected to grow at a CAGR of 8% over 2025-2031, Curiox's key differentiator is its ability to transform existing hardware into automated systems with a simple software update—bypassing the need for costly equipment upgrades. The company targets generating over 50% of its sales from Pluto Code in 2026. With enterprise-level adoption discussions already underway with top pharmaceutical clients (since 2Q25), it is likely to win orders and establish track records in the not-too-distant future.

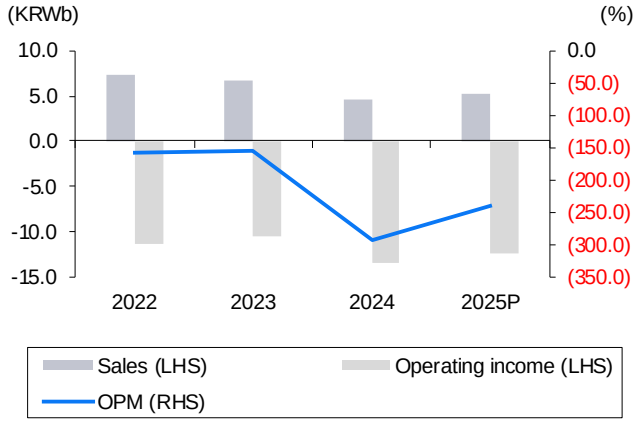
Financials and risks: As of 3Q25, the company held KRW20b in cash and cash equivalents, with annual SG&A expenses of around KRW15b. Achieving profitability in 2026 should be pivotal to securing funding in the future. Outstanding convertible bonds total KRW4b, with an exercise price of KRW21,350 per share (187,000 shares).

Curiox Biosystems

(KRWb)	2022	2023	2024	2025P	1Q24	2Q24	3Q24	4Q24	1Q25	2Q25	3Q25	4Q25P
Revenue	7.2	6.8	4.6	5.2	1.6	1.1	1.0	1.0	0.9	1.0	1.4	1.8
Cell pretreatment automation equipment	5.4	4.6	2.5		0.9	0.6	0.5	0.5	0.4	0.5	0.9	
Plate	0.5	0.5	0.5		0.1	0.1	0.2	0.1	0.1	0.2	0.1	
Accessories	0.6	0.7	0.5		0.2	0.1	0.1	0.1	0.1	0.1	0.0	
Other	0.7	0.9	1.0	5.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3	
Gross profit	4.7	3.8	2.6		0.8	0.6	0.5	0.6	0.6	-0.3	0.8	
Operating profit	-11.4	-10.6	-13.4	-12.3	-3.3	-3.2	-3.3	-3.6	-3.0	-4.0	-2.7	-2.7
Net profit (controlling)	-11.5	-10.0	-8.1	-27.2	-2.7	-3.1	-4.0	1.7	-3.6	-18.3	-3.0	-2.3
Chg (% y-y)												
Revenue		-6.2	-32.4	4.6					-41.9	-8.9	45.5	93.5
Cell pretreatment automation equipment		-15.0	-46.4						-53.8	-17.0	99.3	
Plate		10.8	2.1						-36.1	18.0	-48.3	
Accessories		27.9	-27.4						-67.5	-17.5	-26.3	
Other		21.2	15.0	361.7					10.0	-1.2	30.1	
Gross profit		-19.2	-33.1						-27.4	-149.2	60.5	
Operating profit		-7.6	26.7	-11.8					n/a	n/a	n/a	n/a
Net profit (controlling)		-12.7	-19.4	-2.3					n/a	n/a	n/a	n/a
Margin (%)												
Gross profit	65.4	56.4	55.8		53.5	53.9	53.6	63.9	66.9	-29.1	59.1	
Operating profit	-157.8	-155.5	-291.6	-245.8	-205.4	-295.5	-342.6	-379.6	-328.0	-397.5	-193.6	-143.6
Net profit (controlling)	-158.8	-147.9	-176.3	-164.6	-167.4	-281.4	-422.3	173.8	-392.4	-1834.1	-218.8	-122.9

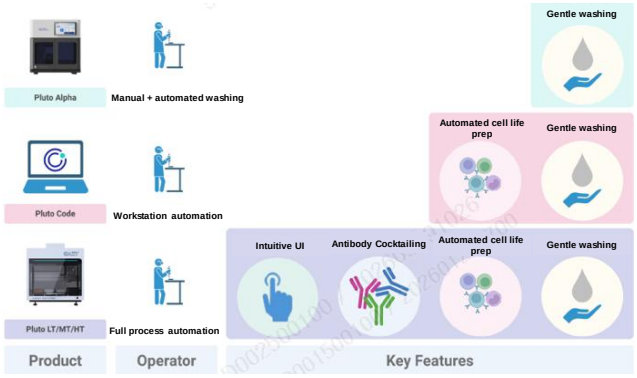
Source: QuantiWise, Samsung Securities

Curiox BioSystems' earnings



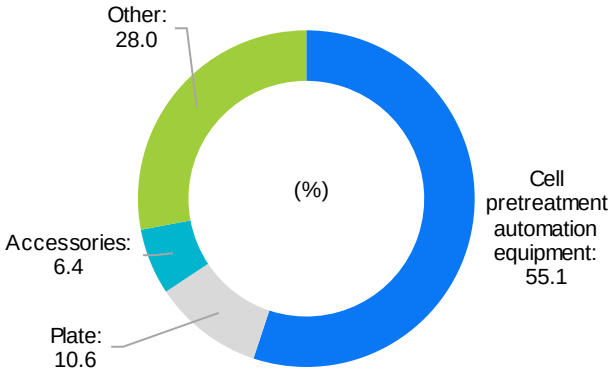
Source: Curiox Biosystems, Samsung Securities

Equipment/software for various laboratory environments



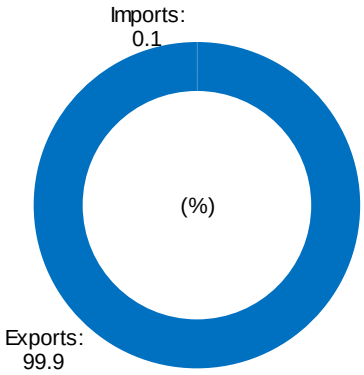
Source: Curiox Biosystems

Revenue, by product (1Q-3Q25 basis)



Source: Curiox Biosystems, Samsung Securities

Revenue, by type (1Q-3Q25 basis)



Source: Curiox Biosystems, Samsung Securities

Mid-to-long-term growth strategy leading from software to equipment

- **2025-2026 outlook**
  - Secure Pluto product references and discuss sales contracts with global equipment/reagent companies at the same time

Category	Sales status	Note
Region	30+ countries	Major countries like U.S., Europe
Own sales capability	40+ countries (main regions centered)	Sales to global biopharma
External sales capability	Discussing sales contracts with global companies	Radical increase in credibility and awareness

- **2026-2028 outlook (Radial technology diffusion)**
  - **Diffusion centered on Pluto Code* expected**
  - **Generate >70% of performance through partnerships (OEM, etc.)**
  - **Consumables revenue mix expected at 20-40+%**

  *Pluto Code is software → Gross margin close to 100%
- **2028-2030 outlook (Standardization-based growth)**
  - **Equipment-centered revenue expected**
  - **Generate >70% of performance through partnerships (OEM, etc.)**
  - **Consumables revenue mix expected at 20-40+%**

Source: Curiox Biosystems, Samsung Securities

Curiox BioSystems: Lock-up status

Release date	Lock-up period	Number of shares	Weight (%)	Notes
Aug 10, 2026	3 years	3,784,378	23.4	Largest shareholder, shareholders requiring lock-up

Note: Based on 3Q25 quarterly report
Source: DART, Samsung Securities

Income statement

Year-end Dec 31	2020	2021	2022	2023	2024
Sales	**4**	**6**	**7**	**7**	**5**
Cost of goods sold	1	2	3	3	2
Gross profit	**3**	**3**	**5**	**4**	**3**
Gross margin (%)	66.8	63.3	65.4	56.4	55.8
SG&A expenses	6	12	16	14	16
Operating profit	**(3)**	**(8)**	**(11)**	**(11)**	**(13)**
Operating margin (%)	(74.5)	(151.0)	(157.8)	(155.5)	(291.6)
Non-operating Gains(Losses)	**(3)**	**(6)**	**0**	**0**	**5**
Financial Profit	0	0	3	1	9
Financial Costs	3	7	3	1	4
Gains(Losses) in Equity Method	0	0	0	0	0
Other	0	0	0	0	(0)
Pre-tax profit	**(6)**	**(15)**	**(11)**	**(10)**	**(8)**
Taxes	(0)	(0)	0	(0)	0
Effective tax rate (%)	2.3	1.1	(1.8)	1.7	(1.2)
Profit from continuing operations	(6)	(15)	(11)	(10)	(8)
Profit from discontinued operations	0	0	0	0	0
Net profit	**(6)**	**(15)**	**(11)**	**(10)**	**(8)**
Net margin (%)	(143.2)	(263.0)	(158.9)	(147.9)	(176.3)
Net profit (Controlling Interests)	(6)	(15)	(11)	(10)	(8)
Net profit (Non-controlling Interests)	0	(0)	(0)	(0)	(0)
EBITDA	(2)	(7)	(10)	(9)	(11)
EBITDA margin (%)	(49.0)	(128.6)	(135.7)	(126.8)	(235.4)
EPS(parent) (KRW)	n/a	n/a	n/a	n/a	n/a
EPS(consolidated) (KRW)	n/a	n/a	n/a	n/a	n/a
Adjusted EPS (KRW)*	n/a	n/a	n/a	n/a	n/a

Balance sheet

Year-end Dec 31	2020	2021	2022	2023	2024
Current assets	**10**	**23**	**14**	**22**	**32**
Cash & equivalents	7	11	6	18	24
Accounts receivable	1	1	2	2	1
Inventories	1	2	3	2	2
Other current assets	1	9	4	0	6
Fixed assets	**31**	**33**	**35**	**36**	**38**
Investment assets	0	0	0	0	0
Tangible assets	0	0	1	1	1
Intangible assets	31	32	33	34	36
Other long-term assets	0	0	0	1	1
Total assets	**41**	**56**	**49**	**58**	**71**
Current liabilities	**22**	**48**	**3**	**3**	**20**
Accounts payable	0	1	1	0	0
Short-term debt	0	0	0	0	0
Other current liabilities	22	47	2	2	20
Long-term liabilities	**2**	**2**	**2**	**2**	**2**
Bond & long-term debt	0	0	0	0	0
Other long-term liabilities	2	2	2	2	2
Total liabilities	**24**	**50**	**5**	**5**	**22**
Owners of parent equity	**17**	**6**	**44**	**53**	**49**
Capital stock	1	1	3	4	8
Capital surplus	28	28	72	89	85
Retained earnings	(9)	(24)	(35)	(45)	(54)
Other	(2)	1	4	5	9
Non-controlling interests equity	**0**	**0**	**0**	**0**	**0**
Total equity	**17**	**6**	**44**	**53**	**49**
Net debt	2	(3)	(8)	(17)	(11)

Cash flow statement

Year-end Dec 31	2020	2021	2022	2023	2024
Cash flow from operations	**(3)**	**(5)**	**(10)**	**(8)**	**(10)**
Net profit	(6)	(15)	(11)	(10)	(8)
Non-Cash Profit and Expense	5	9	2	1	(2)
Depreciation	0	0	1	1	1
Amortization	1	1	1	1	2
Others	3	8	1	(0)	(5)
Changes in A/L from Operating Activities	(1)	0	(1)	0	0
Cash flow from investments	**2**	**(8)**	**5**	**3**	**(4)**
Change in Tangible Assets	(0)	(0)	(1)	(0)	(0)
Change in Financial Assets	2	(8)	6	3	(5)
Other	(0)	0	(0)	(0)	1
Cash flow from financing	**0**	**17**	**(0)**	**18**	**20**
Change in debt	2	7	(16)	1	17
Change in equity	n/a	n/a	n/a	n/a	n/a
Dividends	0	0	0	0	0
Other	n/a	n/a	n/a	n/a	n/a
Change in cash	(1)	4	(5)	12	6
Cash at beginning of year	8	7	11	6	18
Cash at end of year	7	11	6	18	24
Gross cash flow	**(2)**	**(5)**	**(9)**	**(9)**	**(10)**
Free cash flow	**(3)**	**(5)**	**(11)**	**(8)**	**(10)**

Financial ratios

Year-end Dec 31	2020	2021	2022	2023	2024
Growth (%)					
Sales	218.0	26.0	31.0	(6.2)	(32.4)
Operating profit	nm	nm	nm	nm	nm
Net profit	nm	nm	nm	nm	nm
Adjusted EPS**	nm	nm	nm	nm	nm
Per share data (KRW)					
EPS(parent)	n/a	n/a	n/a	n/a	n/a
EPS(consolidated)	n/a	n/a	n/a	n/a	n/a
Adjusted EPS **	n/a	n/a	n/a	n/a	n/a
BPS	n/a	n/a	n/a	n/a	n/a
DPS (common)	n/a	n/a	n/a	n/a	n/a
Valuations (x)					
P/E***	n/a	n/a	n/a	n/a	n/a
P/B***	n/a	n/a	n/a	n/a	n/a
EV/EBITDA	n/a	n/a	n/a	n/a	n/a
Ratios					
ROE (%)	(29.9)	(127.1)	(46.5)	(20.8)	(15.9)
ROA (%)	(14.2)	(29.9)	(22.0)	(18.9)	(12.6)
ROIC (%)	(14.1)	(66.5)	(56.6)	(27.7)	(35.1)
Payout ratio (%)	n/a	n/a	n/a	n/a	n/a
Dividend yield (Common, %)	n/a	n/a	n/a	n/a	n/a
Net debt to equity (%)	10.7	(60.9)	(19.0)	(32.0)	(22.6)
Interest coverage (x)	(2.4)	(4.9)	(4.1)	(410.8)	(19.1)

Note: *Excluding one-off items
**Fully diluted, excluding one-off items
***From companies subject to equity-method valuation

Source: Company data, Samsung Securities

COMPANY UPDATE

2026. 3. 18

Scan to go to
Research Center report database

Innovation Team

Donghee Jeong
Analyst
donghee1009.jeong@samsung.com

Tomocube (475960)

At the forefront of holotomography

- Tomocube targets annual sales of KRW20b, supported by growing demand for holotomography in organoid research.
- It has several catalysts ahead, including: 1) the outcome of joint research with a major pharmaceutical company (Company R) to be unveiled in 3Q26; and 2) additional orders from non-biotech sectors anticipated this year.

WHAT'S THE STORY?

Optical equipment firm at forefront of paradigm shift: Founded in 2015 and listed on the Kosdaq in 2024, Tomocube develops and manufactures optical technology-based instruments for biotech research and industrial metrology. At its core, Tomocube's technology uses mathematical analysis of how light diffracts when passing through a sample to digitally rebuild its 3D structure—unlike traditional systems that rotate the light source through multiple angles, Tomocube keeps the light source fixed and instead uses a digital micromirror device (DMD) to achieve high-resolution 3D imaging. Traditionally, cells are sectioned and stained before observation, but the staining reagents and phototoxicity can cause cellular damage. Holotomography, which enables label-free non-invasive 3D imaging of live cells, is therefore emerging as a promising alternative. Tomocube's product line is categorized based on the observable cell diameter. Annual sales rose 90.4% to KRW11.3b in 2025, and the firm is targeting KRW20b in sales and breakeven in 2026.

(Continued on the next page)

AT A GLANCE

Not rated

Target price	n/a
Current price	**KRW53,300**
Market Cap	KRW713.33b/USD477.59m
Shares (float)	13,383,274 (73.4%)
52-week high/low	KRW66,300/KRW13,660
Avg daily trading value (60-day)	KRW11.8b/ USD7.9m

ONE-YEAR PERFORMANCE

	1M	6M	12M
Tomocube (%)	1.1	7.2	239.3
Vs Kosdaq (%pts)	-1.6	-20.2	121.9

SAMSUNG vs THE STREET

No of estimates	1
Target price	80,000
Recommendation	4.0

※ Rating: 4 < → BUY, 3 = HOLD, 2 > → SELL

SUMMARY FINANCIAL DATA

	2021	2022	2023	2024
Revenue (KRWb)	n/a	n/a	4	6
Operating profit (KRWb)	n/a	n/a	(7)	(9)
Net Profit (KRWb)	n/a	n/a	(24)	(8)
EPS (adj) (KRW)	n/a	n/a	n/a	n/a
EPS (adj) growth (%)	n/a	n/a	nm	nm
EBITDA margin (%)	n/a	n/a	(149.7)	(127.1)
ROE (%)	n/a	n/a	(266.0)	(27.8)
P/E (adj) (x)	n/a	n/a	n/a	n/a
P/B (x)	n/a	n/a	n/a	n/a
EV/EBITDA (x)	n/a	n/a	n/a	n/a
Dividend yield (%)	n/a	n/a	n/a	n/a

Source: Company data, Samsung Securities

Demand to replace animal testing with organoids; business segments beyond biotech: Since the US FDA released its roadmap to phase out animal testing in Apr 2025, related regulations have been taking shape, including a December recommendation to reduce the duration of primate toxicology studies. Holotomography is increasingly being recognized as a promising new approach methodology (NAM) for observation of organoids. Tomocube is co-developing a holotomography- and AI-based organoid analysis methodology with a major global pharmaceutical company (Company R), the results of which are scheduled to be unveiled in 3Q26. Successful commercialization could unlock new sales channels through an expanded partnership. Tomocube has a higher-margin product portfolio outside biotech—namely, in display and semiconductor inspections, where its non-destructive testing technology delivers distinct advantages. These products, which carry gross margins of nearly 70%, secured two orders in 2025, each valued at KRW300m-400m, with further wins expected. In parallel, the company is in discussions to supply reflective modules for wafer inspection, with full commercialization targeted for 2H27.

Financials and risks: At end-4Q25, the company held KRW27b in cash and cash equivalents, providing strong financial flexibility relative to its annual SG&A costs of KRW13b. Excluding the shares held by the largest shareholder and related parties (25%; in a 3-year lock-up until Nov 2027), there is no additional near-term overhang.

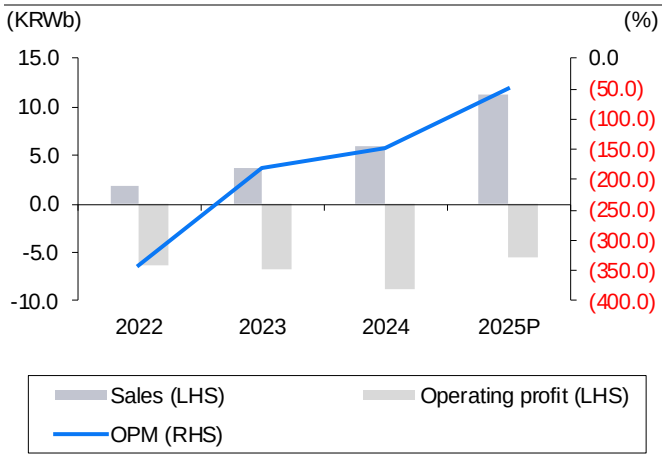
Results and consensus forecasts

(KRWb)	2022	2023	2024	2025P	2026E	1Q24	2Q24	3Q24	4Q24	1Q25	2Q25	3Q25	4Q25P
Revenue	1.9	3.7	5.9	11.3	23.2	1.2	1.7	2.1	0.9	0.7	3.1	2.5	5.0
Domestic		1.4	3.4							0.0	1.0	0.5	
Asia		1.1	1.9							0.2	0.7	0.3	
Europe		1.0	0.4							0.3	1.4	1.0	
Other	1.9	0.3	0.1							0.1	0.1	0.6	
Gross profit	**0.9**	**2.2**	**3.6**	**7.4**		**0.7**	**1.0**	**1.3**	**0.6**	**0.3**	**2.1**	**1.6**	**3.4**
Operating profit	**-6.4**	**-6.7**	**-8.8**	**-5.6**	**2.3**	**-2.5**	**-1.9**	**-1.6**	**-2.7**	**-3.0**	**-1.1**	**-1.8**	**0.4**
Net profit (controlling)	**29.3**	**-23.6**	**-8.3**	**-4.8**	**2.8**	**-2.4**	**-1.8**	**-1.6**	**-2.5**	**-2.8**	**-1.1**	**-1.5**	**0.6**
Chg (% y-y)													
Revenue		100.3	58.5	90.4	105.2					-46.0	82.8	20.0	448.6
Domestic		n/a	150.1										
Asia		n/a	69.0										
Europe		n/a	-55.0										
Other		-85.4	-45.8										
Gross profit		131.5	64.5	107.3						-53.1	119.8	20.8	446.4
Operating profit		5.7	30.4	-36.6	-140.4					18.3	-42.2	16.4	-114.7
Net profit (controlling)		-180.3	-64.7	-42.1	-158.2					14.9	-38.5	-1.8	-126.0
Margins (%)													
Gross profit	**50.4**	**58.2**	**60.4**	**65.1**		**57.4**	**56.8**	**61.7**	**68.5**	**49.8**	**68.3**	**62.1**	**68.3**
Operating profit	**-340.4**	**-179.7**	**-147.8**	**-49.3**	**9.7**	**-210.6**	**-113.3**	**-74.8**	**-298.4**	**-461.2**	**-35.8**	**-72.5**	**8.0**
Net profit (controlling)	**1567.9**	**-628.5**	**-139.8**	**-42.5**	**12.1**	**-200.6**	**-106.8**	**-74.5**	**-272.3**	**-426.7**	**-36.0**	**-60.9**	**12.9**

Note: Estimates are consensus

Source: QuantiWise, Samsung Securities

Tomocube: Sales and operating profit



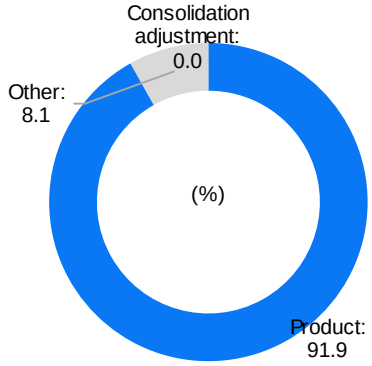
Source: Tomocube, Samsung Securities

Holotomography product comparison

	3D Explorer	HT-X1/HT-X1 Plus/HT-X1 mini	HT-X1 Max
			Official launch scheduled for 4Q26
Category	1st-generation	2nd-generation	Next-generation
Company	NanoLive	Tomocube	Tomocube
Pros	High resolution	High image quality and SNR, high system stability	Measurement height improved more than twice compared to existing products
Cons	Frequent noise, only thin cells can be measured (3D)	Relatively high price (not mini)	
Max resolution	250 nm	150 nm	124 nm
Measurement height	30 μm	150 μm	500 μm
Light source	Laser	LED (single light source)	LED (multiple light sources available)

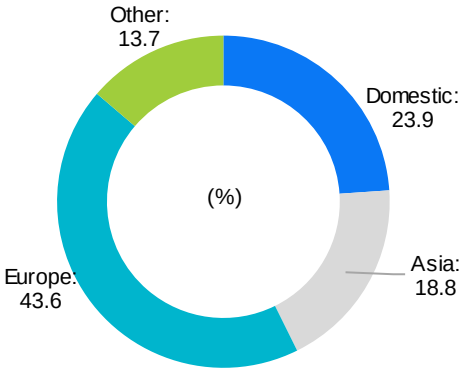
Source: Tomocube, Samsung Securities

Revenue mix, by product (1Q-3Q25)



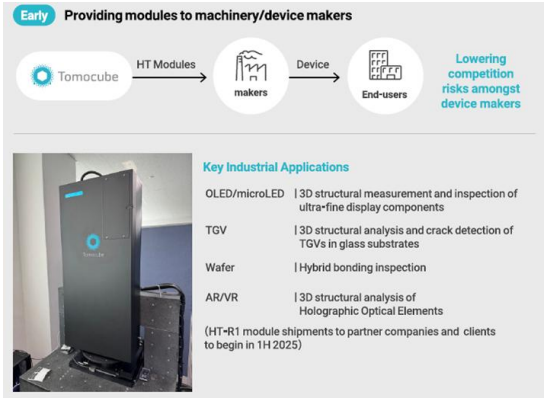
Source: Company data, Samsung Securities

Revenue mix, by region (1Q-3Q25)



Source: Company data, Samsung Securities

Non-bio volume as a longer-term source of momentum



Source: Tomocube

Tomocube: Share lock-up status

Unlock date	Lock-up period	Number of shares	Portion of total (%)	Notes
Nov 6, 2027	3 years	3,300,000	24.9	Largest shareholder and related parties

Note: Based on 3Q25 quarterly report
Source: DART, Samsung Securities

Income statement

Year-end Dec 31	2020	2021	2022	2023	2024
Sales	**n/a**	**n/a**	**n/a**	**4**	**6**
Cost of goods sold	n/a	n/a	n/a	2	2
Gross profit	**n/a**	**n/a**	**n/a**	**2**	**4**
Gross margin (%)	n/a	n/a	n/a	58.2	60.4
SG&A expenses	n/a	n/a	n/a	9	12
Operating profit	**n/a**	**n/a**	**n/a**	**(7)**	**(9)**
Operating margin (%)	n/a	n/a	n/a	(179.7)	(147.8)
Non-operating Gains(Losses)	**n/a**	**n/a**	**n/a**	**(17)**	**0**
Financial Profit	n/a	n/a	n/a	1	0
Financial Costs	n/a	n/a	n/a	17	0
Gains(Losses) in Equity Method	n/a	n/a	n/a	0	0
Other	n/a	n/a	n/a	0	0
Pre-tax profit	**n/a**	**n/a**	**n/a**	**(24)**	**(8)**
Taxes	n/a	n/a	n/a	0	0
Effective tax rate (%)	n/a	n/a	n/a	0.0	0.0
Profit from continuing operations	n/a	n/a	n/a	(24)	(8)
Profit from discontinued operations	n/a	n/a	n/a	0	0
Net profit	**n/a**	**n/a**	**n/a**	**(24)**	**(8)**
Net margin (%)	n/a	n/a	n/a	(628.5)	(139.8)
Net profit (Controlling Interests)	n/a	n/a	n/a	(24)	(8)
Net profit (Non-controlling Interests)	n/a	n/a	n/a	0	0
EBITDA	n/a	n/a	n/a	(6)	(8)
EBITDA margin (%)	n/a	n/a	n/a	(149.7)	(127.1)
EPS(parent) (KRW)	n/a	n/a	n/a	n/a	n/a
EPS(consolidated) (KRW)	n/a	n/a	n/a	n/a	n/a
Adjusted EPS (KRW)*	n/a	n/a	n/a	n/a	n/a

Balance sheet

Year-end Dec 31	2020	2021	2022	2023	2024
Current assets	**n/a**	**n/a**	**n/a**	**16**	**40**
Cash & equivalents	n/a	n/a	n/a	3	13
Accounts receivable	n/a	n/a	n/a	1	1
Inventories	n/a	n/a	n/a	2	2
Other current assets	n/a	n/a	n/a	10	24
Fixed assets	**n/a**	**n/a**	**n/a**	**4**	**4**
Investment assets	n/a	n/a	n/a	0	0
Tangible assets	n/a	n/a	n/a	3	3
Intangible assets	n/a	n/a	n/a	0	1
Other long-term assets	n/a	n/a	n/a	0	0
Total assets	**n/a**	**n/a**	**n/a**	**20**	**44**
Current liabilities	**n/a**	**n/a**	**n/a**	**2**	**1**
Accounts payable	n/a	n/a	n/a	0	0
Short-term debt	n/a	n/a	n/a	1	0
Other current liabilities	n/a	n/a	n/a	1	1
Long-term liabilities	**n/a**	**n/a**	**n/a**	**0**	**0**
Bond & long-term debt	n/a	n/a	n/a	0	0
Other long-term liabilities	n/a	n/a	n/a	0	0
Total liabilities	**n/a**	**n/a**	**n/a**	**2**	**2**
Owners of parent equity	**n/a**	**n/a**	**n/a**	**18**	**42**
Capital stock	n/a	n/a	n/a	3	7
Capital surplus	n/a	n/a	n/a	67	98
Retained earnings	n/a	n/a	n/a	(57)	(66)
Other	n/a	n/a	n/a	6	3
Non-controlling interests equity	**n/a**	**n/a**	**n/a**	**0**	**0**
Total equity	**n/a**	**n/a**	**n/a**	**18**	**42**
Net debt	n/a	n/a	n/a	(11)	(36)

Cash flow statement

Year-end Dec 31	2020	2021	2022	2023	2024
Cash flow from operations	**n/a**	**n/a**	**n/a**	**(6)**	**(7)**
Net profit	n/a	n/a	n/a	(24)	(8)
Non-Cash Profit and Expense	n/a	n/a	n/a	19	2
Depreciation	n/a	n/a	n/a	1	1
Amortization	n/a	n/a	n/a	0	0
Others	n/a	n/a	n/a	18	1
Changes in A/L from Operating Activities	n/a	n/a	n/a	(2)	(1)
Cash flow from investments	**n/a**	**n/a**	**n/a**	**7**	**(14)**
Change in Tangible Assets	n/a	n/a	n/a	(0)	(1)
Change in Financial Assets	n/a	n/a	n/a	(10)	(14)
Other	n/a	n/a	n/a	17	(0)
Cash flow from financing	**n/a**	**n/a**	**n/a**	**(0)**	**31**
Change in debt	n/a	n/a	n/a	1	(1)
Change in equity	n/a	n/a	n/a	n/a	n/a
Dividends	n/a	n/a	n/a	0	0
Other	n/a	n/a	n/a	n/a	n/a
Change in cash	n/a	n/a	n/a	1	10
Cash at beginning of year	n/a	n/a	n/a	2	3
Cash at end of year	n/a	n/a	n/a	3	13
Gross cash flow	**n/a**	**n/a**	**n/a**	**(4)**	**(6)**
Free cash flow	**n/a**	**n/a**	**n/a**	**(6)**	**(7)**

Financial ratios

Year-end Dec 31	2020	2021	2022	2023	2024
Growth (%)					
Sales	nm	nm	nm	nm	58.5
Operating profit	nm	nm	nm	nm	nm
Net profit	nm	nm	nm	nm	nm
Adjusted EPS**	nm	nm	nm	nm	nm
Per share data (KRW)					
EPS(parent)	n/a	n/a	n/a	n/a	n/a
EPS(consolidated)	n/a	n/a	n/a	n/a	n/a
Adjusted EPS **	n/a	n/a	n/a	n/a	n/a
BPS	n/a	n/a	n/a	n/a	n/a
DPS (common)	n/a	n/a	n/a	n/a	n/a
Valuations (x)					
P/E***	n/a	n/a	n/a	n/a	n/a
P/B***	n/a	n/a	n/a	n/a	n/a
EV/EBITDA	n/a	n/a	n/a	n/a	n/a
Ratios					
ROE (%)	n/a	n/a	n/a	(266.0)	(27.8)
ROA (%)	n/a	n/a	n/a	(238.2)	(26.2)
ROIC (%)	n/a	n/a	n/a	(197.1)	(129.4)
Payout ratio (%)	n/a	n/a	n/a	n/a	n/a
Dividend yield (Common, %)	n/a	n/a	n/a	n/a	n/a
Net debt to equity (%)	n/a	n/a	n/a	(63.4)	(84.9)
Interest coverage (x)	n/a	n/a	n/a	(1.3)	(133.3)

Note: *Excluding one-off items;
**Fully diluted, excluding one-off items;
***From companies subject to equity-method valuation

Source: Company data, Samsung Securities

COMPANY UPDATE

2026. 3. 18

Scan to go to
Research Center report database

IVIM Technology (460470)

Steadily expanding customer references

- IVIM Technology is steadily broadening its bioimaging systems customer base, recently adding global equipment leader Revvity to its list of references.
- The company is positioned to benefit from the transitional phase of animal testing phase-out, a process expected to take over five years, while capitalizing on the expansion of CRO services.

Innovation Team

Donghee Jeong
Analyst
donghee1009.jeong@samsung.com

WHAT'S THE STORY?

Gradual expansion of export channels via Revvity: Founded in 2017, IVIM Technology based its business on proprietary IntraVital Microscopy (IVM) technology developed at KAIST. The firm went public on the Kosdaq in 2024. Over 1Q-3Q25, the firm derived 68.5% of its revenue from bioimaging systems, 9.5% from CRO services, 2% from imaging accessories, and 20% from other sources. IVIM's two-photon microscopy systems enable real-time, *in vivo* observation of live animal subjects during preclinical studies—a capability far superior to conventional confocal microscopes thanks to key differentiators: 1) faster scanning speeds; 2) integrated heating plates to maintain physiological conditions; 3) advanced window technology for stable tissue imaging; and 4) AI-powered image correction algorithms. IVIM is expanding global sales through regional partners. In China, it supplies bioimaging systems to Revvity, leveraging the latter's established distribution network.

(Continued on the next page)

AT A GLANCE

Not rated

Target price	n/a
Current price	**KRW3,900**
Market cap	KRW58.97b/USD39.48m
Shares (float)	15,119,370 (77.5%)
52-week high/low	KRW5,170/KRW2,740
Avg daily trading value (60-day)	KRW0.6b/ USD0.4m

ONE-YEAR PERFORMANCE

	1M	6M	12M
IVIM Technology, Inc. (%)	23.4	28.7	-24.6
Vs Kosdaq (%pts)	20.1	-4.3	-50.7

SAMSUNG vs THE STREET

No of estimates	n/a
Target price	n/a
Recommendation	n/a

※ Rating: 4 < → BUY, 3 = HOLD, 2 > → SELL

SUMMARY FINANCIAL DATA

	2021	2022	2023	2024
Revenue (KRWb)	1	1	4	4
Operating profit (KRWb)	-3	-3	-3	-4
Net profit (adj) (KRWb)	-3	-10	-5	-4
EPS (adj) (KRW)	-503	-1,842	-648	-293
EPS (adj) growth (% y-y)	nm	nm	nm	nm
EBITDA margin (%)	-391.6	-184.4	-40.0	-82.3
ROE (%)	25.2	64.0	140.1	-18.2
P/E (adj) (x)	n/a	n/a	n/a	n/a
P/B (x)	n/a	n/a	n/a	2.3
EV/EBITDA (x)	n/a	n/a	n/a	n/a
Dividend yield (%)	n/a	n/a	n/a	0.0

Source: Company data, Samsung Securities

Profitability improvement through expansion of bioimaging CRO services: While global momentum is building toward the elimination of animal testing, widespread adoption of organoid-based imaging systems should remain limited in the near term due to a lack of standardized clinical protocols, high equipment costs, and infrastructure constraints across research facilities. IVIM's technology is uniquely suited to meet demand during this transitional phase, offering a practical bridge between traditional animal models and next-generation alternatives. The company aims to recognize revenue from 4-5 out of 5-6 total projects with Revvity by end-2026. Currently, over 10 live demonstrations are underway globally, primarily with leading universities, hospitals, and research institutes in Korea, China, the US, and Europe. IVIM is strategically shifting its CRO customer base from academic institutions toward biotech companies, enabling larger contract sizes and faster deal velocity.

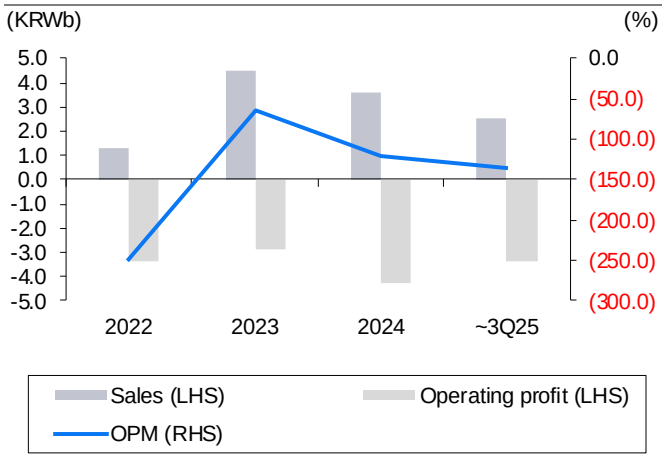
Financial position & risks: While earnings have lagged IPO targets, the challenge lies in timing, not direction. At end-3Q25, IVIM Technology held approximately KRW18b in cash and cash equivalents. Although a significant portion of shares (4.25m shares, or 28% of post-IPO float) remains subject to lock-up restrictions expiring three years after listing, the acquisition cost of these shares is roughly double the current price, significantly limiting near-term overhang.

Results

(KRWb)	2022	2023	2024	1Q24	2Q24	3Q24	4Q24	1Q25	2Q25	3Q25
Revenue	1.3	4.5	3.6	0.1	0.8	0.6	2.1	0.2	0.7	1.7
Intravital microscope	1.1	3.7	2.8	0.0	0.4	0.4	2.0	0.0	0.5	1.3
Imaging accessories	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CRO	0.2	0.3	0.4	0.0	0.3	0.1	0.0	0.1	0.1	0.1
Other	0.1	0.5	0.2	0.0	0.0	0.1	0.1	0.1	0.2	0.3
Gross profit	**0.2**	**1.4**	**1.3**	**-0.1**	**0.4**	**0.1**	**0.9**	**0.0**	**0.2**	**0.4**
Operating profit	**-3.3**	**-2.9**	**-4.3**	**-1.3**	**-1.0**	**-1.6**	**-0.4**	**-1.5**	**-1.2**	**-0.7**
Net profit (controlling)	**-9.7**	**-5.0**	**-4.0**	**-1.3**	**-1.0**	**-1.6**	**-0.1**	**-1.4**	**-1.2**	**-0.6**
Chg (% y-y)										
Revenue		236.0	-20.7					51.1	-10.8	177.5
Intravital microscope		247.9	-25.0					n/a	2.0	217.7
Imaging accessories		n/a	610.0					-100.0	n/a	235.9
CRO		58.8	57.3					68.6	-65.4	-10.6
Other		444.8	-47.2					171.3	499.4	126.8
Gross profit		793.0	-5.5					-60.6	-42.8	207.9
Operating profit		-12.8	48.3					15.7	17.0	-56.6
Net profit (controlling)		-48.2	-20.6					12.0	17.8	-63.6
Margins (%)										
Gross profit	**11.9**	**31.7**	**37.8**	**-92.4**	**44.4**	**21.8**	**46.1**	**-24.1**	**28.5**	**24.2**
Operating profit	**-248.9**	**-64.6**	**-120.9**	**-1322.0**	**-125.2**	**-271.9**	**-17.6**	**-1012.5**	**-164.1**	**-42.5**
Net profit (controlling)	**-727.7**	**-112.2**	**-112.3**	**-1264.7**	**-124.6**	**-270.9**	**-6.0**	**-937.9**	**-164.5**	**-35.6**

Source: QuantiWise, Samsung Securities

IVIM Technology: Sales and operating profit



Note: *1Q-3Q25

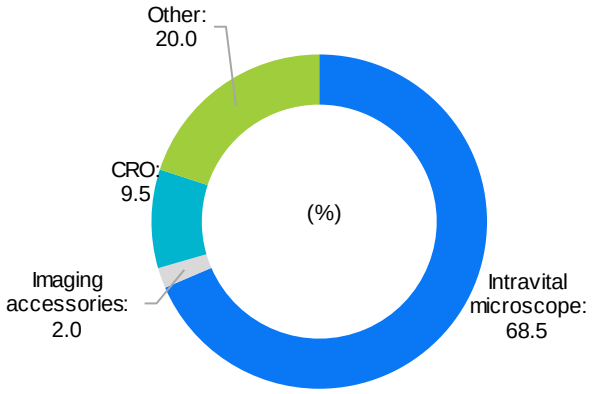
Source: Company data, Samsung Securities

IVIM Technology's microscope vs competing products

	Confocal/two-photon microscope	IVIM intravital microscope
Scanner	Resonance or Galvano scanner	Rotating polygon mirror scanner
Imaging speed	Slow (13-40 fps)	Fast (50-100 fps)
Observation target	Limited	Internal organs and tissues (over 30 types)
Technical support	X	O (Integrated bio-monitoring and maintenance)
User usability	Low (Professional skill required)	High (Standardized methods, easy to use)

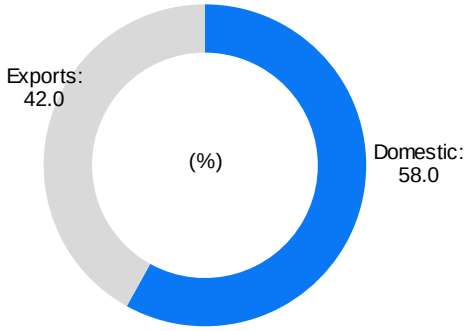
Source: Company data, Samsung Securities

Revenue mix, by product (1Q-3Q25)



Source: Company data, Samsung Securities

Revenue mix, by region (1Q-3Q25)



Source: Company data, Samsung Securities

IVIM Technology: Major supply contract disclosures

Date	Counterparty	Contract period	Contract size
Dec 2024	Scintica Instrumentation	Dec 2024	KRW840m
Apr 2025	KAIST	Apr-May 2025	KRW450m
Jun 2025	OncoMed Solutions (Germany)	May-Dec 2025	KRW370m
Aug 2025	Institute for Basic Science	Aug-Oct 2025	KRW450m
Sep 2025	Revvity (Hong Kong)	Sep-Nov 2025	KRW460m
Oct 2025	Neuroscience (Japan)	Oct-Dec 2025	KRW470m
Feb 2026	Revvity (Hong Kong)	Dec 2025 - Mar 2026	KRW540m
Feb 2026	Paralab SA (Spain) -> CBMSO	Feb-May 2026	KRW530m

Source: DART, Samsung Securities

IVIM Technology: Share lock-up status

Unlock date	Lock-up period	Number of shares	Portion of total (%)	Note
Aug 5, 2027	3 years	4,250,000	28.2	Largest shareholder and related parties

Note: Based on 3Q25 quarterly report

Source: DART, Samsung Securities

Income statement

Year-end Dec 31 (KRWb)	2020	2021	2022	2023	2024
Sales	**n/a**	**1**	**1**	**4**	**4**
Cost of goods sold	n/a	1	1	3	2
Gross profit	**n/a**	**-0**	**0**	**1**	**1**
Gross margin (%)	n/a	-23.3	11.9	31.7	37.8
SG&A expenses	n/a	3	3	4	6
Operating profit	**n/a**	**-3**	**-3**	**-3**	**-4**
Operating margin (%)	n/a	-508.1	-248.9	-64.6	-120.9
Non-operating gains (losses)	**n/a**	**0**	**-6**	**-2**	**0**
Financial profit	0	1	0	1	0
Financial costs	0	1	7	3	0
Equity-method gains (losses)	0	0	0	0	0
Other	n/a	0	0	-1	0
Pre-tax profit	**n/a**	**-3**	**-10**	**-5**	**-4**
Taxes	n/a	0	0	0	0
Effective tax rate (%)	n/a	0.0	0.0	0.0	0.0
Profit from continuing operations	0	-3	-10	-5	-4
Profit from discontinued operations	0	0	0	0	0
Net profit	**n/a**	**-3**	**-10**	**-5**	**-4**
Net margin (%)	n/a	-497.3	-727.7	-112.2	-112.3
Net profit (controlling interests)	n/a	-3	-10	-5	-4
Net profit (non-controlling interests)	n/a	0	0	0	0
EBITDA	n/a	-2	-2	-2	-3
EBITDA margin (%)	n/a	-391.6	-184.4	-40.0	-82.3
EPS (parent-based) (KRW)	n/a	-503	-1,842	-648	-293
EPS (consolidated) (KRW)	n/a	-503	-1,842	-648	-293
Adjusted EPS (KRW)*	n/a	-503	-1,842	-648	-293

Balance sheet

Year-end Dec 31 (KRWb)	2020	2021	2022	2023	2024
Current assets	**n/a**	**2**	**14**	**11**	**28**
Cash & equivalents	n/a	1	1	4	2
Accounts receivable	n/a	0	0	1	2
Inventories	n/a	0	1	2	3
Other current assets	n/a	0	11	5	21
Fixed assets	**n/a**	**5**	**5**	**6**	**7**
Investment assets	n/a	0	0	0	0
Tangible assets	n/a	5	5	5	7
Intangible assets	n/a	0	0	0	0
Other long-term assets	n/a	0	0	0	0
Total assets	**n/a**	**7**	**19**	**17**	**35**
Current liabilities	**n/a**	**15**	**37**	**1**	**2**
Accounts payable	n/a	0	0	0	0
Short-term debt	n/a	0	0	0	0
Other current liabilities	n/a	15	37	1	1
Long-term liabilities	**n/a**	**2**	**3**	**2**	**2**
Bonds & long-term debt	0	2	1	1	1
Other long-term liabilities	n/a	1	1	1	1
Total liabilities	**n/a**	**17**	**39**	**4**	**4**
Owners of parent equity	**n/a**	**-10**	**-20**	**13**	**31**
Capital stock	n/a	0	0	6	8
Capital surplus	n/a	0	0	31	52
Retained earnings	n/a	-11	-20	-25	-29
Other	n/a	0	0	1	1
Non-controlling interests' equity	**n/a**	**0**	**0**	**0**	**0**
Total equity	**n/a**	**-10**	**-20**	**13**	**31**
Net debt	n/a	16	18	-6	-20

Cash flow statement

Year-end Dec 31 (KRWb)	2020	2021	2022	2023	2024
Cash flow from operations	**0**	**-4**	**-4**	**-3**	**-7**
Net profit	0	-3	-10	-5	-4
Non-cash profit and expenses	0	1	8	4	2
Depreciation	0	1	1	1	1
Amortization	0	0	0	0	0
Other	0	0	7	3	0
Changes in A/L from operating activities	0	-2	-2	-2	-5
Cash flow from investments	**0**	**2**	**-11**	**6**	**-16**
Change in tangible assets	0	-1	-0	-0	-0
Change in financial assets	0	-0	-11	7	-16
Other	0	3	0	0	-0
Cash flow from financing	**0**	**1**	**15**	**-0**	**22**
Change in debt	0	17	13	-27	-0
Change in equity	0	0	0	38	22
Dividends	n/a	0	0	0	0
Other	n/a	-16	2	-10	-0
Change in cash	0	-0	-0	3	-1
Cash at beginning of year	0	1	1	1	4
Cash at end of year	0	1	1	4	2
Gross cash flow	**0**	**-2**	**-2**	**-1**	**-2**
Free cash flow	**0**	**-5**	**-4**	**-4**	**-7**

Financial ratios

Year-end Dec 31	2020	2021	2022	2023	2024
Growth (%)					
Sales	nm	nm	153.9	236.0	-20.7
Operating profit	nm	nm	nm	nm	nm
Net profit	nm	nm	nm	nm	nm
Adjusted EPS**	nm	nm	nm	nm	nm
Per-share data (KRW)					
EPS (parent-based)	n/a	-503	-1,842	-648	-293
EPS (consolidated)	n/a	-503	-1,842	-648	-293
Adjusted EPS**	n/a	-503	-1,842	-648	-293
BVPS	n/a	-2,001	-3,772	1,012	2,073
DPS (common)	0	0	0	0	0
Valuations (x)					
P/E***	n/a	n/a	n/a	n/a	n/a
P/B***	n/a	n/a	n/a	n/a	2.3
EV/EBITDA	n/a	n/a	n/a	n/a	n/a
Ratios (%)					
ROE	n/a	25.2	64.0	140.1	-18.2
ROA	n/a	-37.7	-74.6	-28.3	-15.6
ROIC	n/a	-52.0	-56.0	-40.9	-45.7
Payout ratio	n/a	0.0	0.0	0.0	0.0
Dividend yield (common)	n/a	n/a	n/a	n/a	0.0
Net debt to equity	n/a	-149.8	-88.9	-43.9	-64.8
Interest coverage (x)	n/a	-2.3	-1.6	-1.8	-23.4

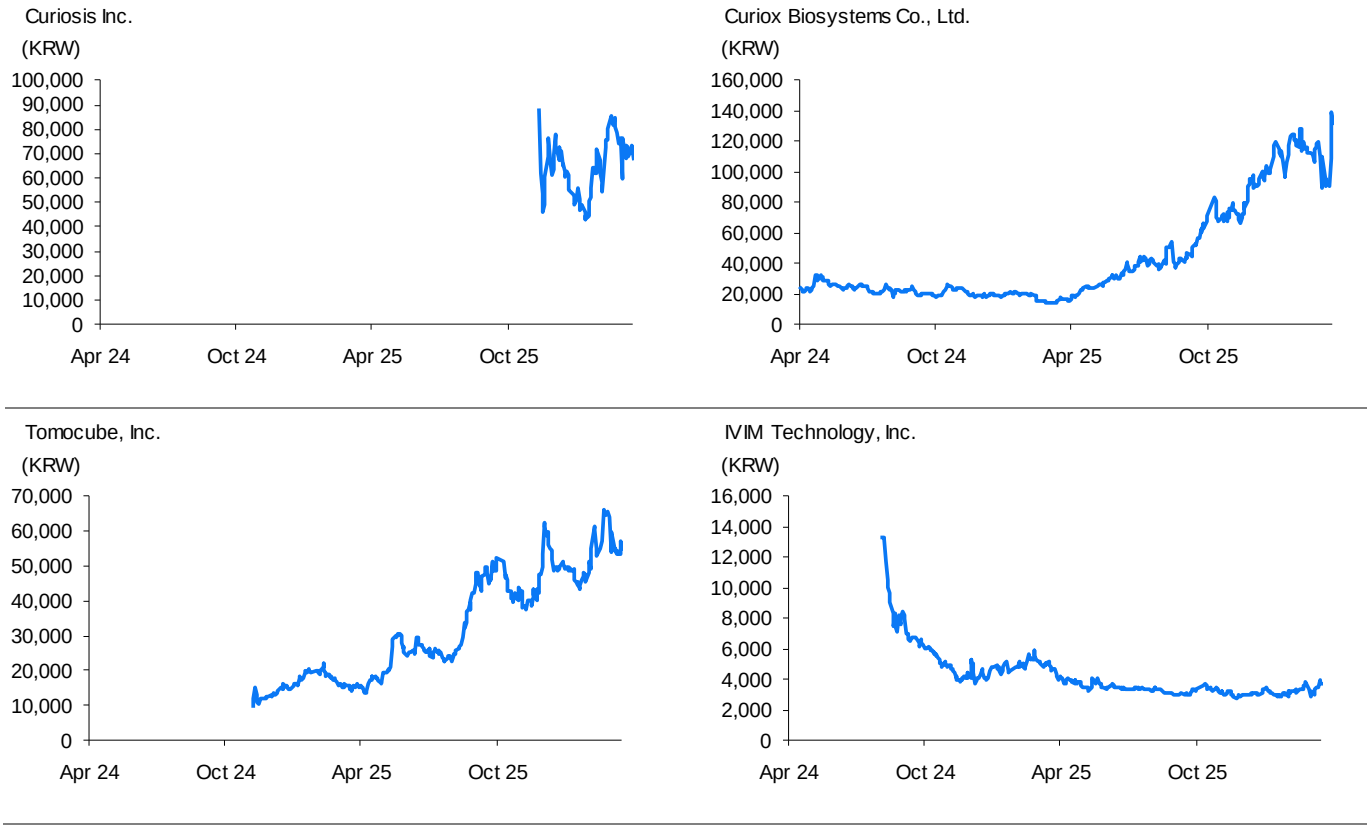
Note: *Excluding one-off items;
**Fully diluted, excluding one-off items;
***From companies subject to equity-method valuation

Source: Company data, Samsung Securities

Compliance notice

- As of 3/19 2026, the covering analyst(s) did not own any shares, or debt instruments convertible into shares, of any company covered in this report.
- As of 3/19 2026, Samsung Securities' holdings of shares and debt instruments convertible into shares of each company covered in this report would not, if such debt instruments were converted, exceed 1% of each company's outstanding shares.
- This report has been prepared without any undue external influence or interference, and accurately reflects the views of the analyst(s) covering the company or companies herein.
- All material presented in this report, unless specifically indicated otherwise, is under copyright to Samsung Securities.
- Neither the material nor its content (including copies) may be altered in any form, or by any means transmitted, copied, or distributed to another party, without prior express written permission from Samsung Securities.
- This memorandum is based upon information available to the public. While we have taken all reasonable care to ensure its reliability, we do not guarantee its accuracy or completeness. This memorandum is not intended to be an offer, or a solicitation of any offer, to buy or sell the securities mentioned herein. Samsung Securities shall not be liable whatsoever for any loss, direct or consequential, arising from the use of this memorandum or its contents. Statements made regarding affiliates of Samsung Securities are also based upon publicly available information and do not necessarily represent the views of management at such affiliates.
- This material has not been distributed to institutional investors or other third parties prior to its publication.

Target price changes in past two years



Rating changes over past two years (adjusted share prices)

Curiosis	
Date	2026/3/20
Recommendation	Not Rated
Target price (KRW)	n/a
Gap* (average)	
(max or min)**	
Curiox BioSystems	
Date	2026/3/20
Recommendation	Not Rated
Target price (KRW)	n/a
Gap* (average)	
(max or min)**	
Tomocube	
Date	2026/3/20
Recommendation	Not Rated
Target price (KRW)	n/a
Gap* (average)	
(max or min)**	
IVIM Technology	
Date	2026/3/20
Recommendation	Not Rated
Target price (KRW)	n/a
Gap* (average)	
(max or min)**	

Note: * [(average, maximum, or minimum share price over duration of target price minus target price) / target price] x 100%
** Maximum/minimum share price if new target is higher/lower than market close on the business day prior to target price change

Samsung Securities uses the following investment ratings*

Company

BUY	Expected to increase in value by 15% or more within 12 months and is highly attractive within sector
HOLD	Expected to increase/decrease in value by less than 15% within 12 months
SELL	Expected to decrease in value by 15% or more within 12 months

Industry

OVERWEIGHT	Expected to outperform market by 5% or more within 12 months
NEUTRAL	Expected to outperform/underperform market by less than 5% within 12 months
UNDERWEIGHT	Expected to underperform market by 5% or more within 12 months

* Note: Effective Jul 27, 2023, BUY, HOLD, and SELL criteria are based on expectations of share-price moves of 15% or more within 12 months

Percentage of ratings in 12 months prior to 2025.12.31

BUY(85.8%)·HOLD(14.2%)·SELL(0%)

Global Disclosures & Disclaimers

General

This research report is for information purposes only. It is not and should not be construed as an offer or solicitation of an offer to purchase or sell any securities or other financial instruments or to participate in any trading strategy. This report does not provide individually tailored investment advice. This report does not take into account individual client circumstances, objectives, or needs and is not intended as recommendations of particular securities, financial instruments or strategies to any particular client. The securities and other financial instruments discussed in this report may not be suitable for all investors. The recipient of this report must make its own independent decisions regarding any securities or financial instruments mentioned herein and investors should seek the advice of a financial adviser.

This report may not be altered, reproduced, distributed, transmitted or published in whole or in part for any purpose. References to "Samsung Securities" are references to any company in the Samsung Securities, Co., Ltd. group of companies.

Samsung Securities and/or other affiliated companies, its and their directors, officers, representatives, or employees may have long or short positions in any of the securities or other financial instruments mentioned in this report or of issuers described herein and may purchase and/or sell, or offer to purchase and/or sell, at any time, such securities or other financial instruments in the open market or otherwise, as either a principal or agent. Any pricing of securities or other financial instrument contained herein is as of the close of market for such day, unless otherwise stated. Opinions and estimates contained herein constitute our judgment as of the date of this report and are subject to change without notice.

The information provided in this report is provided "AS IS". Although the information contained herein has been obtained from sources believed to be reliable, no representation or warranty, either expressed or implied, is provided by Samsung Securities in relation to the accuracy, completeness or reliability of such information or that such information was provided for any particular purpose and Samsung Securities expressly disclaims any warranties of merchantability or fitness for a particular purpose. Furthermore, this report is not intended to be a complete statement or summary of the securities, markets or developments referred to herein.

Samsung Securities does not undertake that investors will obtain any profits, nor will it share with investors any investment profits. Samsung Securities, its affiliates, or any of its and their affiliates, directors, officers, employees or agents disclaim any and all responsibility or liability whatsoever for any loss (direct or consequential) or damage arising out of the use of all or any part of this report or its contents or otherwise arising in connection therewith. Information and opinions contained herein are subject to change without notice. Past performance is not indicative of future results. Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned in this report. For investment advice, trade execution or other enquiries, clients should contact their local sales representative. Any opinions expressed in this report are subject to change without notice and may differ or be contrary to opinions expressed by other business areas or groups of Samsung Securities. Any analysis contained herein is based on numerous assumptions. Different assumptions may result in materially different results. Samsung Securities is under no obligation to update or keep current the information contained herein. Samsung Securities relies on information barriers to control the flow of information contained in one or more areas or groups within Samsung Securities into other areas or groups of Samsung Securities. Any prices stated in this report are for information purposes only and do not represent valuations for individual securities or other financial instruments. Samsung Securities makes no representation that any transaction can or could have been effected at those prices and any prices contained herein may not reflect Samsung Securities' internal books and records or theoretical model-based valuations and may be based on certain assumptions. Different assumptions by Samsung Securities or any other source may yield substantially different results. Additional information is available upon request.

For reports to be distributed to US:

Securities research is prepared, issued and exclusively distributed by Samsung Securities Co., Ltd., an organization licensed with the Financial Supervisory Service of South Korea. This research may be distributed in the United States only to major institutional investors as defined in Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended, and may not be circulated to any other person otherwise. All transactions by U.S. investors involving securities discussed in this report must be effected through Samsung Securities (America) Inc., a broker-dealer registered with the U.S. Securities & Exchange Commission and a member of the Financial Industry Regulatory Authority/SIPC, and not through any non-U.S. affiliate thereof. The analysts listed [on the front of this report] are employees of Samsung Securities Co., Ltd., or a non-U.S. affiliate thereof, and are not registered/qualified as research analysts under applicable U.S. rules and regulations and may not be subject to U.S. restrictions on communications with covered companies, public appearances, and trading securities held by a research analyst account.

For reports to be distributed to UK:

This report is not an invitation nor is it intended to be an inducement to engage in investment activity for the purpose of section 21 of the Financial Services and Markets Act 2000 of the United Kingdom ("FSMA"). To the extent that this report does constitute such an invitation or inducement, it is directed only at (i) persons who are investment professionals within the meaning of Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2001 (as amended) of the United Kingdom (the "Financial Promotion Order"); (ii) persons who fall within Articles 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc.") of the Financial Promotion Order; and (iii) any other persons to whom this report can, for the purposes of section 21 of FSMA, otherwise lawfully be made (all such persons together being referred to as "relevant persons").

Any investment or investment activity to which this report relates is available only to relevant persons and will be engaged in only with relevant persons. Persons who are not relevant persons must not act or rely on this report.

For reports to be distributed to Korea:

This report is for private circulation only, not for sale, and is issued and distributed only to persons permitted under the laws and regulations of Korea.

For reports to be distributed to Singapore:

This report is provided pursuant to the financial advisory licensing exemption under Regulation 27(1)(e) of the Financial Advisers Regulation of Singapore and accordingly may only be provided to persons in Singapore who are "institutional investors" as defined in Section 4A of the Securities and Futures Act, Chapter 289 of Singapore. This report is intended only for the person to whom Samsung Securities has provided this report and such person may not send, forward or transmit in any way this report or any copy of this report to any other person.

Analyst certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issuers and no part of the compensation of such analyst(s) was, is, or will be directly or indirectly related to the inclusion of specific recommendations or views in this research report. The analyst(s) principally responsible for the preparation of this research report receives compensation based on determination by research management and senior management (not including investment banking), based on the overall revenues, including investment banking revenues of Samsung Securities Co., Ltd. and its related entities and has taken reasonable care to achieve and maintain independence and objectivity in making any recommendations.

Copyright © 2010 Samsung Securities Co., Ltd.. All rights reserved. This report or any portion hereof may not be reprinted, sold or redistributed without the prior written consent of Samsung Securities America Inc

Samsung Securities

SAMSUNG SECURITIES

Samsung Electronics Bldg., 11, 74-gil,
Seochodae-ro, Seocho-gu, Seoul, Korea 06620
Tel: 02 2020 8000 / www.samsungpop.com

Family Center: 1588 2323

Voice Of Customer: 080 911 0900

For more information,
please call our sales representatives:

LONDON

Samsung Securities Europe Limited
1st Floor, 30 Gresham Street, London EC2V 7PG UK
Tel. 44-207-776-4311
Fax. 44-203-837-9219

NEW YORK

Samsung Securities America Limited
1330 Avenue of the Americas. 10th Floor. New York,
NY 10019
Tel: 1-212-972-2454
Fax: 1-212-972-2704

HONG KONG

Samsung Securities (Asia) Limited
Suite 4511, Two International Finance Center,
8 Finance Street, Central, Hong Kong
Tel: 852-3411-3608
Fax: 852-2114-0290

BEIJING

Samsung Securities Beijing Representative Office
Rm. 910, The Exchange Building No 118 JianGuo Lu, Chao Yang District, Beijing, China
Tel: 86-10-6522-1855 (extension 7891)
Fax: 86-10-6522-1855 (extension 7889)

TOKYO

Samsung Securities Tokyo Representative Office
#106-8532 19F, Roppongi T-Cube 3-1-1,
Roppongi Minato-ku Tokyo, Japan
Tel: 81-3-6333-2952
Fax: 81-3-6333-2953

Member of
Dow Jones
Sustainability Indices
Powered by the S&P Global CSA