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Introducing the 2025 TabbFORUM NOVA Awards: Honoring Top Innovators Across Financial Markets



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The third annual TabbFORUM NOVA Awards honor the financial industry's ongoing commitment to technology-driven innovation by recognizing 40 organizations for their outstanding recent and sustained achievements. These selections from across the capital markets are the result of TabbFORUM research, led by contributing editor Jeffrey Kutler, with consideration given to nominations and



recommendations solicited from the community. It takes into account the role of innovation not only in an organization's performance, but also industry impact and leadership. In addition to the 40 NOVAs, 10 more are identified as innovators to watch.

McKinsey & Co. titled a <u>2024 report</u> "Unlocking Value from Technology in Banking," probing whether \$650 billion in total global spending – increasing at a faster rate than revenues (9% versus 4%) – pays off in productivity, competitive differentiation and other



measurable results. Another study, by Opimas, focusing on capital markets technology, projected an 8% annual rate of growth, from \$163 billion in 2023 to \$244 billion by 2028.

According to McKinsey, returns on such innovations as mobile apps and algorithmic trading have been difficult to quantify. At the same time, "the pace of innovation is rapid, and sustained investments in technology are required to meet customer needs and defend market share, in particular against nonbanks such as fintechs and Big Tech companies." The Big Techs have been anything but hesitant in allocating hundreds of billions in capital expenditures in the drive to master, or dominate, artificial intelligence.

Those who excel in finance have found a balance and point to results. Among the foremost tech- and innovation-driven companies, repeatedly standing out in TabbFORUM research, is Intercontinental Exchange. Ten markets across asset classes, including the New York Stock Exchange, plus six clearinghouses and multibillion-dollar data and mortgage technology businesses comprise what CEO Jeffrey Sprecher calls an "all-weather business model, which through an array of macroeconomic environments continues to deliver compounding growth." ICE has reported record revenues for 19 consecutive years.

ICE was hardly an outlier in growing total average daily volume 17% in <u>February</u> year-over-year, with record open interest, while energy ADV rose 23%. Periods of volatility and economic uncertainty are correlated with active trading and risk management, for which derivatives markets like those of Cboe, CME, Miami International Holdings and Tradeweb are well positioned.

Nasdaq, another perennial leader and profit-maker in market infrastructure, has gone "all weather" in its own way as its market technology business continues to expand, boosted by an <u>anti-financial crime</u> segment. A newcomer to the NOVAs, Switzerland's SIX Group, has become a pan-European power through acquisitions of Spain's BME and U.K.-based Aquis Exchange (pending), while touting its Swiss Digital Exchange (<u>SDX</u>) as "the world's leading financial market infrastructure for digital assets."

The digital-asset theme runs through both traditional finance ("TradFi") entities and more recently prominent innovators such as Chainlink (with its Cross-Chain Interoperability Protocol), Connamara Technologies (with novel tokenized markets among its customers), and Crossover Markets' CROSSx ECN trading model.

In Why We Must Innovate to Create the Financial Market Infrastructure of the Future, Depository Trust & Clearing Corp. CEO Frank La Salla wrote, "While technology will be the linchpin of innovation to a greater degree than in the past, not all innovation will be tech-enabled. True innovation involves reimagination and applying ingenuity to transform all aspects of a business, from operating models to processes, workflows and more."

THE 40 TABBFORUM NOVAS FOR 2025

- Bank of New York Mellon Corp.
- Bloomberg LP
- BMLL Technologies



- Broadridge Financial Solutions
- Cboe Global Markets
- Chainlink
- Circle Internet Group
- Clear Street Group
- CME Group
- Confluence Technologies
- Connamara Technologies
- Crossover Markets Group
- DataBP
- Depository Trust & Clearing Corp.
- <u>Digital Asset Holdings</u>
- Duco
- EDX Markets
- Exeqy
- IEX Group
- Imperative Execution
- Innovative Systems
- Intercontinental Exchange
- MarketAxess Holdings
- Miami International Holdings
- Nasdaq
- NICE Actimize
- n-Tier
- OneChronos
- OTC Markets Group
- PureStream
- QUODD
- S&P Global
- <u>S3</u>
- SIX Group
- SOLVE
- State Street Corp.
- Symphony Communication Services
- Tradeweb Markets
- <u>Trumid</u>
- Versana





Bank of New York Mellon Corp.

Between February and April last year, BNY announced strategic relationships with Microsoft in data and analytics, Nvidia for supercomputing and artificial intelligence, and Accenture in data management. In each case, BNY executives stressed client-facing outcomes – "innovative solutions and capabilities for our clients," as chief growth officer Akash Shah said of the Accenture alliance. When BNY's relationship with OpenAl commenced this year, the companies were expecting business benefits and learnings to flow both ways.

Further on the collaborative theme, Asian insurance giant AIA chose to transform its investment platform with BlackRock's Aladdin along with BNY's "specialized investment operations and data management services and technology to create a connected and scalable ecosystem," the companies <u>said in July</u>. The "new data-driven operating model," said Emily Portney, BNY's global head of asset servicing, "will deliver critical insights, elevate the client experience and improve operational efficiency."

BNY in itself is enough of an IT powerhouse that CEO Robin Vince has boasted of investing multiple billions annually in technology innovation, committed to a digital-asset strategy without expectations of near-term profitability, and said of AI in a Bloomberg TV interview: "It's going to create great opportunities for our client-facing businesses. We have the opportunity with our people to really help make their roles more efficient and to be able to focus them on serving our clients."

Two additions to senior leadership reflect the high standing of technology and innovation: Leigh-Ann Russell, formerly of BP, who is BNY's chief information officer and global head of engineering since September; and Carolyn Weinberg, who joined in February from BlackRock as chief solutions innovation officer. "Fostering BNY's culture of innovation and curiosity is essential," said CEO Vince, "and Carolyn's breadth of experience in product innovation, development and commercialization will enhance our ability to quickly grasp and cater to the biggest trends in capital markets." Weinberg commented, "Finding new ways to leverage platforms and data to create client-centric solutions is a growing part of what BNY's strategic pillar – 'be more for our clients' – means."



Bloomberg

Bloomberg LP

Financial information and media define the Bloomberg brand. A massive technology engine powers it. The enterprise employs more than 9,000 technologists, a force long overseen by Vlad Kliatchko, who was head of engineering and chief product officer before rising to CEO in 2023. More than 350 researchers and engineers are constantly exploring artificial intelligence tools and technologies. The organization is known for its pioneering work in natural language processing, large language models and other Al frontiers, not to mention quantitative finance and analytics innovations.

At the same time, Bloomberg maintains a sizable and leading-edge presence in financial market infrastructure and trading technology. As announced in January, the Qatar Central Bank adopted the Bloomberg Auction System for its primary dealer framework to streamline local currency debt issuance and liquidity management workflows. The QCB also implemented the Bloomberg AIM order and investment management solution, enhancing the bank's ability to manage the entire trade lifecycle with advanced analytics, optimized fiscal strategy and improved operational oversight. "The adoption of our solutions will enable QCB to enhance its operations, improve transparency and strengthen connectivity with the global financial community, further contributing to the growth of Qatar's financial market," explained Nicholas Bean, Bloomberg's global head of Electronic Trading Solutions.

BayernLB selected the B-PIPE market data feed and BVAL evaluated pricing service. That complemented a recent collaboration with the German bank's asset management arm, BayernInvest, which using Bloomberg Buy-Side Solutions spanning AIM, PORT Enterprise, and MARS (Multi-Asset Risk System) Collateral Management's integrated offerings. Bloomberg in February announced expansions of MARS Market Risk offerings to support clients' compliance with global buy-side derivatives risk regulations.

On the indexing front, Bloomberg introduced "blend indices," combining commodity and digital-asset components: Bloomberg Bitcoin and Gold Equal-Weighted Index (BBIG), and Bloomberg Dollar, Bitcoin and Gold Equal-Weighted Index (BBUG). "We expect the Bloomberg Bitcoin and Gold basket to be the first of many commodities and digital-asset blends as we see an increasing investor appetite for tailored indices that can target specific investment objectives and return profiles," said Jigna Gibb, head of commodities and crypto index products, Bloomberg Index Services.





BMLL Technologies

"We are approached by many companies building unique AI tooling for global markets," chief executive officer Paul Humphrey said in reviewing what he termed a game-changing year for BMLL. "They need curated, engineered and ready-to-use, time-series data at full Level 3 depth, because it contains every trading intention for 10 years." BMLL, a global company headquartered in the U.K. with a U.S. team, "added over 50 new trading venues globally as well as OPRA [Options Price Reporting Authority] data," Humphrey recounted. "For equities, BMLL now has 99% of global ADV [average daily volume] in our data warehouse, at full depth with best-in-class normalization. Our target remains MSCI Developed and Emerging economies. And in 2025 we will close out any remaining gaps."

Humphrey gave the example of market maker Optiver, getting past the traditional buyversus-build dilemma to where it can "buy to build – trusting BMLL's complete and accurate historical market data as the foundation on which to build their own products and strategies." Pat Cooney, managing director of Optiver Europe, stated, "The high quality of BMLL's data, their advanced analytics tools, and their best-in-class team have significantly improved our ability to generate insights that influence our strategies," producing benefits that "can extend beyond our firm and provide substantial value to other market participants as well."

Optiver led a \$21 million funding round last October – existing investors FactSet, Nasdaq Ventures and IQ Capital's Growth Fund participated, with additional investment from CTC Venture Capital – as Humphrey said, "We are poised to scale the business further, as we build out and scale our data feed business and futures coverage and wider product offering globally."

In January, BMLL announced a partnership with <u>Pico</u> that "allows quants and high-performance traders to streamline their workflows with a unified set of technologies as they move through their journey from research to testing and into production," said Jarrod Yuster, chairman, founder and CEO of the global technology and services infrastructure provider.

In February, Humphrey convened an inaugural Client Product Advisory Board meeting with about a dozen trading firms as founding members. They will have an opportunity to shape BMLL products, gain early access to beta releases and be in communication with BMLL product and engineering leaders, according to the announcement.





Broadridge Financial Solutions

In an April 2024 interview, Broadridge chief executive officer Tim Gokey said, "We intend to be a leader" in artificial intelligence. In a sense, Broadridge already was, having introduced BondGPT, powered by OpenAl's ChatGPT-4, almost a year before on the LTX corporate bond platform. The BondGPT+ enterprise version followed in October 2023, representing a second-generation "new standard for generative Al solutions in the financial industry by providing a single natural language interface for seamless access to much of the data used by busy fixed-income professionals," LTX CEO Jim Kwiatkowski explained.

Gokey, however, sought to make a point not just about a strategic objective, but also how Broadridge was pursuing it. Rather than hiring PhDs "to create the next large language model," the plan was to stay focused on specific opportunities in capital markets.

There was further elaboration in a white paper, *Efficiency Unleashed: Capital Markets Operations Reimagined with Generative AI.* Included was a description of OpsGPT, which, built on BondGPT design patterns, "is a GenAI- and LLM-powered application – a co-pilot for operations users, analysts and management teams to better manage operations across the post-trade lifecycle."

New OpsGPT functionality was introduced in January 2025, enabling users to generate insights and visualizations directly from their trade data using natural language, eliminating the need for data migration. Integrating the advanced post-trade analytics "delivers simplification and innovation, significantly improving risk management and operational efficiency, especially in response to growing regulatory demands," said head of international post-trade Danny Green. "The multilingual capabilities and seamless integration provide an accessible solution for broker-dealers and banks, allowing them to quickly access actionable insights without the complexity of traditional reporting tools."

In December, Broadridge announced an AI-powered algorithm insights service for NYFIX, said to be "the first and only solution of its kind, using advanced AI to leverage public and private data to understand the liquidity landscape, particularly potential dark fill location."

"Algo traders will now have a quantitative, data-driven service to power critical trading decisions," said George Rosenberger, head of NYFIX, Broadridge Trading and Connectivity Solutions. "By harnessing the power of AI and historical insights, we're giving our clients the tools they need to navigate complex markets with greater precision and confidence. This innovative solution not only optimizes trading strategies, but also reduces costs, making it an invaluable asset for the buy side."





Cboe Global Markets

Suddenly thrust from the Cboe board into the CEO seat in September 2023 when Edward Tilly resigned, Fred Tomczyk initiated a strategic review. It arrived at an emphasis on "core strengths in derivatives, technology excellence and product innovation" across one of the most extensive geographical and multi-product footprints in the global capital markets. Net revenues in 2024 were up 8%, to \$2.1 billion, and adjusted diluted earnings per share 10%, to \$8.61, both records.

"While the robust options volumes were a standout for 2024, the results were notable in that each category – Derivatives Markets, Data Vantage, and Cash and Spot Markets – contributed to the fourth quarter and full year growth," Tomczyk said. "We enter 2025 on solid footing, with a refined strategic focus and the financial flexibility to execute on our vision. We remain well positioned to benefit from the secular market trends to drive durable growth for shareholders."

With that, Tomczyk said, "I completed what I set out to do," and a search for a new CEO was underway. Tomczyk, a former TD Ameritrade president, expressed confidence in his senior team, which includes executive vice president Catherine Clay, head of global derivatives; global president David Howson; and EVP and chief operating officer Chris Isaacson, the architect of the integrated technology – now branded <u>Titanium</u> – derived from the Bats Global Markets platform that he oversaw before Chicago-based Cboe bought Bats in 2017.

Joining Cboe's growing global derivatives team this year, as head of U.S. Options, was Meaghan Dugan from the New York Stock Exchange. "Customer demand for accessing Cboe's derivatives markets and products has continued to grow rapidly," Clay commented, "and in many ways, our hiring mirrors our customers' evolving needs: expanding globally, while requiring tailored solutions for individual markets. Having local teams on the ground, supported by world-class research and content, is expected to further deepen our customer engagement and grow our global client base."

In February, Cboe joined the 24-hour trading bandwagon with an extended-hours plan for the U.S. EDGX Equities Exchange five days a week. The company also expanded its cloud data distribution with index datasets on Snowflake Marketplace. Adam Inzirillo, global head of Cboe Data Vantage, said "Cboe is uniquely positioned to deliver data and analytics from multiple markets around the globe . . . As customer demand for Cboe data continues to grow globally, we are excited to broaden our data distribution through the cloud and provide easier access to a wider base of market participants."





Chainlink

The workings of financial infrastructures or ecosystems are easily visualized through a legacy lens – the networks through which checks clear or stock sales are settled. Replicating that for digital or crypto assets may sound conceptually simple. But crossing from one blockchain to another, or between traditional and decentralized finance platforms? Not so much, though a host of TradFi and DeFi players have pursued solutions.

Positioning itself as a standard-setter and service provider, Chainlink bids to overcome those obstacles via what it touts as universal interoperability: It "connects existing systems to any public or private blockchain and enables secure cross-chain communication." Chainlink has supported organizations like DTCC, Euroclear and the Swift messaging network in their quests for interoperability, while also counting cryptonatives such as Coinbase, Fireblocks and Ripple among those it has partnered with.

As described in a 2023 article on DTCC's website, Swift "explored standardization in blockchain interoperability by showcasing how financial institutions and FMIs [financial market infrastructures] can utilize their existing Swift connection in combination with Chainlink to instruct the transfer of tokenized assets across public and private blockchains. Chainlink CCIP was used on the back end by Swift to facilitate secure crosschain messaging and token transfers, while DTCC served as a token issuer and central securities depository."

<u>CCIP</u>, the Cross-Chain Interoperability Protocol, "enables developers to build secure applications that can transfer tokens, messages (data), or both tokens and messages across chains." It was the "interoperability layer" of DTCC's <u>Smart NAV pilot</u> with major asset managers.

In a <u>January review</u> of business progress, Chainlink co-founder Sergey Nazarov said that in 2024 "we continued to solidify our lead in powering the majority of DeFi. We also saw a huge amount of adoption in the capital markets . . . The value of the Chainlink standard for the global financial system is that it creates highly reliable agreements and transactions that are fundamentally better than what currently exists."





Circle Internet Group

Launched in 2013, and with venture capital backing from Goldman Sachs among others, Circle assembled a range of capabilities that placed it in the forefront of cryptocurrency and blockchain innovation. With institutional-grade ambitions, the company prioritized obtaining regulatory approvals, starting with a New York State Bitlicense in 2015. Circle is licensed on multiple continents, meeting, for example, EU Markets in Crypto Assets requirements in 2024 and, as of February, those of the Dubai Financial Services Authority. Today its USDC is at the head of the regulated stablecoin pack, making tangible a vision stated by co-founder, chairman and CEO Jeremy Allaire: "If you could take what we think of as money, make it digital and available on the internet, then that would dramatically change the way we use money and open up opportunity around the world. That's the idea behind Circle."

In February, according to CoinDesk Data, total stablecoin market capitalization rose 4.02%, to an all-time high \$226 billion. USDC's rose 6.46%, to a record \$56.6 billion, "aided by strong demand within the onchain ecosystem – with the number of networks supporting USDC surpassing 100." USDC's own annual State of the USDC Economy report in January said its 78% growth in circulation outpaced all other large, global stablecoins, as all-time transaction volume surpassed \$20 trillion, and November 2024 alone saw \$1 trillion. A factor in the growth is activity on the Binance exchange, with which Circle inked a strategic partnership in December.

"USDC has become a crucial bridge between traditional and digital finance, enabling real-time, low-cost value exchange that expands economic opportunity on a global scale," Allaire commented. Dante Disparte, chief strategy officer and head of global policy, noted, "Regulators around the world are now enshrining the principles of trust, transparency and financial integrity that Circle has championed since inception. This progress not only strengthens the regulatory clarity for stablecoins but also ensures that digital dollars like USDC serve as a force for global economic inclusion."

In January, Circle announced the acquisition of <u>Hashnote</u> and its USYC, the largest tokenized money market fund. The result of the integration: "Cash and yield-bearing short-duration Treasury bill assets become fungible and convertible at the speed of blockchains and crypto capital markets," Allaire said. "This is a huge unlock for a market that is increasingly being driven by institutional adoption, and where participants increasingly expect market structures that are common in TradFi."





Clear Street

Chris Pento and his Clear Street co-founders envisioned a modernized brokerage ecosystem featuring cloud-native clearing and custody. The original mission was essentially accomplished by the time Pento, after six years with the firm, stepped aside at the end of 2024. Under the new CEO, the former Cboe Global Markets chief executive Edward Tilly, who joined Clear Street as president in 2023, momentum continues toward the goal of "a single platform for every asset class, in every country and in any currency." With over 600 institutional clients, Clear Street is processing around 3.5% of daily notional U.S. equities volume.

Clear Street's acquisition last year of the <u>Fox River</u> algorithmic trading business from Instinet – a transaction advised by its own Clear Street Investment Banking – "adds another key component to our value chain, particularly for clients who are quantitatively focused, and fits perfectly with our strategy to redefine service and tech functionality across the brokerage ecosystem," Pento said.

November saw the launch of <u>Clear Street Equity Research</u>, which, Tilly stated, "complements our Equity Capital Markets, Debt Capital Markets, M&A Advisory and Corporate Access offerings and further builds out Clear Street's value proposition, particularly for our expanding base of opportunistic hedge fund clients."

After obtaining Financial Conduct Authority approval, Clear Street became one of the select Category 1 members of the London Metal Exchange, continuing its march toward what Tilly termed "empower[ing] clients to access and trade all products in all markets around the world." Jacinda Fahey was appointed CEO of UK and Europe, and other senior hires were announced in February, as was the appointment of Goldman Sachs veteran John Levene as head of Institutional, overseeing the firm's prime brokerage business.





CME Group

The largest derivatives market operator shared in the transaction growth and profitability that many of its peers enjoyed. CME Group logged a record \$6.1 billion in revenue last year, 10% over the 2023 figure, while operating income, at \$3.9 billion, jumped 14%. Chairman and CEO <u>Terry Duffy</u> declared it "the best year ever . . . With volume growth across every asset class, we hit new records in interest rates, including U.S. Treasury and SOFR complexes, as well as in agricultural, foreign exchange and metals markets."

Fourth-quarter average daily volume of 25.5 million contracts was in line with fourth-quarter 2023, including non-U.S. ADV of 7.6 million contracts, up 5% year-over-year.

There was also in the fourth quarter "a 6% increase in revenue, adjusted net income and adjusted earnings per share," Duffy continued. "As we look ahead amid continuing economic and geopolitical uncertainty, we will continue to serve our global clients by providing the products, services and efficiencies they need to manage risk and pursue opportunities to meet their business needs."

On the product development front, the company announced <u>Term €STR Reference Rates</u>, and for January launch, <u>mortgage rate futures</u> and a 1-ounce <u>gold futures contract</u> to meet surging retail demand. Select CME futures began rolling out on <u>Robinhood</u> in January; <u>options on Bitcoin Friday futures</u> were introduced in February, <u>Solana futures</u> in March.

Crypto derivatives average daily volume in 2025 through February, 202,000 contracts, was up 73% year-over-year. Duffy said in the February 12 earnings call that there is appetite for more crypto products, but he was awaiting clarity from regulators on whether securities law may apply.





Confluence Technologies

Last July, Confluence announced an expansion of <u>Style Analytics</u> in Europe, picking up marquee clients including Santander Asset Management UK, Norwegian wealth management firm Formues, Rathbones, and the Swedish Fund Selection Agency. It was the latest market validation of the factor analysis offering that supports manager due-diligence and fund selection and that has become emblematic of Confluence's technology innovation and global reach. The Pittsburgh-based investment-management solutions provider has over 750 employees, 15 offices, and more than 1,000 clients in 40-plus countries.

The European wins were "a testament to the robustness of our solution for asset managers and fund selectors globally, helping them gain deeper insights into their portfolios to differentiate their investment strategy, manage risk, and perform manager due diligence and peer analysis," said Confluence Analytics managing director Damian Handzy.

Style Analytics pre-calculates exposures on over 130 factors for more than 28,000 funds globally "to provide impactful and intuitive visual analyses," Confluence further explained. "Fund managers can leverage the platform to benchmark against competitors, monitor and evaluate risk, and differentiate their investment strategy from prospects. Fund selectors benefit from evaluating managers, finding comparable or alternative investment styles, and assessing style drift."

It also makes claims for Style Analytics Fixed Income as "a game-changing technology that enables fund selectors to assess fixed-income exposures with the same clarity and rigor as equity holdings-based analysis. It eliminates traditional data collection challenges and provides unparalleled transparency into portfolio exposures across OTC derivatives, yield curves, duration distributions, and credit ratings," and its "Fixed Income Fund Selector directly addresses critical gaps in the capital markets, particularly in fund selection and oversight."

A year ago, MSCI ESG Research data was integrated into Style Analytics to address "the complex challenge of making informed decisions that align with [users'] ESG investing objectives," Handzy said. "With a robust platform for comprehensive ESG data analysis, their ability to compare and enhance portfolios and funds effectively is greatly enhanced." In November, Confluence's Evaluated Fixed Income Pricing data feed was made available on Snowflake Marketplace, "enabling easy integration of our data and services into clients' platforms while benefiting from Snowflake's scalability and security," said Clinton Moseley, managing director, global data services and data governance.





Connamara Technologies

What do Interactive Brokers' ForecastEx predictions exchange, Brazil's BEE4 tokenized stock market, the Zero Hash crypto and stablecoin infrastructure platform, and former FTX US president Brett Harrison's ArchitectX perpetual futures exchange have in common? Besides pushing various new-market frontiers, all use Connamara Technologies' EP3 exchange and clearing technology.

Founded in 2022, Austin, Texas-based Connamara is the company behind EP3, the fully integrated exchange platform that was conceived and incubated at Connamara Systems. That company, since 1998, has delivered software engineering services, custom solutions and exchange technology to capital market participants including global exchanges, swap execution facilities, hedge funds, trading firms, market makers and more. CEO Jim Downs – co-founder with CFO Maureen Downs – worked 17 years as a Chicago Board Options Exchange market maker and Chicago Board of Trade futures trader before starting Connamara Systems. Experience with traditional markets and EP3's fully integrated technology propelled EP3 to become a go-to vendor for startup marketplaces.

A confluence of 2024 events put a brighter spotlight on Connamara. Zero Hash chief client officer Adam Leaman in October praised Connamara's "deep technical expertise and market knowledge," adding that its "ability to adapt and evolve has played a pivotal role in our success."

Connamara head of growth Daniel Davis points out that EP3 is the engine behind the only two U.S. designated contract markets (DCMs) approved last year and the majority of those waiting for Commodity Futures Trading Commission approval.

ForecastEx, one of the approved DCMs, was "impressed with Connamara's ability to meet our exacting requirements with EP3 and deliver exchange and clearinghouse technology for an entirely new market," said David Downey, CEO of the Interactive Brokers Group subsidiary, which offered contracts on the presidential election outcome. "As ForecastEx grows, we expect to lean on the EP3 platform and team to introduce more innovative features for our customers."

"While you may not recognize the name EP3 just yet," Jim Downs said, "you'll certainly recognize our impact. Whether you placed a trade or watched from afar, the 2024 election proved our technology's resilience and our team's commitment to deliver seamless, high-volume processing at every turn for future predictive events."



CROSSOVER

Crossover Markets Group

The CROSSx platform is Crossover Markets' bid to bring the high-performance electronic communications network (ECN) model into institutional trading of digital assets. To lower costs as volumes were rising, a <u>tiered commission structure</u> took effect January 1. Monthly volume totals include making and taking, with commissions based on total combined trading activity; and USDT/USD and USDC/USD trades – the two biggest stablecoin pairs – remained commission-free for takers.

"Retail brokers and industry participants without direct market access have faced significant fee pressure on their treasury trades to support stablecoins, with spreads and fees charged by payments providers and exchanges sometimes calculated in whole percentage points," Crossover co-founder and CEO Brandon Mulvihill noted last October. "Spreads across a range of pairs on our CROSSx crypto ECN are arguably the best in the world for retail trading . . . In addition to tight pricing, CROSSx also addresses the need for advanced best execution practices. Crossover looks at price, size, time and several behavioral characteristics of each market maker and re-ranks every market maker on each trade, in real time. These innovations foster a fairer and more competitive environment."

Crossover raised \$12 million in a Series A round last June, led by Illuminate Financial and DRW Venture Capital, "at a time when institutional market structure is changing in digital assets," Mulvihill said. "Prime brokerage and central clearing models are advancing, creating fungibility and exposing execution venues that hold clients captive," a contrast with "strategic shareholders who share our vision and passion to create the world's leading execution-only trading venue for digital assets."

A strategic partnership announced March 6 resulted in CROSSx's integration with crypto-asset custodian BitGo and its Go Network clearing solution.

"Institutions operating in the digital asset market demand features that mirror the sophistication of traditional finance while accommodating the unique requirements of crypto," Mulvihill wrote in a February e-Forex article. "These include ultra-low-latency execution, deep liquidity and flexible infrastructure. However, meeting these demands is no small feat, particularly in a market where volatility, fragmented liquidity and regulatory uncertainty abound."





DataBP

Market data and index providers – exchange operators CME, ICE, LSEG and TMX among them – turn to DataBP to support commercial data relationships, licensing, reporting, billing and compliance. Despite the sophistication of markets and data services, their associated administrative and licensing practices became outdated and in need of the efficiencies and streamlining that DataBP's software-as-a-service "digital ecosystem" delivers, according to Mark Schaedel, CEO of the 12-year-old company. The Customer Licensing Management System, for one, is a friction-reducing hub for managing the lifecycle of a market data product, "allowing clients to make quick decisions and generate agreements almost instantly."

With the announcement of a customer relationship with <u>Miami International Holdings</u>, MIH executive vice president and chief information officer Doug Schaefer said, "Utilizing DataBP's software supports MIH's commitment to providing top-tier service for our market data customers . . . DataBP's market data expertise is invaluable as we meet the needs of our growing client base while optimizing our internal processes."

"Public cloud adoption provides greater distribution and commercial flexibility and a chance to hit reset on the end-user relationship with modern distribution models," said a 2023 report on the market data value chain from DataBP and Quinlan & Associates. "It enables more direct distribution capabilities, providing total flexibility in product creation, along with more dynamic packaging and more responsive control . . . The increasing relevance of AI and the appetite to improve intellectual property protection through strategies such as digital rights management further underscore the opportunities presented by cloud technologies."

Schaedel weighed in on the February 2025 Market Structure Partners "There's No Market in Market Data" report, writing on LinkedIn: "In reality it is the primary exchanges that provide the price formation used throughout the rest of the value chain, including by other trading venues that reference the price formation from the primary exchanges, without incurring any of the substantial costs of running a price forming venue. Other trading venues pay market data licenses to reference the product of the price formation, but the costs of these pale in comparison to the costs incurred to run a primary venue."





Depository Trust & Clearing Corp.

The SIFMU designation (Systemically Important Financial Market Utility) was created by the Dodd-Frank Act of 2010. DTCC, one of the <u>select few</u>, could have been the prototype based on the accomplishment of its first mission in the 1970s: resolving a Wall Street back-office paperwork crisis. That earned for the organization the status of "plumbing," a descriptor that, if literally accurate, did not do justice to its heroism or to the technology that it brought to the task – rudimentary compared to what came later, but foreshadowing a long-term, un-utility-like commitment to modernization.

Recent and ongoing priorities such as <u>T+1</u> securities settlement and the U.S. Treasuries <u>clearing mandate</u> are table stakes. DTCC pushed the innovation envelope in the last decade, getting out in front of even some major banks in exploring and experimenting with distributed ledger technology.

Following the 2023 acquisition of digital-asset infrastructure developer <u>Securrency</u>, the <u>DTCC Digital Assets</u> business was unleashed, headed by managing director Nadine Chakar, who was CEO of Securrency and head of State Street Digital before that. The unit includes a sandbox program, <u>Digital Launchpad</u>, and <u>ComposerX</u>, "a complete, end-to-end suite for managing digital assets through their full lifecycle – including issuance, distribution, servicing and reporting."

DTCC takes "a 'disrupt ourselves first' mentality when it comes to blockchain technology," Frank La Salla, who as president and CEO since 2022 carried forward momentum established by his predecessor Michael Bodson, wrote in a World Economic Forum article. "We've embraced this mindset by rallying the industry around the need to establish the critical building blocks of a sustainable digital-asset ecosystem."

La Salla sees financial market infrastructures playing a bigger role "in driving the acceptance and adoption of tokenized assets." Over time, as artificial intelligence "is part of a larger and longer-term industry transformation, FMIs need to serve as early adopters to define and drive market transformation."



Digital Asset

Digital Asset Holdings

At its start in 2014, Digital Asset represented a significant early stake in blockchain technology's financial- and capital-market business potential. It has since established itself as a software innovator, operator and advocate of financial ecosystem transformation. Its Daml smart contract language enabled distributed and synchronized, institutional-grade blockchain applications. They interoperate over the Canton Network, billed as "the first privacy-enabled open blockchain network tailored for institutional assets, built to unlock the potential of synchronized and connected financial markets."

"Only the Canton Network enables participants to safeguard permissions, exposure and interactions across the network, to comply with security, regulatory and legal requirements," the company said in May 2023, when a sizable group of traditional institutions and digital-asset players had already signed on, and Deutsche Börse Group's D7 post-trade platform and Goldman Sachs' GS DAP were cited as capable connectors to the "network of networks."

What may then have appeared abstract or aspirational was far more concrete by March 2024, when "the most comprehensive blockchain pilot to date for tokenized real world assets" was <u>declared complete</u>. Seamless interoperability was demonstrated across 22 distributed applications (dApps) in the capital-markets domain, with over 350 simulated transactions successfully executed. Fifteen asset managers, 13 banks, four custodians, three exchanges and one financial market infrastructure (Depository Trust & Clearing Corp., an early Digital Asset shareholder) participated.

That was "an important milestone," said Digital Asset co-founder and CEO Yuval Rooz. "Canton allows previously siloed financial systems to connect and synchronize in previously impossible ways while abiding by the current regulatory guardrails."

Digital Asset and DTCC announced completion of a U.S. Treasuries distributed-ledger collateralization pilot <u>last September</u>. Digital Asset, Euroclear and other collaborators <u>in October</u> reported a successful pilot to tokenize gilts, Eurobonds, and gold.

Canton-connected platforms have been responsible for 57.5% of the \$8 billion of digital bonds issued during the last five years, according to a <u>January statement</u>, reflecting Canton's "leading position as the go-to public chain for tokenizing assets with privacy."

When Circle Internet Group in January <u>acquired Hashnote</u> and its USYC tokenized Treasury and money market fund, which was on the Canton blockchain, Circle said it would deploy its USDC stablecoin on Canton. "For over a decade, I have championed the opportunity for traditional finance to be made more efficient and resilient by leveraging public blockchains," remarked Don Wilson, founder and CEO of trading firm DRW, Digital Asset co-founder and backer of Hashnote.



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Duco

In July last year, Duco announced an "end-to-end <u>reconciliation capability</u> for unstructured data." There was no catchy product name, and the narrative was not oversimplified, because the problem solved was anything but simple. "This addresses a major pain point for capital markets firms," Duco said, "by enabling them to automate the extraction and processing of unstructured data formats. Doing so will unlock enormous efficiencies and cost savings by removing the need for multiple point solutions and slow, risk-prone manual keying of data between systems."

It was described by CEO Michael Chin as the first major milestone in the integration of Metamaze, which Duco had acquired earlier in the year, whose artificial intelligence and no-code techniques – adaptive intelligent document processing – could supercharge the ingestion of both structured and unstructured data. In other words, it was in Duco's enterprise data automation sweet spot, in keeping with the efficiency, scalability and rapid deployment that are Duco hallmarks.

"We're solving a huge problem for the industry, one that clients have repeatedly told us lacks a robust and efficient solution on the market," stated Chin, who succeeded the founding CEO, Christian Nentwich, in January 2024. "They can now ingest, transform, normalize, enrich and reconcile structured and unstructured data in Duco, automating data processing throughout its lifecycle.

"They also benefit from Duco's true no-code, SaaS advantage," Chin continued, "as well as our security credentials. Our clients have been very enthusiastic about this new offering, with some already signed up to automate complex reconciliation use cases." Nentwich, who remains a director, led an Innovation Day panel discussion and noted that 80% of enterprise AI projects fail, double the rate of IT projects in general. "One thing that's hard about AI still is that it gets super technical quickly," he said. "That's difficult for the people who have the business problems to understand."

Outside of the super technical, Duco joined the <u>United Nations Global Compact</u> business-responsibility initiative. "As a private company, we're not obligated to report on ESG matters, but we take our role in society very seriously and we're committed to making a positive impact on our environment and communities," said Danielle Price, CFO and head of sustainability. "This is true across the organization, from our exec team through to our passionate engineers who are constantly making improvements to our platform, reducing our impact on the environment."





EDX Markets

A February 24 <u>Bloomberg headline</u> confirmed what many in the trading and crypto-asset worlds had suspected: Citadel Securities was plotting its entry into crypto. But the market-making giant and its founder, hedge fund titan Kenneth Griffin, were never not looking. Citadel Securities was a charter shareholder, in a group that also included Charles Schwab and Fidelity, of EDX Markets. The institutional digital-asset trading venture was formed in 2022, with ex-Citadel Securities executive Jamil Nazarali as CEO.

While crypto product prices and market sentiment went through a few cycles since, EDX stayed on course. Trading was underway by June 2023, coinciding with additional funding and new investors. The Singapore-based EDXM Global settlement platform was live as of May 2024, an international expansion milestone "built on cutting-edge technology, rigorous compliance, and an unwavering commitment to customer service," Nazarali said. "We believe we have a unique opportunity to set the precedent for centrally cleared trading venues in the digital asset space – and we don't take that responsibility lightly," he wrote in an online post.

Last December, Nazarali became executive chair and was succeeded as CEO by Tony Acuña-Rohter, also head of EDX Clearing, who was chief technology officer since 2022 and CTO of Cboe Digital's ErisX before that. In late February, when EDX added new currencies to its menu, Acuña-Rohter told CoinDesk, "From the outset, we were designed and built for institutions for exactly what's happening right now. We were quite fortunate because FTX happened, crypto winter followed, which gave us two years to build out our technology. Now we have this company that's ready to absorb all the new entrants from traditional finance."

In <u>Inside EDX's 2025 Roadmap</u>, Acuña-Rohter outlined a few growth vectors, including "increasing the number of market makers and liquidity sources on our platform. This will deepen the trading pool, enhance price discovery and create a more efficient market ecosystem overall, benefiting everyone from established institutions to newer firms serving the retail community . . . We are actively planning to add support for over a dozen new coins in 2025 alone."





Exegy

Market data and trading systems are capital-market essentials. Exegy brings underlying technology that sets it apart in the vendor crowd. The St. Louis-based company is noted for its more than 175 patents and FPGA (field-programmable gate array) applications that power ultra-low latency execution. A record-low actionable latency of 13.9 nanoseconds, in a collaboration with AMD, was but one of the contributors to Exegy's David Taylor being named Chief Executive of the Year in the 2025 FOW International Awards. Long associated with Washington University of St. Louis, where he earned computer science degrees, Taylor played a leading role in intellectual property and research-and-development at Exegy, where he was chief technology officer for 18 years before becoming CEO in March 2023.

Key business moves included the acquisitions – and, critically, the subsequent integrations – of <u>Vela Trading Systems</u> in 2021 and <u>Enyx</u> in 2022. "We brought together not only the technology, but also the cultures and processes that enable us to bring the most value to our clients," Taylor said last September in a "new brand" kickoff for Exegy.

Enyx, an FPGA specialist, was core to the nxFramework development environment for inhouse trading engines, order execution systems, pre-trade risk check gateways, and custom projects. The framework won Best New Technology in the 2024 American Finance Technology Awards, hosted by Waters Technology. The standardized development method "is platform-agnostic and allows our clients to build FPGA applications much more quickly and easily than ever before," commented Olivier Cousin, director of FPGA Solutions.

In November, building on its Canadian market data offering, Exegy announced expanded coverage of its nxAccess trading engine to support all Canadian equities exchanges. "It is the only off-the-shelf, FPGA tick-to-trade solution that enables clients to achieve operational consistency and efficiency across North American markets," the company said.





IEX Group

The team that came out of Royal Bank of Canada to launch IEX – an alternative trading system starting in 2013, becoming a national equities exchange three years later – disrupted the status quo by prioritizing execution quality and a fair playing field for investors. Led since inception by CEO Brad Katsuyama, IEX has made a mark arguably greater than its share of U.S. exchange volume, recently between 3% and 4%. "We are known for our advocacy and transparency on key market structure issues, from market data to exchange business models," the company says. Research <u>published last September</u> showed IEX to be "a top-three displayed venue and still first in performance . . . IEX now delivers 1 of every 10 stable near-side exchange trades, despite being just 4.2% of On-Exchange-At-NBBO volume."

Business analytics head Sam Stevens posted in December that IEX expanded its exchange midpoint intraday market share in single stocks by 20% from earlier in the year "without any degradation" in fill quality; "if anything, midpoint markouts are better than ever." And in February came an analysis of "how we're bucking the trend of declining displayed liquidity," as the quoting metric of "% Time on Both Sides of the NBBO in [Russell 3000] names" continued to grow while the quote presence of other non-primary listing maker-taker exchanges steadily declined. "This means that IEX increasingly has displayed liquidity when other exchanges do not," and at "a materially lower fee to remove displayed liquidity" than the competitors'.

Next up is IEX Options, a work in progress <u>announced September</u>, when president Brian Harkins said, "We are focused on understanding the challenges of our members and having discussions with market participants to guide our entry into the options market. IEX's experience and expertise in understanding the needs of liquidity providers provides a great foundation as we begin to offer options market makers a set of tools designed to drive performance."

Katsuyama noted, "IEX spent the last decade innovating to build technology that is designed to protect liquidity providers, and we have now added a team of leaders with deep multi-asset expertise that can help guide IEX through our next stage of growth." Conversations with market makers "underscore[d] the opportunity for us to deepen our relationships with clients and to further improve execution quality in U.S. markets by expanding into options."



IMPERATIVE EXECUTION

Imperative Execution

A <u>Coalition Greenwich report</u> last fall described alternative trading systems as a source of "much-needed innovation" in equities trading. It singled out Imperative Execution's <u>IntelligentCross</u> as a leading example (also mentioned were <u>OneChronos</u> and <u>PureStream</u>) of "winning over the hearts of market-savvy buy- and sell-side firms" because of the ability to innovate. "ATSes are incubators in a market structure laboratory, with less stringent rule sets than exchanges," said the report's author, senior analyst Jesse Forster.

By the design of Imperative Execution founder and CEO Roman Ginis, IntelligentCross was an early mover some seven years ago with artificial intelligence and continues to be a testament to the technology's ability to deliver results. In May last year, regarding the predictive Intraday Optimization model, Ginis called it "a leap forward, incorporating our machine learning in real time, to adapt even faster to opportunities for our subscribers' orders due to nuanced changes in individual stock behaviors. The net result is: more liquidity, plus less impact, equals better performance." The expansion of liquidity was made possible by the platform's evaluating market conditions and self-optimizing quickly and continuously over 66 million times per day.

"Investors should not have to choose between liquidity and performance," added Ginis, a computer scientist and experienced quantitative trader. "We are always looking for ways to deliver scale and yet still minimize market impact."

Data recently posted for IntelligentCross showed \$27 billion in daily trades and better prices than the exchanges' 6.4 million times per day.

Two managing director hires over the past year were <u>John Bajus</u>, most recently head of Americas execution sales at Instinet, as MD for business development; and <u>Keith Fortier</u>, formerly of BMO Commercial Bank and Clearpool Group, as MD of operations, a newly created position.





Innovative Systems

Long-established enterprise and database technology vendor Innovative Systems is making significant strides in its FinScan anti-money laundering, customer due diligence and related solutions, which are used by hundreds of organizations worldwide. FinScan Marketplace was introduced in December with the goal of "remov[ing] the complexity of AML compliance by bringing everything organizations need into one unified platform," said Innovative Systems chief marketing officer Deborah Overdeput. "This launch reflects our commitment to delivering solutions that simplify processes, empower compliance teams to work smarter, and ensure organizations remain vigilant and fully aligned with evolving regulatory requirements in a rapidly changing landscape."

Customers can access a comprehensive suite of tools, including sanctions screening, KYC (know your customer) checks, adverse media screening, payment screening and risk scoring. At the heart of the system is a unified case management system, which integrates critical AML processes into a cohesive workflow.

In a FinScan poll of more than 200 compliance professionals, the top KYC onboarding challenge was customer due diligence (43%), followed by customer data quality (35%). A recently expanded KYC solution addresses these issues while bringing financial institutions closer to adopting perpetual KYC (pKYC) by continuously monitoring and holistically viewing customer risk. This is accomplished with dynamic risk calculations from financial firms' systems along with external inputs such as news media.

An earlier release, <u>FinScan Securities</u> for financial instrument screening, helps to uncover sanctions-compliance risks that are difficult to identify because of beneficial-ownership complications.

In a February Regulatory Roundup, FinScan Advisory Services director Steve Marshall made note of "fair access" or "anti-debanking" rules, saying that for compliance and money-laundering reporting officers, "this will likely affect their organizations' AML compliance processes, screening configurations including those for adverse media, and customer risk ratings."





Intercontinental Exchange

On the bottom line, ICE topped itself yet again: 2024 was its 19th consecutive year of record net revenues, rising 16% from 2023, to \$9.3 billion. Operating income of \$4.3 billion was up 17%, and the adjusted operating margin was 59%, all "a testament to the resilience of our 'all-weather' business model," said Chair and CEO Jeffrey Sprecher, "which through an array of macroeconomic environments continues to deliver compounding growth as customers access our leading networks to manage risk, consume our mission-critical data and drive greater workflow efficiencies."

Atlanta-based ICE's exchanges accounted for \$5 billion in revenue, with the rest nearly evenly split between the growing and critical fixed-income and data services segment, and mortgage technology, where the company secured a market-leading position with its 2023 acquisition of Black Knight. The latter's datasets, the "leading repository of loan-level residential mortgage data and performance information covering the majority of the overall market," produce insights into, for example, how mortgage delinquencies rose in the second half of 2024, the Los Angeles wildfires' effect on mortgage payments, and a record rise in property insurance costs.

Ten years ago, regarding ICE's New York Stock Exchange acquisition, Sprecher said,

"If that business is a drag on us and we can't use it to grow earnings, then it's completely insignificant, and unlike a lot of people in the exchange space, you have seen us shed businesses." The company did sell off Euronext and some smaller units that came in the NYSE deal. Today the New York exchange, thriving under group president Lynn Martin, is moving the NYSE Chicago branch to Dallas, where it will reincorporate as NYSE Texas to operate an electronic equities market. It stirs the pot where a well-funded group with support from BlackRock, Citadel Securities and other institutions is looking to launch the Texas Stock Exchange next year.

This February, ICE announced a collaboration with Reddit to create data products for capital markets. Data flowing across that platform "has the potential to provide opportunities for our customers as they look for new opportunities in global markets," said ICE Fixed Income and Data Services president Chris Edmonds. "We look forward to leveraging our deep experience with alternative datasets to create products and services utilizing Reddit's Data API that can help give our customers valuable insights into the markets and also help them manage risk across their portfolios." That alliance followed ICE's January acquisition of American Financial Exchange, home of the Ameribor benchmark. Edmonds commented, "AFX's focus on regional, midsize, community and minority-owned banks covers many of the same customers ICE serves through our mortgage technology network," and pointed to "innovation and new product development made possible through the addition of AFX to our portfolio."





MarketAxess Holdings

Reviewing <u>2024 results</u> – revenue increased 9%, to a record \$817 million – and looking to 2025, MarketAxess chief executive officer Chris Concannon outlined initiatives in three market channels. In one, "client-initiated," he said, "we hold a clear leadership position" and launched a block trading solution in Eurobonds and emerging markets. In "portfolio trading," Concannon mentioned an annual gain of over 200 basis points of U.S. high-grade market share and the launch of benchmark pricing for U.S. Credit and Eurobonds. And in the "dealer-initiated" channel, "we expect to complete the integration of Dealer RFQ on <u>X-Pro</u> and the migration of <u>Mid-X</u> to Pragma technology," following from the <u>2023</u> acquisition of that quantitative trading tech provider, in the second half of 2025.

"We have clear visibility into the completion of these key initiatives and believe that executing our strategy across these three channels will drive market share growth throughout 2025 and long-term value for our shareholders," added Concannon, who rose from COO to CEO in April 2023, when founder Richard McVey stepped aside. McVey, who stayed on as executive chairman, formally retired from his nearly 25-year run at year-end 2024 and was succeeded as board chairman by Carlos Hernandez, a former JPMorgan executive chair of Investment and Corporate Banking.

MarketAxess has prospered all along by being well positioned for the long-term fixed-income electronification trend. Gareth Coltman, global head of automation, noted in a <u>data and technology outlook</u> posted online that in 2024 "the majority of trades from our largest clients [was] automated for the first time."

With economic uncertainties looming, "dramatic levels of volatility and price dislocation tend to see traders adopt a more hands-on, conservative approach," Coltman observed. "However, in today's competitive and cost-sensitive capital markets, efficiency is paramount, and automation typically returns quickly as markets stabilize. The trend is clear: The shift to automation is wholesale and ultimately will only become more prevalent in fixed-income trading in 2025."

In December, MarketAxess announced availability of the CP+ AI-powered, algorithmic pricing engine for municipal bonds. "Our award-winning models excel at extracting pricing signals from multiple data sources, which is crucial in munis where trading is known to be sporadic," said global head of research Julien Alexandre.





Miami International Holdings

Since the December 2012 launch of MIAX Options, Miami International Holdings has grown into a global group anchored by a U.S. options complex (four exchanges with a combined market share in January nearing 17%). Also in the holding company structure are MIAX Pearl Equities, MIAX Futures, MIAX Derivatives Exchange (home of new hourly Bitcoin Range Binary Options), Bermuda Stock Exchange (BSX), and futures commission merchant Dorman Trading. The technology is proprietary, notably augmented at BSX and MIAX Futures (formerly the Minneapolis Grain Exchange) with advanced VeriClear systems from Sweden's Vermiculus Financial Technology. The result at BSX, said Gregory Wojciechowski, president and CEO of the Bermuda market, is to "ensure continued best-in-class customer service. The user-friendly interface and modern technology will allow us to provide a more seamless workflow experience for our members."

The planned move of Minneapolis Hard Red Spring Wheat futures onto the MIAX Futures Onyx platform, announced in January, is a win for the proprietary, modernized futures trading and clearing infrastructure. MIH chairman and CEO Thomas P. Gallagher said it "represents MIH's commitment to supporting the agricultural industry with continued investments in programs to promote liquidity, offer competitive fee schedules and develop industry-leading technology. Industry feedback was critical in the design and development of MIAX Futures Onyx, and we believe the new trading platform will provide the industry with a new standard for fast, reliable and innovative capabilities when it launches later this year."

MIAX Futures' record 3.2 million contracts in 2024 were 10.2% more than in 2023; December's 197,513 increased 44.5% year-over-year.

Total MIAX Exchange Group <u>multi-listed options volume</u> rose 6.5% in 2024, to a record 1.7 billion contracts. December's 165.6 million contracts jumped 29.1% year-over-year; January's 177.4 million contracts were up 26.2%.

MIAX Sapphire reached 65 million contracts – 18.4 million of them in December – following its launch on August 12. MIAX Options set a record of 691.6 million contracts in 2024, 9.1% above 2023.





Nasdaq

For six years in a row, Nasdaq has boasted of being the top U.S. exchange in number of IPO listings (180 in 2024) and proceeds raised (\$23 billion). That consistency may be impressive for a core exchange activity that had not been particularly robust by historical standards. But there was far more to the "transformative year" that chair and CEO Adena Friedman proclaimed 2024 to be. The company delivered on its three strategic priorities: Integrate (synergies and efficiencies including those of the 2023 AxiomSL and Calypso acquisitions); Innovate (artificial intelligence and other software and solutions across multiple divisions); and Accelerate (toward a "One Nasdaq" strategy, "on track to exceed \$100 million in run-rate revenue from cross-sells by the end of 2027," according to the January earnings announcement). "We've made substantial progress as a scalable platform company," as Friedman put it.

Total net revenue for 2024, \$4.65 billion, was 19% higher year-over-year; \$1.23 billion in the fourth quarter was up 10%, while Solutions revenue also gained 10%, to \$949 million. As overall annual recurring revenue increased 7% year-over-year in the fourth quarter, Financial Technology ARR climbed 12% and Financial Crime Management Technology – reflecting growth in Verafin, acquired in 2021 – 23%.

Nasdaq released a <u>report</u> in January with Boston Consulting Group, estimating potential efficiency gains of \$25 billion to \$50 billion through targeted enhancements in banks' risk and compliance functions. "Complexity across the global economy," the explosion of data and regulatory burdens contribute to the challenges, Friedman said. "The good news is that as both external complexity and internal complicatedness have grown, so have the solutions to help manage them. By leveraging modern technology and embracing a systems-based approach, we can unlock significant efficiencies and foster a more resilient and innovative ecosystem towards the dual goal of resilience and growth."



NICE ACTIMIZE

NICE Actimize

Prevention and detection of money laundering and other financial crime is regarded as a natural use case for artificial intelligence. NICE Actimize has led the way in making the technology work. Take, for example, SURVEIL-X Conduct Surveillance, a "holistic suite" of oversight and compliance offerings covering 25 asset classes and nine communication types for segments including buy and sell side, wealth management, crypto exchanges, insurance and online brokers. Anomaly detection, natural language processing, alert prediction and other AI technologies add up to accurate detection and rapid investigation of market abuse, inappropriate sales practices and other compliance matters.

A component introduced last August, <u>SURVEIL-X Behavior</u>, brought financial firms insights into employee behavior to proactively identify the driving factors behind conduct risk.

"Employees are a firm's most valuable asset, but certain behaviors can negatively impact the firm's reputation or bottom line," said NICE executive vice president Chris Wooten. "SURVEIL-X Behavior consolidates metrics from many systems into a single behavioral profile to provide firms with a comprehensive understanding of employee conduct."

Speaking earlier about <u>SURVEIL-X Communication</u>, Wooten said, "By offering a single end-to-end surveillance solution that covers all communication modalities and provides instant access to billions of records with rapid search and automated event reconstruction, SURVEIL-X communication surveillance dramatically reduces the cost of compliance, improves overall efficiency and increases the accuracy of compliance teams."

Generative AI was embedded last year in the ActOne enterprise risk case management platform. One of the solutions was a "Fraud Analyst Assistant" chatbot. "Anti-money laundering, fraud and market manipulation scenarios benefit from the cost and time savings that generative AI provides," said CEO Craig Costigan. The use of generative AI was "a monumental step forward in helping financial institutions evolve financial crime and compliance programs and address their growing costs."





n-Tier

"As financial regulators continue to ramp up their scrutiny and new SEC leadership prepares to take the helm, 2025 promises significant shifts in the regulatory reporting landscape – and a new standard of what constitutes compliance," stated a January blog post on ntierfs.com. Among the rules in need of attention, whether to be ratcheted up, eased or status quo: SEC 13f-2 (short position reporting), 10c-1a (securities lending reporting) and 605 (best-execution reporting), as well as anti-money laundering, Consolidated Audit Trail and Customer Account Information Sharing.

Serving a diversified global client base with a combined \$22 trillion in managed assets, n-Tier has grown over more than 20 years with them and with the quantity and complexity of regulations and their reporting requirements. "Market participants require robust technology and compliance infrastructures to ensure effective data monitoring and collection – otherwise, they run the risk of monetary fines and reputational damage," said the blog. The company stresses its comprehensive data management solutions, unified and recently redesigned core platform, and flexibility to deliver both hosted (AWS) and on-premises as it processes billions of client transactions daily.

In November, n-Tier won the Best Solution for Sell-Side Regulatory Compliance category at the RegTech Insight USA Awards for the second consecutive year. This came after winning Best Reporting Solution for Consolidated Audit Trail in 2021 and 2022. Said founder and CEO Peter Gargone: "n-Tier's solution is trusted by leading sell-side firms worldwide, providing them with a comprehensive, reliable and scalable platform for managing compliance across jurisdictions. Our platform has grown from supporting a single regulation to seamlessly integrating a wide array of compliance requirements that shift and expand regularly. By centralizing compliance processes in one robust system, we're ensuring that firms can meet – and often exceed – industry standards and regulatory demands with confidence and ease."





OneChronos

Operator of a fast-growing "smart market" alternative trading system, OneChronos revealed last November that since its 2022 launch it had "facilitated more than \$500 billion in institutional securities transactions, with average daily trading volumes growing to more than 550% of November 2023 average daily volume. The platform's seamless integration with existing market structure," the statement continued, "has driven rapid adoption, enabling firms to easily access enhanced execution capabilities through their current workflows."

The company had just secured \$32 million in funding, itself a measure of market validation, a year after a \$40 million Series B round led by Addition, whose Andrew Miskiewicz said, "OneChronos has clearly demonstrated the execution quality advantage of its product in a highly competitive and established market." The latest investment, with Addition still participating, reflects a belief that "the company will be able to expand into new markets where significant value can be generated," Miskiewicz stated.

"This funding validates our team's progress in traditional capital markets and will help us achieve our vision of leveraging advances in market design and AI to find trade efficiencies that grow the global economy," OneChronos co-founder and CEO Kelly Littlepage elaborated. "We've demonstrated how Smart Markets can transform trading in equities. Now we're ready to bring these same innovations to other markets where traditional trading mechanisms leave significant value on the table."

Quoted in December by Markets Media, co-founder Richard Suth said the firm had submitted a regulatory application for the U.K. and was aiming to launch an EU multilateral trading facility in mid-2025. "In Europe we are going to compete directly in the periodic auction space, which is about 4-6% of the overall market," he said. "We are not just looking to take market share from the incumbents, but looking to grow the overall periodic auction space."



OTC Markets

OTC Markets Group

Three regulated venues – OTCQX Best Market, OTCQB Venture Market and Pink Open Market – operate under the OTC Markets Group banner. They accommodate different levels of disclosure and transparency, less stringent than those of traditional exchanges, for a total of 12,000 U.S. and international securities. The New York company, whose shares trade on OTCQX, said its platforms in 2024 tallied \$478 billion in total dollar volume, 25% more than in 2023. Growth was driven by a surge in trading of international securities, "a result of the increasingly global nature of equity trading along with the prominence and efficiency of the U.S. capital markets," said Matt Fuchs, executive vice president of market data. "Our market structure provides issuers and investors with a unique, data-driven, and cost-effective way to reach the largest pool of liquidity in the world"

The annual metrics included increases of \$92.55 billion in international securities traded, to \$415.57 billion; \$65.94 billion in American depositary receipts (ADRs), to \$348.3 billion; and \$87.37 billion in non-penny stocks, to \$439.89 billion.

The group mentioned "increasing client demand for OTC Markets' unique set of global securities priced in U.S. dollars" in September when it officially launched OTC Overnight, operating Sunday through Thursday, 8:00 pm to 4:00 am Eastern Time, on the OTC Link NQB alternative trading system. Select issues – including ADRs of adidas, Heineken and Roche Holding, and ordinary shares of Bombardier and Air Canada – were initially eligible for trading, and more were to be added.

Then, in November, came <u>Moon ATS</u>, making OTC Markets Group one of the first ATS operators offering broker-dealer subscribers the ability to trade both OTC equity and exchange-listed National Market System securities in the U.S. after-hours window that caters to Asia-Pacific investors during their daytime. "We believe we bring a unique value proposition by utilizing our mission critical infrastructure to serve clients in a new market that is poised for significant growth," Fuchs commented.

Brokerage-as-a-service technology platform <u>DriveWealth</u> in February announced that it would augment its overnight proposition with Moon ATS. The connectivity "allows DriveWealth to facilitate access to multiple overnight execution venues and across trading sessions with a single order," said DriveWealth CEO Michael Blaugrund. DriveWealth partnered last year with <u>Blue Ocean Technologies</u>, whose ATS, launched in 2021, sparked the after-hours trend.



PURESTREAM

PureStream

As the technology partner of PureStream, Nasdaq powers a novel "trajectory trading" approach to order matching that has been gaining institutional momentum since 2021. The alternative trading system's streaming protocol matches indications of interest (IOIs) using a volume-based logic. Traders can find counterparties and execute a specified percentage of market volume over time at volume-weighted average price (VWAP).

Now PureStream is riding on Nasdaq into Europe. It has been available outside the U.S. – on the Nasdaq CXD trading book in Canada – since 2022. The exchange operator and market technology provider projected a first-quarter 2025 launch on Nasdaq Europe. "PureStream and Nasdaq have a strong partnership," said PureStream CEO Armando Diaz. "We are fully committed to advancing streaming globally, and we are very excited about Nasdaq's introduction of PureStream in Europe which marks a significant milestone"

"The solution significantly improves the process of price and liquidity discovery by using open-ended liquidity transfer rates," Nasdaq explained in its October announcement. "This allows institutional investors to minimize market impact and utilize conditional trade negotiation to automate their parent order execution by trading a percentage of the market's future volume" at the VWAP. Nasdaq is committed to "offering world-class platforms that support the evolving needs of the global capital markets," said senior vice president and head of European Equities & Derivatives Nikolaj Kosakewitsch. "PureStream on Nasdaq Europe will provide greater choice of trade execution mechanisms to our clients and help institutional investors navigate the European trading landscape."

PureStream joined in a partnership announcement on February 3 with <u>OptimX Markets</u>, "allow[ing] us to extend the reach of our streaming protocol, offering institutions incremental liquidity choices," Diaz said.





QUODD

For more than 25 years, QUODD has been a leader in financial-market data management technology, currently with nearly 2,000 financial industry clients. A thoroughly modern-sounding brand – QX Digital Platform – represents the Jersey City, New Jersey-headquartered company's present positioning and future direction.

The 2023 acquisition of cloud technology innovator <u>Xignite</u> was termed by CEO Bob Ward a "crowning achievement." In 2024, the number of institutions accessing the QX Digital offering increased nearly 200%. "The synergistic impact of our Xignite acquisition was a standout success, with customers accessing the combined data catalog of both entities," according to a <u>2024 review</u> on QUODD's website. "This enables our clients to improve their data consumption experience and drives even greater value from a one-stop shop."

Another post-merger metric: The combined QX Marketplace served more than 9 trillion API requests in 2024, a 38% increase year-over-year. "This scalability underscores our ability to meet the higher demands of a rapidly evolving financial services industry." Among Marketplace enhancements: Options Multiplier, a new field simplifying analysis for compliance and operational teams; Extended ETF Holdings History; and the Blue Ocean ATS real-time depth of book and price feeds for thousands of Regulation NMS stocks, to be available this year.

Through the Digital, Marketplace and QX Automate channels, "we have democratized access to market data, enabling a diverse range of use cases through our extensive content catalog, which includes 150 data sources and 250 billion data points in our data lake," QUODD has said.

Announcing a redistribution agreement last year with <u>S&P Global Market Intelligence</u>, CEO Ward said that with S&P bond data on QX Digital, "we are empowering institutional customers to harness data on demand, setting a new standard for agility and client-centric products. Our focus on the mid- to back-office user allows institutions flexibility within their organization to maximize their market data spend by providing user-specific information to more of their employees at a fraction of their current spend without sacrificing quality and improving workflow."



S&P Global

S&P Global

There was a CEO handoff last November, from Douglas Peterson to Martina Cheung, and S&P Global didn't break stride. Reported revenue increased 14% in 2024, to \$14.2 billion, and GAAP operating margin rose to 39.3% from 32.2% in 2023. "We demonstrated the strength of our businesses and enter 2025 with strong momentum," Cheung said on February 11. She "had hundreds of conversations with our customers and partners, who have reinforced the need for our benchmarks, data and insights to guide their decisions in a constantly evolving market."

Known for credit ratings, benchmarks and analytics, S&P deploys vast research, operational and technological resources across markets and finance.

"At S&P Global, we aim to facilitate a conversation with the market," said a web page introducing a package of <u>Artificial Intelligence Insights</u>. "The biggest need at this point is for transparency in the face of both the fear and the hype surrounding generative AI. At the same time, this landscape is ever-changing. Our view is that these technological advancements are equally important to economic development as other major trends like globalization, social inclusion, and climate and energy transition."

S&P in January announced the acquisition of ProntoNLP, whose natural language processing and generative AI tooling will bolster textual data analytics. The deal "underscores our commitment to advancing AI-driven solutions that harness both structured and unstructured data to deliver actionable insights," said Frank Tarsillo, chief technology officer of S&P Global Market Intelligence. "By integrating ProntoNLP's cutting-edge expertise in signal processing with our existing platforms, we aim to enable richer context understanding, more accurate predictions, and faster decision-making for our customers." Global Market Intelligence applied the NLP technology with additional data science in Three Tools for Trump Tariffs 2.0.

For those looking for signs of growth in <u>equity issuance</u>, S&P had the data: The aggregate IPO amount offered globally in the fourth quarter was \$116.35 billion, the highest over the last two years, even as the number of IPOs fell year-over-year. "M&A and equity issuance remained far below historical levels," said Joe Mantone, lead author of the report at S&P Global Market Intelligence. "As we look to 2025, the stage is set for continued growth in global M&A and equity offerings, driven by strategic investments and supportive economic policies."

In March, enhanced RiskGauge and Credit Analytics corporate entity coverage expanded access to an all-sectors database of over 400 million companies across more than 200 countries and territories.

A <u>strategic partnership</u> unveiled last October resulted in the integration of S&P Global Bond Reference Data into the MarketAxess suite of data products, and the inclusion of MarketAxess CP+ real-time pricing into S&P Global's Evaluated Bond Pricing.







In 2024, the Securities and Exchange Commission updated its Rule 605, a reporting requirement originally adopted in 2000 to enable best-execution comparisons across market venues. Mark Davies, co-founder and CEO of S3, has been called a "savant" on the subject of 605, its evolution, revisions and complexities. The Austin, Texas-based company is a resource for organizations seeking clarifications on this top-of-mind issue, but the Rule 605 solution is only a part of S3's "all-in-one," multi-asset compliance, reporting and data analytics suite. Systems also support SEC Rule 606 (broker-dealer order routing) – billions of 605/606 records are processed per day – as well as Consolidated Audit Trail (CAT) and trade surveillance.

Founded in 2001, S3 offered its first trading analytics product in 2004. By 2022, responding to client cross-border demands, it introduced <u>Global Options Best Ex & TCA</u>. The following year, <u>Blue Ocean Technologies</u> tapped S3 for CAT reporting on its afterhours alternative trading system.

A "focus on large data is something we ensure our clients to be successful," Davies said in a recent TabbFORUM Market Structure Wave <u>interview</u>. He sees the SEC's "focusing more on transparency rather than regulation by enforcement" as underscoring how data on execution quality and other statistics can reveal differences among competitors. "We can help firms showcase their capabilities by analyzing and understanding their data."





SIX Group

Crypto Valley grew up around Zug, Switzerland, starting around 2013. By 2018, the Crypto Valley Association was established. That same year, in Zurich, SIX Group, Swiss Exchange's parent, formed Swiss Digital Exchange (SDX), which now bills itself as "the world's leading financial market infrastructure for digital assets." Headed since 2021 by David Newns, a former State Street GlobalLink executive, SDX in May 2024 settled a 200 million Swiss franc World Bank bond, bringing total digitized issuances on the platform above 1 billion Swiss francs. "Breaking through the 1 billion barrier underscores the growing acceptance and adoption of digital assets within the global financial landscape and the world-leading position that the Swiss Financial Center has taken in this critical area of innovation in capital markets," said Newns. "Our objective has always been to seamlessly connect digital and traditional infrastructure, mitigating market fragmentation and facilitating the efficient transition to digital assets."

SIX Group, which became Europe's third-largest financial market infrastructure company in 2020 when it acquired Spain's BME, agreed in November 2024 to acquire Aquis
Exchange of London – operator of a pan-European multilateral trading facility and a growth-company market as well as technology and market data businesses. That brings together "businesses with a shared commitment to capital markets innovation," said Bjørn Sibbern, then SIX's global head of exchanges, who had joined the SDX board last year and on January 1, 2025, became CEO of SIX Group, succeeding Jos Dijsselhof.

In November, SIX said it reinforced its digital-asset commitment through BME's investment in real estate tokenization platform OpenBrick. In January, with the purchase of shares owned by Asset Management Association Switzerland, SIX became the sole owner of Swiss Fund Data.

Newns in February announced a new <u>Digital Collateral Service</u>, "empower[ing] product issuers, traders, brokers and market makers to optimize their collateral usage, whether it's crypto or traditional securities, with built-in risk management safeguards. This allows financial institutions to embrace crypto collateral on a larger scale."





SOLVE

Founded in 2011, SOLVE has grown into a leading market data platform, leveraging artificial intelligence at an early stage and building the largest real-time datasets for securitized products, municipal bonds, corporate bonds, syndicated bank loans, convertible bonds, credit default swaps and private credit.

With <u>SOLVE Px</u> predictive pricing for munis last September, buy- and sell-side customers gained "unprecedented visibility" into next-trade pricing data on over 900,000 municipal bonds, the New York-based, company said. It was the latest addition to the SOLVE platforms including SOLVE Quotes, which provides price transparency data on over 20 million daily quotes and more than 1.25 million securities across asset classes.

"One of the unique challenges in the municipal bond market is the sheer number of outstanding CUSIPs and the lack of pricing transparency on the vast majority of them," said founder and CEO Eugene Grinberg. "By tapping into our unparalleled quotes data and leveraging Al's ability to see in many dimensions, SOLVE Px lets front-office municipal bond professionals price munis with confidence and identify investment opportunities."

According to a December announcement, an <u>API Developer Portal</u> allowed direct integration of client applications, models and processes with SOLVE's data – "a better way for SOLVE to work with developers and get a polished version of our data into the hands of more market participants," Grinberg said.

In February, trading-as-a-service innovator Entegra turned to SOLVE for real-time securitized products pricing. "From the day we started our business," Grinberg said, "our goal has been to empower market participants to make confident, data-driven decisions by enhancing price transparency for both buy- and sell-side participants, and working with Entegra allows us continue serving that mission."





State Street Corp.

Investment services giant State Street, which increased assets under custody and/or administration in 2024 by 11%, to \$46.6 trillion, formally fixed its sights on cryptocurrency-and blockchain-related opportunities in 2021 with the creation of State Street Digital. Today the <u>digital solutions</u> components are in place – including fund administration and accounting, custody and "tokenization as a service" – but there were twists and turns along the way. The first head of digital, management committee member and former Global Markets chief Nadine Chakar, moved to startup Securrency and, by way of its 2023 acquisition, to Depository Trust & Clearing Corp. A 2022 custody technology relationship with <u>Copper.co</u> was disbanded the following year. But in view of recent favorable crypto market and regulatory developments, State Street is now reportedly preparing a full-fledged crypto custody offering.

Last fall, State Street brought in <u>Vanessa Fernandes</u>, formerly of BNY Mellon, as head of Digital Asset Solutions, reporting to executive vice president and chief product officer Donna Milrod.

State Street had announced in August a strategic agreement with the Swiss digital-asset infrastructure company <u>Taurus</u>, bringing "fully integrated custody, tokenization and node-management solutions to automate the issuance and servicing of digital assets . . . in accordance with applicable institutional standards." Milrod said the collaboration "underscores our ongoing commitment to further establishing ourselves as leaders in this growing asset class [and] enhances our ambition to deliver to our clients an amazing digital asset experience."





Symphony Communication Services

Symphony started out in 2014 with a simple, if highly ambitious, proposition: secure chat for cross-firm communication. After building out technologically and geographically, currently reaching over 600,000 users and more than 1,300 institutions including many of the world's biggest banks and asset managers, chat and client communication remain at the core of the enterprise. "Messaging" today is but one of four platforms – the others are Voice, Directory and Analytics – securely interconnected in what is touted as "the most valued financial services community."

"Volatile and rapidly changing global markets highlighted an opportunity for Symphony and its product offering to be more relevant than ever when it comes to compliance, legacy technology risk, and security and resilience," said a <u>review of 2024</u> posted at Symphony.com.

"Symphony's federation product – designed to ensure compliance while using WhatsApp, WeChat and LINE for business purposes – saw a 60% increase in monthly active users and a 115% increase in number of messages sent," it went on, as "many firms struggled to prove they had conducted business communication in a way that was in accordance with applicable regulation . . . We sought to support our clients' needs with modern, interoperable and compliance-enabling technology, ultimately making financial markets more secure, as well as solidify our reputation in operating geographies and build it in new markets."

In May 2024, Symphony opened an office in the <u>Abu Dhabi Global Market</u>, with CEO Brad Levy saying the Middle East is "a key market for Symphony's expansion." A "multifunctional hub" was established in <u>Belfast</u>, <u>Northern Ireland</u>, another in Symphony's multi-office global footprint.

An integration with the <u>TradingView</u> platform gives Symphony Messaging access to TradingView's global market data, charts and news feed, which includes 108 stock exchanges, 46 future exchanges, 32 forex exchanges, 77 crypto exchanges, and 100 news and economic data sources.

And with Symphony Messaging functionality, <u>Broadridge's NYFIX</u> is "enabling clients to resolve post-trade inaccuracies faster and with greater ease, ultimately enhancing operational efficiency," said George Rosenberger, head of the Broadridge Trading and Connectivity Solutions unit.





Tradeweb Markets

In what chief executive officer Billy Hult termed "a banner year," Tradeweb in 2024 posted its 25th consecutive record in annual <u>revenue growth</u> — which is nearly the electronic trading marketplace's entire lifetime. "This achievement reflects our commitment to growing our geographical footprint, entering new markets and client channels through organic and inorganic collaborations, and consistently delivering value to our clients," Hult said. Fourth-quarter revenue jumped 25% from the prior-year period, to \$463.3 million. Average daily volume, \$2.3 trillion, expanded by 37%, as quarterly ADV records were set in U.S. government bonds, mortgages and global repurchase agreements, and the platform reached a record 7.9% share of fully electronic U.S. high yield TRACE volume.

Another bright spot: market data revenue, growing 16% for the quarter, to \$30 million; \$90 million is projected for 2025 in data contract revenue from the London Stock Exchange Group.

Hult highlighted Tradeweb's becoming the first strategic partner of Goldman Sachs' <u>GS</u> <u>DAP</u> digital asset platform, and a collaboration with the <u>Tokyo Stock Exchange</u> to offer enhanced access to liquidity in Japanese exchange-traded funds. The latter "demonstrates our focus on linking liquidity pools for the benefit of institutional investors looking to transfer risk with a higher degree of certainty," stated Enrico Bruni, then head of Europe and Asia business, whom <u>Tradeweb promoted</u> in December to co-head of Global Markets alongside Troy Dixon, founder and chief investment officer of Hollis Park Partners.

In February, Tradeweb announced plans to integrate its fixed-income execution workflows with cloud-based software provider <u>Coremont's</u> Clarion portfolio management system. The collaboration "reflects our focus on supporting innovation that accelerates the shift from complex manual workflows to fully digitized processes for hedge funds and leading asset managers globally," Bruni said.





Trumid

Founded in 2014, Trumid set its sights on electronic fixed-income trading, where MarketAxess and Tradeweb, both developed in the 1990s, dominated market and mind share. Trumid has by now earned a place as one of the "big three," its overall market share 35% as reported by The Desk in January. Full-year volume of \$1.4 trillion climbed 62%, pushing market share up by 34% "due to accelerated client adoption across investment-grade, high-yield, and emerging market bonds."

For January, <u>Trumid reported</u> record average daily volume of \$6.9 billion, up 8% year-over-year; and 6% growth in U.S. high-yield and investment grade corporate bond market share. Trumid offers its network of 900-plus buy- and sell-side institutions, with more than 1,400 traders transacting monthly, a range of protocols within a single application, such as Swarms, Automated Trading (AT) and List Trading. Trumid RFQ and PT (Portfolio Trading) have been significant contributors to growth. PT was enhanced last year with PT Pricer. RFQ in January more than doubled year-over-year, and supported by AutoPilot for RFQ, another 2024 innovation, around 80% of eligible line items were executed "no touch" in January.

In an integration announced last fall, <u>Tradewell Technologies</u> users gained access to Trumid's RFQ and Swarms liquidity pools, thereby contributing to, and benefiting from, corporate bond liquidity in Trumid's client network.

Ryan Gwin, formerly of MarketAxess, was appointed in January as head of data solutions. It is a new position reporting to Jason Quinn, chief product officer and global head of sales, who said, "Our distinct protocol set combined with our nimble technology stack creates vast opportunities to develop data solutions that can seamlessly integrate analytics with electronic and automated execution."





Versana

For all the progress made in bringing automation and trading efficiencies to major asset classes, syndicated loans were still bound by slow and manual processes in 2022 when Versana got off the ground. Backed by the leading banks in that market – JPMorgan, Bank of America, Citi and Credit Suisse were the initial investors – Versana embarked on a data- and transparency-driven, "digital transformation" mission aimed at the now \$8 trillion in broadly syndicated loans and private credit.

There have been landmarks along the way. A \$40 million <u>capital raise</u> in 2023 brought Deutsche Bank and others into the investor group, and seven of the 10 major U.S. agent banks were committed to the platform. By June 2024, when Versana announced that JPMorgan had achieved <u>straight-through processing</u>, over 3,600 syndicated loan facilities (Revolver, Term Loan A and Term Loan B) totaling \$2.1 trillion in commitments were on the platform. It surpassed 6,000 loan facilities and \$3.5 trillion in commitments as of December, when Versana announced the <u>hiring</u> of Amrita Ganguly (from Morgan Stanley) as head of strategy and corporate development, Julia Kingsbury (Credit Suisse) as product strategist and Melissa Magner(BlackRock) as head of legal. Barclays came into the fold along with a \$26 million October fund-raise.

This January, <u>Bain Capital Credit</u> became the first buy-side subscriber and 13th top-tier financial institution overall. Versana founding CEO **Cynthia Sachs** called this "a huge win [that] further validates our product-market fit and buy-side value proposition. As a preeminent global credit investor, Bain Capital is forging the innovative path for peer institutions to follow, setting in motion Versana's next phase of growth."

Also in January, the launch of a <u>Reconciliation Module</u> was "the tipping point in our mission to digitally transform the corporate loan market," Sachs said. "By leveraging our real-time digital data platform, we are uniquely able to electronically match lenders' positions to agents' records, providing immediate insight into any discrepancies."



10 MORE INNOVATORS TO WATCH

- AiMi Technologies
- BTON Financial
- Clearpool
- ETPLink
- Model ML
- Ondo Finance
- OptimX Markets
- Receipts Depositary Corp.
- Texture Capital
- Tradewell Technologies



AiMi Technology

Swedish startup AiMi, leveraging artificial intelligence and agentic automation workflows, offers Exchange Change Management, with what founder and CEO Ollie Cadman describes as a "first to market" approach to solving what historically "has been a people problem. Whilst others build data-based Al products, we're building operational middleware to improve the efficiency and productivity of critical capital markets infrastructure." By better handling the constant flow of changes coming from trading venues and exchanges, firms can redirect resources to "more value-add activities," says Cadman, whose past affiliations include Eventus Systems and Vela Trading Systems.

To break out of the "running the bank" mentality, and becoming more forward-thinking, requires "embrac[ing] greater digitization and dynamic provisioning," says an AiMi thought leadership piece. "These innovations have the potential to simplify and accelerate onboarding and change, making market infrastructure more agile, efficient and accessible. Adopting more predictable and deterministic automation-led workflows would drive greater efficiencies and reduce one of the most significant barriers to entry for new market participants or venues."



bton financial

BTON Financial

CEO Daniel Shepherd has led BTON into deep learning and other leading-edge technology in developing recommendation and decision-support capabilities for buy-side trading. "When it comes to talking about the big Al changes set to take place, no one wants to be in a position down the line where they have to say, 'I stood on the sidelines and waited to see what would happen,'" Shepherd recently told The Trade, discussing London-based BTON's U.S. launch. "In the U.S. there's a real level of optimism in this space, so we're very excited to be part of this and the opportunities arising there." Also reported: a partnership with OptimX Markets providing "a seamless way to deliver cuttingedge quantitative and qualitative analysis tools for European equity block trading."





Clearpool

"The first decentralized dynamic marketplace for institutional capital," Clearpool is behind the Ozean RWA (real world assets) blockchain. Ozean is German for ocean — symbolizing a bigger vision than a pool: "a purpose-driven ecosystem at the forefront of innovation, seamlessly integrating RWAs into DeFi," according to a February Medium post. Port, an on-chain vault infrastructure for yield-bearing RWAs, was announced in February, followed in March by a collaboration with First Digital of Hong Kong, providing access to digital-asset custody and the FDUSD stablecoin ecosystem.

Quoted in Cointelegraph, Clearpool co-founder and CEO Jakob Kronbichler said, "As governments and regulatory bodies are defining clearer frameworks for digital assets, institutional players will gain confidence in engaging with tokenized financial instruments." Clearpool sees private credit as "DeFi's next big yield opportunity," democratizing access to the asset class and ensuring transparency "with deposits and withdrawals all available for everyone to see."





ETPLink

A distributed ledger technology-based order management platform with smart contracts is at the core of ETPLink's market infrastructure for exchange-traded products. It went live in 2022, and ETPLink's selection in November by Hong Kong Exchanges & Clearing was a major milestone, integrating with the HKEX infrastructure to automate ETP primary market activity. Roger Balch, ETPLink director of business development and operations, commented, "Our platform is designed to meet the highest standards of performance, reliability and flexibility, and we are excited to contribute to the growth and development of the ETP market in Hong Kong."

Among other developments last year, crypto custodian Crypto Finance joined the ETPLink platform, as did HSBC Bank and DRW as authorized participants.





Model ML

Backed by <u>Y-Combinator</u>, and recently out of stealth mode with a reported \$12 million in funding, Model ML has applied agentic artificial intelligence to analytical tasks such as earnings summaries, transcript assessment, portfolio monitoring and sentiment analysis. "While in stealth, Model ML went live with over 20 customers, including some of the largest financial institutions in the world," according to <u>Tech.eu</u>. "Early customers report improved efficiency, with some rewriting their business strategies based on the platform's impact." CEO Chaz Englander, a serial entrepreneur who co-founded Model ML with his brother Arnie Englander, said, "Traditional software requires manual data gathering for emails, financial models, and presentations – but that's changing."





Ondo Finance

The Ondo Summit in New York in February spotlighted blockchain technology company Ondo Finance and the ecosystem developing around its Ondo Chain, with which it aims to accelerate the creation of institutional-grade financial markets. "Ondo Chain is designed to meet the highest institutional standards while remaining open for developers and innovators," said CEO Nathan Allman. (He, president Justin Schmidt and chief risk and compliance officer Chris Tyrrell previously worked on Goldman Sachs' Digital Assets team.) "It tightly couples onchain and offchain infrastructure, reducing cost, enhancing security, and ultimately enabling a better user experience," Allman added. "For these reasons, we anticipate Ondo Chain becoming the hub for the DeFi ecosystem centered on tokenized assets."

Ondo announced that Franklin Templeton, Wellington Management, WisdomTree, Google Cloud, ABN Amro, Aon and McKinsey had joined the Ondo Ecosystem and would advise on the design of Ondo Chain. BlackRock, PayPal and Morgan Stanley were already on board.

In late February, Ondo said it will be the first provider to bring real world assets to the <u>Mastercard Multi-Token Network</u>, and former Congressman and House Financial Services Committee Chairman <u>Patrick McHenry</u> became vice chairman of Ondo's advisory board.





OptimX Markets

In 2023, Deutsche Börse's DB1 Ventures led a seed funding round in U.S. block trading start-up OptimX, with Aquis Exchange co-investing. OptimX Markets Europe received U.K. Financial Conduct Authority authorization in April 2024. When the U.S. Financial Industry Regulatory Authority (FINRA) in November approved OptimX to operate as a broker-dealer, founder and CEO David Barnett said that the authorization "further demonstrates OptimX's dedication to offering innovative technology that fits seamlessly within the established market framework."

A Europe-focused partnership with <u>BMO Capital Markets</u> "meets the increasing demand from institutional traders for a centralized technology that provides streamlined access to significant liquidity," said a December announcement. A partnership with <u>PureStream</u> "reflects our dedication to providing clients with innovative solutions that address the complexities of modern trading," Barnett said. "The integration of trajectory crossing technology enhances our platform's ability to deliver superior execution outcomes."





Receipts Depositary Corp

Depositary receipts (DRs) are best known in the U.S. as vehicles for trading shares in foreign companies. Receipts Depositary Corp. (RDC) sees a place for that structure with digital assets underlying the DRs. Backed by Franklin Templeton, BTIG and Broadhaven Ventures, RDC launched <u>Bitcoin Depositary Receipts</u> for qualified institutional buyers early last year. They cleared through Depository Trust & Clearing Corp.; Broadridge Corporate Issuer Solutions served as transfer agent and Anchorage Digital Bank as custodian.

XRP Depositary Receipts – Ripple XRP is the underlying – were announced this February. CEO Ankit Mehta, one of three co-founders who came from Citi's DR business, said, "XRP DRs represent another step forward in bringing digital assets into the traditional financial ecosystem. Qualifying investors now have the ability to own XRP using the same processes they trust for traditional securities. We are seeing more demand for digital-asset DRs and are scaling our business accordingly."





Texture Capital

Licensed by FINRA and the SEC as a broker-dealer, Texture Capital is aiming, via blockchain and tokenization, to support issuance of private-placement digital securities and secondary market liquidity. In January, preparing for its alternative trading system launch, it announced an integration with <u>Canton Network</u>. With "dozens of global investment banks, exchanges and institutional asset managers" in the Canton ecosystem, "Texture Capital looks forward to working with other Canton Network participants and enhancing capital markets workflows leveraging blockchain technology," said CEO Richard Johnson, formerly of Greenwich Associates, Société Générale, Liquidnet and ITG.

"The future of tokenized collateral holds immense promise," concluded an insight article on Texture's website. "By enabling banks, brokers, traders and other market participants to seamlessly move assets from one market to another, across the globe on a 24/7 basis, significant capital can be freed up and reallocated to more profitable activities. It will also represent an important step towards adoption of blockchain and crypto among TradFi institutions."





Tradewell Technologies

Enabling aggregated, all-to-all liquidity access across the leading corporate bond trading venues, Tradewell said that its client base more than doubled in 2024, and volume grew more than 10-fold. The New York and London startup co-founded by CEO Alex Reyfman and CTO Michael Wong, who both worked at AQR Capital Management, also won the Futures Industry Association's Innovator of the Year competition "for its potential to transform the way that asset managers execute their trades in corporate bonds and bring greater efficiencies to the workflow in that market."

"In 2025," said a Tradewell LinkedIn post, "we will take another step forward by introducing smart RFQ sending and swarm initiating technology, completing our set of trading tools. This addition will mark the beginning of algo-to-algo trading, redefining corporate bond market structure."

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<u>Jeffrey Kutler</u> is contributing editor of Global Association of Risk Professionals' GARP Risk Intelligence site. He served as editor-in-chief from 2008 through 2019. Before joining GARP, he had senior editorial roles at Institutional Investor, Securities Industry News and American Banker.

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