Markets Unstructured:

The Importance of Connectivity in the Reinvention of Markets

A Series of Three Short Papers

Paper III

From Vision to Execution: An Industry Action Plan

Market Structure Partners

April 2026

INTRODUCTION TO THE *Markets Unstructured* SERIES OF PAPERS

Market structure is becoming unstructured. It is no longer organised around the transparency and rule frameworks of a small number national exchanges, which were once the gatekeepers of domestic market integrity. Instead, it is shaped by control over data, speed, balance sheet capacity, and connectivity. Price formation is shifting from public venue-centric exchanges to a dispersed, network-driven ecosystem with no single arbiter of integrity or access rules.

Policymakers anticipated regulatory change would lead to asset classes converging toward transparent, multilateral Central Limit Order Books (CLOBs) modelled on equities. In practice, two decades of competitive dynamics, combined with restricted access to data and a reduction in data standards have skewed economics, reduced market confidence and permanently changed market structure. The result is a reinvention of markets with deeper information asymmetry, increasing frictional costs and a reshaping of liquidity economics.

Trading behaviour reflects these shifts. Equity markets are exhibiting signs of "bondification": orders that once interacted transparently on lit books are increasingly executed bilaterally through internalisation, RFQ mechanisms, and other off-venue channels. Equity liquidity is fragmenting rather than consolidating and bond markets remain stubbornly RFQ. Investors increasingly seek to minimise information leakage and market impact in an environment defined by proliferating liquidity pools, uneven visibility and speed advantages.

Connectivity - the infrastructure that transports, processes, and displays high-density message traffic – is now systemically important for all asset classes. Once regarded as operational plumbing linking buy-side firms to brokers and exchanges, it now determines access to a growing number of dispersed liquidity pools.

In this networked market, competitive advantage depends on data ingestion, analytics, capital deployment, and seamless access to liquidity channels across asset classes - not just routing to and from a single asset class venue. As price formation decentralises, the central governance question emerges: who upholds transparency, fairness, access rules and integrity when there is no single visible order book, or venue rules, anchoring the system?

Market Structure Partners (MSP) examined this transition through interviews with 30 global participants across the buy side, sell side, and connectivity providers. The findings, presented in three short papers, analyse changing liquidity formation, its impact on connectivity models, approaches to changing connectivity architecture, and governance reform. They conclude that sustainable market growth depends on interoperable, stakeholder-controlled networks capable of delivering portable, auditable data across asset classes and liquidity models.

Policymakers who treat connectivity as core infrastructure and the quality of data that flows through it as a prized asset, will set the right conditions for growth. Meanwhile participants that grasp, and act upon, the magnitude of change

will shape the next phase of global trading and their role within it.

Paper I

"From Siloed Markets to Free-Flowing Ecosystem"

Reviews the changing shape of market structure and looks at sustainability of current access models as participants respond to structural shifts in liquidity and price formation.

Paper II

"Rewiring Connectivity: The Structural Shift Underway"

Looks at the infrastructure challenges faced by firms and the actions being taken to reshape their financial market connectivity.

Paper III - (this paper)

"From Vision to Execution: An Industry Action Plan"

Explores how weaknesses in the system will be further exposed by the adoption of AI and highlights the constraints in the current framework that prevent change. It concludes with an action plan to facilitate market transition to the next generation of market infrastructure.

Executive Summary: Paper III

This paper is the final part of a three-part series examining the evolving dynamics of liquidity and the increasing importance of connectivity and data in financial markets. It focuses on the increasing use of AI in trading, how participants are preparing for these changes, and their expectations for the future. It also brings together findings from all the papers on the challenges of accessing liquidity in increasingly unstructured markets and proposes industry-wide actions to facilitate the on-going transformation and support growth and resilience.

- AI adoption in trading is seen as inevitable, and it is likely to expose existing weaknesses in connectivity infrastructure and data integrity.
- Market participants are adapting, but must balance current operational demands and with future needs:
  - Sell-side firms are prioritizing gaining cost transparency of the current model and maintaining service reliability over investing in new technology.
  - Many buy-side firms are proactively preparing for major business model changes, seeking greater independence through flexible, cloud-based, API-driven systems and "headless" EMS models. The focus is shifting from speed to more intelligent, optimized trading.
  - When engaging with third-party vendors, firms prefer modular, interoperable, cloud-ready solutions that are reliable, cost transparent and vendor neutral rather than the historically bundled systems. More flexible and more easily integrated system designs are emerging, but this is a challenge to traditional vendor models, which is slowing transformation. Many firms are not yet treating vendors as potential strategic partners.

As AI evolves into coordinated, multi-agent systems, high-quality connectivity and data become essential for transparency, governance, resilience, and real-time control. With specialised agents operating across the trade lifecycle, fragmented liquidity increases both speed and risk, making robust connectivity and shared data context just as critical as the AI models themselves.

In summary, in markets where competition exists, market structure has shifted from single-venue execution model to a network-based model, but regulation has not kept pace. The old system that was predicated on the memberships and rulebooks of national dominant venues to uphold ethics, access rules, data integrity and resilience for an entire market has fallen away, leaving gaps in oversight. As a result, restricted access to networks and data, along with poor data quality are distorting markets.

- In markets where competition has been introduced, connectivity and data, rather than any individual venue, are now central to how markets function and should be the enablers of access, growth, and resilience in a distributed environment.
- At the same time, legacy systems and business models can no longer keep up with the demand for seamless, cross-asset connectivity. While new technologies are emerging, their impact is limited by weak governance around data and connectivity. Without coordinated action between industry and regulators, these issues are likely to worsen, disadvantaging many participants.

The report recommends that policymakers who desire competitive markets in trading need to rethink what constitutes critical market infrastructure, shifting focus toward governing connectivity and data at a systemic level rather than relying on individual trading venues and technology providers to fulfil that role. Regulators or cross-market bodies must now be empowered with these new responsibilities. At the same time, market participants must take greater responsibility by redefining their value propositions and prioritizing high-quality connectivity and data to the highest strategic level as they move away from legacy systems and models.

Outreach Findings

Preparing for Challenges Ahead: Where AI Changes the Game

Most firms spoken to for this Study are regional or global in nature and in the exploratory phase of embedding AI into trading workflows, but increased use is inevitable. Without easy access to clean data and a holistic connectivity architecture, the process of consolidating fragmented, cross-asset data into a unified, real-time, normalised event stream with full context, integrity, and traceability is a significant challenge.

As firms adopt more agentic, model-driven workflows, existing weaknesses in data semantics, latency, and interoperability are exposed. The focus shifts from the provision of execution access to decision integrity - whether decisions are based on consistent, synchronised, and complete data across all endpoints.

This elevates the role of connectivity and data. Without standardised, high-integrity networks and comprehensive, quality data, firms cannot ensure access to consistent data with appropriate context and interpretation, comparable execution logic, reliable outcomes, or the ability to reconstruct decisions and executions across the system.

As liquidity is increasingly distributed across multiple execution channels, failures can propagate faster, across more nodes, and with less visibility. As workflows decompose into coordinated, multi-agent processes, connectivity should become the layer that enables orchestration, interoperability across OMS/EMS, brokers, venues, and risk systems, with full observability of decisions, handoffs, and exceptions. It also underpins governance through escalation paths, human intervention, and real-time controls.

Connectivity with clean data flowing through it then operates as the coordinated network - rather than a series of point-to-point links - with which AI-driven execution is able to successfully scale. The question for the firms we spoke to is how to build a model for the future while dealing with the issues of today.

1 Industry Moves Forward

To solve the connectivity conundrum, the sell-side first have to address the commercial concerns of the current model while the buy-side need to focus on future strategic infrastructure to deliver on investment capabilities for their organisations. Both the buy- and sell-side will need to embrace more strategic partnerships with third party technology vendors to meet the new industry requirements.

> *"Transparency first – we need to know costs, rebates, charges per connection. Then reliability and vendor neutrality. Without transparency, nothing else matters."*
>
> ***Tier 2 Sell-Side Head of Execution***

Sell- Side Cost Transparency

Sell-side firms plan to invest in future technologies, but first they need a clear view of vendor connectivity costs to manage budgets and ensure reliable day-to-day support for the current infrastructure. EMS and client connectivity solutions have traditionally been bundled by vendors and costs for the total service are considered opaque. Additionally, once a client is connected to a vendor system, sell-side firms have little leverage over the cost of the connection if they want to receive a client's flow.

Transformation, therefore, depends on a thorough understanding the current costs and/or a client's willingness to move to a new system or business model.

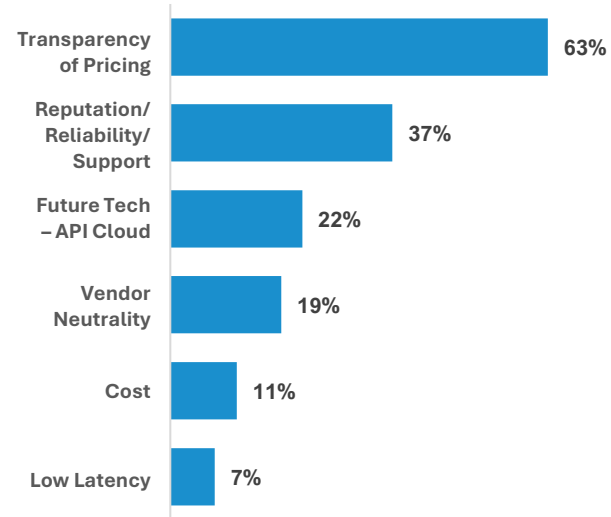
As a result, advanced technology ranks a distant third in their priorities, with cost transparency and service reliability outweighing technology-led innovation (Exhibit 3.1). Today, 78% of sell-side firms report zero or limited visibility into their connectivity costs, making meaningful improvement difficult (Exhibit 3.2).

> *"Our EMS bill has risen drastically despite cleaning up connections annually. Vendors change models without any warning. Half the charges can't be explained. There's so much opacity in our bills we are now using AI to scan all of our invoices and building systems to automate the invoice reconciliation."*
>
> ***Global Sell-Side Head of Execution***

> *"Smaller players can go headless EMS, open-source FIX, very lean. But for big institutions like us, we need governance and scale. But we also need the challengers to force change. They may not yet be big enough for us but having those third-party solutions is good as it gives us flexibility."*
>
> ***Global Asset Manager, Head of Dealing***

Exhibit 3.1

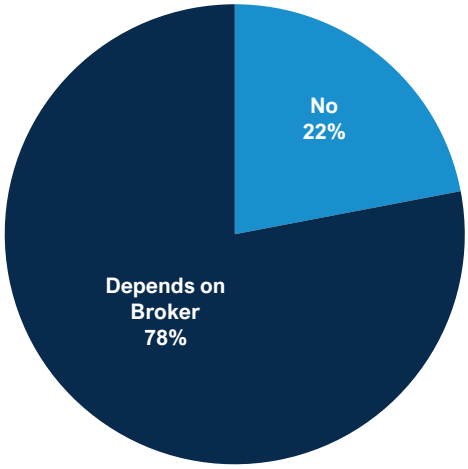
What qualities do you value most in a third-party vendor? (Sell-side)



Source: *Market Structure Partners Ltd Outreach*

Exhibit 3.2

Are your external connectivity costs fully transparent and itemised? (Sell-side)



Source: *Market Structure Partners Ltd Outreach*

Buy-Side Independence & the "Headless" EMS

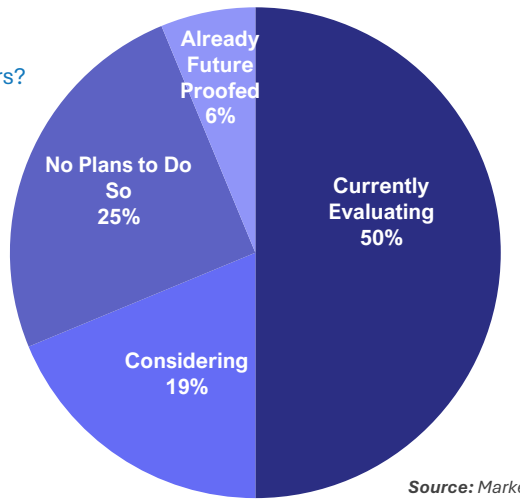
Asset managers increasingly recognise that future market access requires far greater technological independence. Three-quarters of firms are already reviewing or rebuilding their connectivity infrastructure, acknowledging that they can no longer rely on inherited vendor setups or traditional front-ends (see Exhibit 3.3). Firms recognise they need to take direct responsibility for their market connectivity, workflow design, and front-end capabilities and challenge the status quo.

This is driving a shift toward cloud-native, API-first, interoperable architectures that support flexible, scalable, multi-asset trading (Exhibit 3.4). The potential for a "headless" EMS model is emerging, where each firm sets its own execution needs, liquidity access, and integration patterns. The focus is moving from trading faster to trading smarter through better counterparties, data, and workflow optimisation.

> *"We're evaluating currently. API-first makes a ton of sense, especially for new asset classes and more flexible workflows. That doesn't mean ripping out the entire stack - replacing core infrastructure isn't trivial"*
>
> ***European Asset Manager, Head of Dealing***

Exhibit 3.3

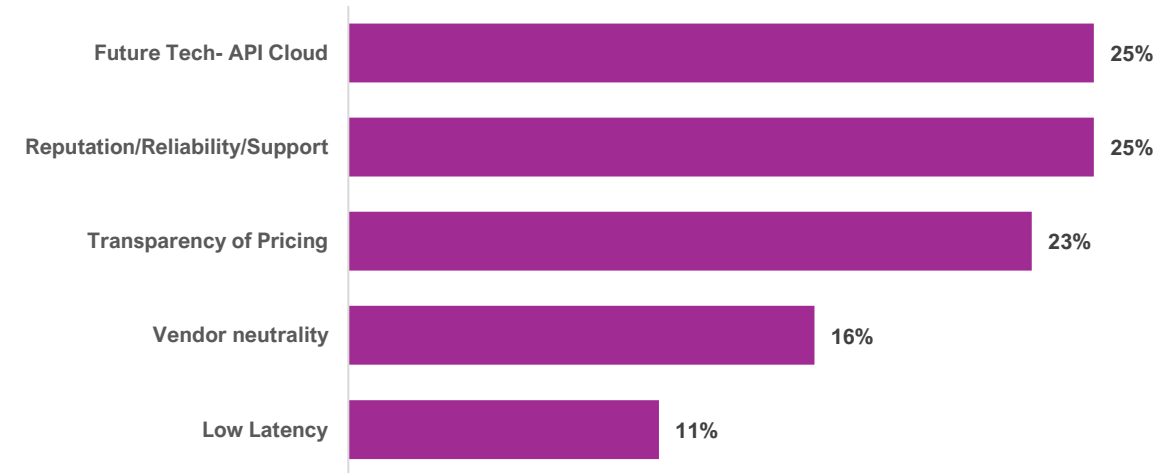
Are you planning significant changes to your connectivity infrastructure in the next 1–3 years?



Source: *Market Structure Partners Ltd Outreach*

Exhibit 3.4

What are you preparing your connectivity infrastructure for in the future? (Buy-side responses only)



Source: *Market Structure Partners Ltd Outreach*

Perfecting Partnerships

To support this, both buy- and sell-side firms are engaging more deeply with third-party vendors but demanding more modular, interoperable, cloud-ready components rather than one all-encompassing system. Reliability, stability, and support remain non-negotiable, but this is now increasingly accompanied by requirements for vendor neutrality, transparent pricing, and protection from lock-in.

This push for independence is reshaping desktop and data strategies. Although FDC3[1] adoption is still limited, many see its potential for cross-platform interoperability. Data aggregation platforms are gaining traction because they consolidate execution and market data without adding new silos. Firms are learning that holistic oversight rather than piecemeal integration is what matters for efficiency and control.

Industry forces are accelerating the transition. With major vendors ending support for client-hosted solutions, asset managers and their sell-side counterparts are having to rethink technology stacks and architectures as well as their increasingly large tech teams – even operational tasks can be outsourced, responsibility and oversight cannot.

As modernisation continues, firms are adopting standardised APIs, experimenting with low-code and no-code integration, and building around legacy EMS/OMS systems that lack the flexibility they need. Modularity is becoming critical: firms want a single connectivity layer that supports all asset classes, integrates new software tools and avoids platform sprawl.

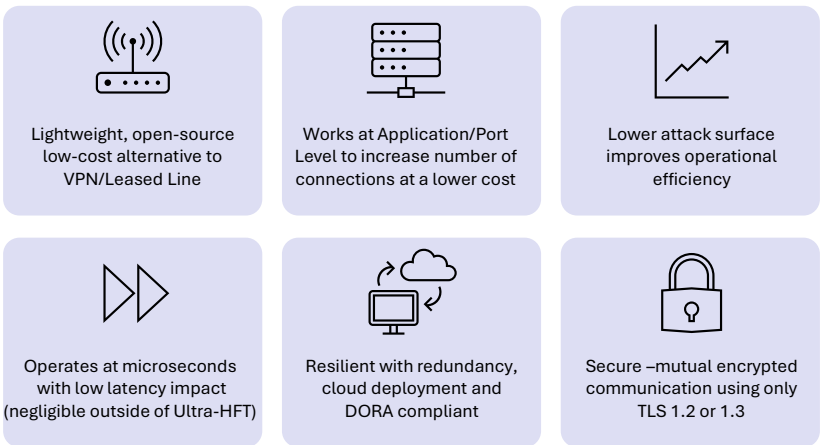
Across the industry, trading desks now understand that future competitiveness depends on a flexible, modular, vendor-neutral technology stack (see Exhibit 3.5). Technological independence is becoming a core capability – reducing fragmentation, improving oversight, and giving firms control over how they connect, integrate, and innovate for future performance.

Yet many financial firms still treat third party vendors as the lowest tier in their IT hierarchy, using them only for rapid scaling or "set-and-forget" connectivity, while retaining leased lines for latency-sensitive flows and avoiding Virtual Private Networks, VPNs due to perceived unreliability. This in-house bias is particularly endemic in sell-side organisations which further increases complexity and slows progress. In a future defined by AI-centric markets, firms will need to elevate connectivity - and the vendors who support it - to the centre of operational and strategic decision-making.

1: https://fdc3.finos.org/

Exhibit 3.5

Schematic Explaining Future Connectivity Requirements



Source: *Market Structure Partners Ltd Outreach*

"Pricing opacity from legacy NDAs and broker–vendor arrangements, combined with workflows that sit outside our core EMS, create operational friction that is worsened by inflexible vendor platforms. Result: we have incomplete data aggregation that ultimately degrades TCA and our downstream analytics"

Global Hedge Fund, Head of Execution

"Transparency around costs and commercial terms – who pays for what is something we push for even if full transparency is elusive".

Global Asset Manager, Head of Dealing

"Reliability is non-negotiable - if the pipe isn't stable, nothing else matters. Flexibility and customisation are critical; we don't want to be forced into a one-size-fits-all model".

Global Asset Manager, Head of Dealing

"We're investing in standardised APIs, FDC3 integration, and data loaders to improve interoperability. Neither our EMS or OMS is built for the flexible, API-first low-code/no-code integration we need, so we're building around them"

Global Asset Manager, Head of Dealing

"While you can rethink your tech stack – what the buy side have to remember is that you can delegate the activity – but not the responsibility. In many asset managers vendor oversight is still way too light"

Global Asset Manager, Head of Dealing

2 AI: Rewiring Market Connectivity for the Next Era of Trading

AI is already being used in trading, but scaling its usage depends on fixing connectivity. 37% of buy-side respondents are prioritising upgrades to their connectivity stack to support the shift to AI (Exhibit 3.6).

Reinforcement learning is already embedded in pre-trade decision support - routing logic, algo selection, workflow optimisation, and post-trade reconciliation - while firms continue to test productivity tools and LLMs internally to expand AI's role in execution decision making.

However, adoption is still constrained by data-quality issues, limited interoperability, and the cost of modernising legacy infrastructure, resulting in targeted rather than enterprise-wide deployment for now.

Looking ahead, firms expect AI to expand further into workflow automation, cross-system interoperability via FDC3, A2A, REST/WebSocket, and connectivity to emerging asset classes such as crypto, tokenised markets, carbon, and private assets. AI is also seen as critical for managing regulatory change - from T+1 to DORA - particularly in real-time reporting and data governance.

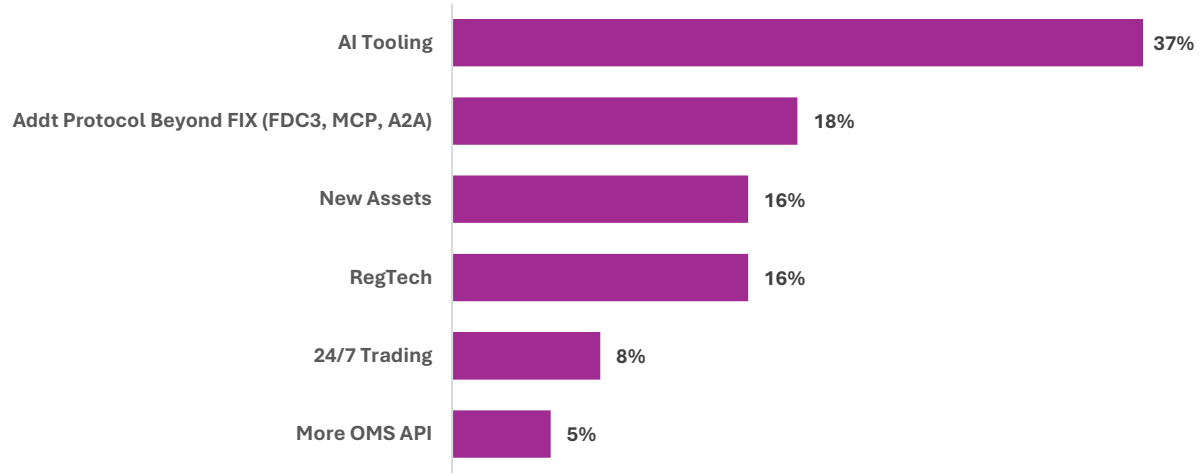
This next phase will rely on cloud-based architectures, modular OMS/EMS connectivity, and API-first machine-to-machine integrations. While wholesale AI-driven trading is not a near-term priority, the direction is clear: firms will extend AI wherever it improves decisions, reduces friction, and shortens the path from investment idea to execution.

> *"Whether it's a copilot, assistant, or an agent, AI is starting to move beyond decision support into execution workflows – that's creating some new problems, but more than anything it's pushing the old ones that have been quietly lurking in the background into the limelight"*
>
> ***Trader – Hedge Fund***

> *"The core issue is not just that data is fragmented, but that decisions are being made on top of that fragmentation. As workflows become more automated, the challenge shifts from execution itself to how decisions are structured, selected, and controlled across the system."*
>
> ***Senior Trading Data Analyst Global Asset Manager***

Exhibit 3.6

What are you preparing your connectivity infrastructure for in the future? (Buy-side respondents only)



Source: *Market Structure Partners Ltd Outreach*

Rise of the AI Agents

As adoption increases, AI in trading is shifting from individual task automation to multi-agent orchestrated workflows (Exhibit 3.7).

Rather than just deploying standalone models, trading desks are beginning to build networks of agents – spanning, for example, liquidity, strategy, news, risk, surveillance, and compliance - that interact continuously across the trade lifecycle - making connectivity as well as context critical for future trading. As these agents respond to both markets and each other on the fly, connectivity must evolve from simple message transport to an intelligent, structured, and auditable collaboration layer for both humans and automated decision-makers.

OpenClaw[2] accelerated the shift to AI agents by showing that value no longer resides in the model alone, but in the surrounding architecture that enables autonomous deployment across systems. With that shift comes a new class of risk: not just how models perform, but what is connected into the control layer, where, and with what permissions.

AI-powered brokerage agents are already being introduced in the retail space that automate trading, allocation, hedging, and cash management - creating portfolios on "autopilot".[3] While retail agents may be about to start in earnest - those who are building agents in enterprise are warning of the growing complexity when moving from "single autonomous models" towards multi-step (MAS swarms), orchestrated systems embedded in workflows. Agents need to be built as tool-using components within structured pipelines - combining data ingestion, reasoning, strategy generation, and execution layers, with explicit control, validation, and human oversight – all of which ensures connectivity has a crucial role to play in the future.

2: https://fdc3.finos.org/

3: https://www.youtube.com/watch?v=2hS2eX4Cs0Y

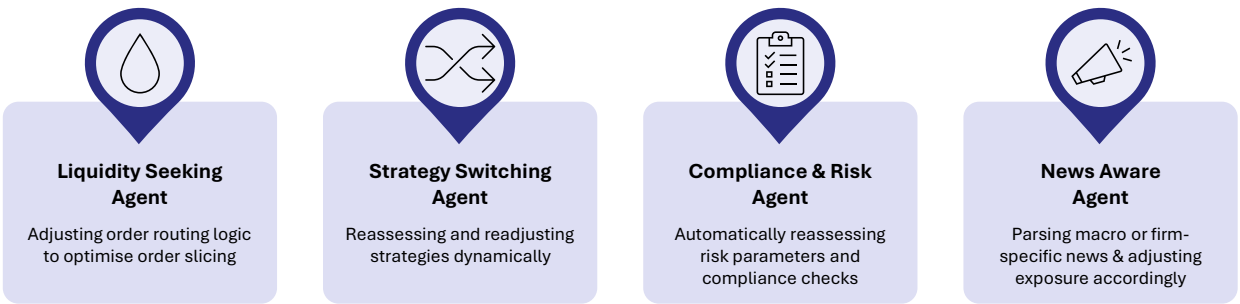
> *"Agents could reduce latency, manual effort, and errors, and begin to unify the stack. But without clean data, strong controls, and full auditability, you don't get efficiency - you just get faster, harder-to-detect failure."*
>
> ***Senior Trading Data Analyst Global Asset Manager***

> *"The firms doing anything meaningful with AI right now are mostly the mega asset managers with the resources and the profile to shout about it. For the rest of the market, the experiments are still pretty basic"*
>
> ***Trader – Hedge Fund***

> *"Retail is miles ahead, look at Robinhood vs BBG, it's night and day"*
>
> ***Trader – Hedge Fund***

Exhibit 3.7

Schematic Explaining Multi Agent Workflows



Source: *Market Structure Partners Ltd Outreach*

Connectivity as Market Fascia

AI is not just about optimising workflows; it is accelerating the shift from displayed price formation to increasingly bilateral negotiated execution. As models control routing, broker selection, urgency, and conditional logic, price discovery becomes anticipatory and model-driven, less dependent on public market interaction. Liquidity formation now hinges on orchestration logic, necessitating more direct ownership and control of connectivity infrastructure.

As multi-agent systems operate across fragmented liquidity pools, execution logic will increasingly adapt to market signals in real time, with agents responding not only to price movements but also to each other. Conditional liquidity can be triggered simultaneously, increasing threshold effects, liquidity cliffs, along with the risk of correlated withdrawal.

AI agents can detect volatility early, with risk models automatically tightening participation limits. Because execution is dispersed while clearing risk remains concentrated in CCPs, this rapid adaptation can accelerate spikes in variation margin, repo tightening, and prime brokerage contraction, amplifying feedback loops between price moves, margin calls, and liquidity withdrawal.

The Mounting Challenge

The challenge is no longer data scarcity but fragmentation and semantic inconsistency. FIX variants, custom APIs, uneven tagging, and siloed systems degrade model accuracy, slow iteration, and increase operational risk. The real bottleneck is the inability to transform scattered, cross-asset data into a unified, real-time, normalised event stream with preserved context and traceability. Without this foundation, agentic AI is brittle and difficult to supervise.

Regulators are increasing this pressure: architectural weakness now carries prudential consequences (but interestingly data quality does not). Connectivity and data must support deterministic event ordering, replayablity, failovers and embedded governance metadata to enable explainable and reconstructable decision paths. This reflects the shift towards digital assurance, where obligations, controls, data, and AI behaviour must be linked through a coherent governance layer. Without it, scalable and compliant automation is not achievable.

Fragmented protocols and data are no longer viable. Firms need interoperability layers that normalise messages, harmonise cross asset semantics and synchronise agents in real time. Without a single protocol dominating, connectivity providers must evolve into interoperability partners - offering modular, API-led frameworks that enable rapid agent onboarding and transparent economics. A unified model that ensures firms can build once and prove everywhere is fast becoming the future defining requirement for AI.

Extending standards such as FIX beyond execution into broader application workflows is one path to a shared semantic foundation, improving transparency and resilience across the trade lifecycle.

Economic pressures also reinforce the shift. Tight budgets and rising market-data costs heighten demand for efficient connectivity, while supervisory concerns about autonomous execution push AI adoption into demands for consistent data handling and explainability. Operational resilience and AI governance are raising baseline requirements.

Connectivity and the data it carries is becoming the market's real-time control layer. The success of AI in trading will depend less on model complexity and more on the strength of the connectivity and semantic interoperability. In an increasingly fragmented, cross-asset landscape, interoperability will determine which firms can deploy agentic AI with operational confidence and supervisory trust.

"We need more for AI-driven workflows and Integration with multi-protocol beyond FIX. We are preparing, but we cannot scale if the data is not clean and portable. That goes back to interoperability and data standards"

European Asset Manager, Head of Execution

"Technically it needs to be modular – we don't want 6 platforms for 6 asset classes – one pipe, one integration and the ability to plug in the tools we actually use. We've got Snowflake for flow and venue analysis - so any partner we work with needs to complement that, not create more fragmentation"

European Asset Manager, CTO

"AI-driven trading, analytics & workflows are areas we are actively discussing. Banks are finding it hard - fragmented infrastructure, legacy tech, and the cost of scaling access to thousands of clients. The ELPs are increasingly relevant – so our infrastructure has to support modular, API first connectivity"

European Asset Manager, Head of Execution

Conclusion:

From Execution Through a Venue to Execution Through a Network

Liquidity formation is changing rapidly in competitive markets, outpacing both regulation and traditional market systems. As exchanges, sell-side firms, and automated market makers increasingly overlap in function, liquidity is now dispersed across many different platforms and models. This has shaken market foundations and challenges traditional policy making:

- Reliance on a single trading venue's use of memberships and rules is no longer sufficient to uphold the integrity of an entire market or provide transparency on who can access the market.
- CLOBs are no longer the gravitational centre of trading, and, in the future ecosystem, they will be one trading model among many, not the de facto dominant venue or trading model
- Orders no longer follow a consistent linear route to a market or flow through a single market model.

In this environment, every institution faces the same challenge: to maintain the connectivity, the data and operational resilience required to participate effectively in the markets of both today and tomorrow. Firms must be able to identify, interpret, and access a constantly shifting liquidity landscape.

Execution will increasingly depend on multi-asset EMS/OEMS platforms that seamlessly consolidate all flows across asset classes and are supported by meaningful analytics, robust connectivity, and seamless interoperability.

As the buy side assumes greater ownership of its execution strategies, they will take over the responsibilities once held by brokers to optimise routing of orders to market..

This includes establishing access to all meaningful liquidity sources - rather than the cheapest or most convenient - and ensuring data is sufficiently portable to support AI-driven, automated, cross-asset decision-making.

Future defining competitive differentiators will be ownership and control of real-time connectivity architecture, the interpretation of data, and the ability to plug into liquidity networks without friction to optimise execution.

AI's success in trading will rely more on strong connectivity and seamless data interoperability than on increasingly complex models. As markets become more fragmented across asset classes, firms that can integrate systems effectively will be better positioned to use AI agents with confidence and meet regulatory expectations.

For brokers and the buy side, this requires shifting from owning connectivity to enhancing it, by delivering transparent, resilient, multi-asset access through shared, open infrastructure. For vendors, the opportunity lies in enabling genuine interoperability through modular components, secure APIs, multi-protocol support, and transparent commercial models.

Across the ecosystem, one truth is becoming clear: connectivity is no longer an operational detail – it is ***the*** market structure and the data that travels through it is pivotal to how it is used. Firms that take ownership of their connectivity will define the next generation of liquidity formation, execution quality, and sustainable competitive advantage.

The industry is moving from ***execution on a venue*** to ***execution through a network***; from broker-owned technology to participant-controlled connectivity; from asset-class silos to multi-asset ecosystems; and from fragmented processes to interoperable data flows. Those who prepare ad build for resilient, portable, multi-asset connectivity will shape the next decade of market structure. Those that do not will be structurally disadvantaged.

However, the right foundations must be in place to give all market participants the same opportunities to transform and scale secondary market activity or distortions in market structure will persist. As AI adoption accelerates, the case for co-ordinated industry action has never been stronger.

Recommendation:
An Industry Action Plan

The industry now faces a structural turning point in how market integrity is upheld and how liquidity will be accessed, aggregated, assessed, and delivered. There is no going back. Connectivity and data have become the foundations on which future market models will rest. Without harmonised data models and shared standards, firms cannot safely adopt AI, advanced analytics or real-time decision systems. To support this transition, the following action plan outlines the collective actions required across the industry to build a next generation of market infrastructure that will support market resilience and growth:

Policymakers advocating competitive markets must reframe regulatory thinking:

- **Governance of the network and the data that flows through it must be elevated.** Stronger oversight is needed, with regulators or cross-market bodies with regulatory powers managing network and data governance for their markets. (The US has historically had better mechanisms to address data governance than other competitive markets). New frameworks should enforce unified access rules and data standards across markets, with meaningful consequences for non-compliance:

  Connectivity, rather than venues, should be defined as critical infrastructure.

  - *Focus should shift from a view that any single venue is critical infrastructure and, instead, recognise connectivity as the main backbone of critical market infrastructure, treating it as a first-order market stability requirement and developing a governance framework for fair, resilient and transparent market access.*

  Include data access, quality and consistency as a market resilience and stability issue and set out policies to govern data integrity, access and transferability.

  - *The notion that market data is a commodity to be sold separately from the trading activity it underpins should be challenged because it unnecessarily restricts access to information and adversely impacts growth. The rules for access to data should be consistent across venues and asset classes.*
  - *Data standards must be mandated and enforced so that data is cleaned in real time, is consistently available and its portability is assured.*

Market participants must redefine their value propositions and place in the ecosystem, raising connectivity and data management to strategic decision making:

- **Introduce multi-port, participant-controlled connectivity architecture.** Reverse the current model where OMS/EMS platforms connect into individual broker pipes, forcing the buy-side to adapt to each broker's silo and maintain dedicated servers or VPNs for every counterparty. Replace with a model where the buy-side connects outward from a single, multi-port server, reusing the same infrastructure across brokers, SIs, and venues via lightweight encrypted channels delivering lower cost, greater flexibility, and minimal operational lift. This is the architecture that will deliver greater transparency, multi-asset workflow consolidation, and support future AI-driven execution.
- **Dismantle legacy silos and proprietary pipes.** Retire fragmented, broker-sponsored networks and duplicative, less resilient infrastructure. Replace them with modular, interoperable, participant-controlled architectures that reduce operational drag and free up capital for innovation.
- **Build continuous testing, monitoring, and resilience.** As markets move toward 24/7 operation, infrastructure validation must be continuous. Connectivity needs permanent testing and observability to ensure resiliency in an always-on trading environment.
- **Create new connectivity partnership models.** Brokers, vendors, and clients must shift to neutral, interoperability-first collaboration - shared standards, transparent service frameworks, and genuine API-first behaviours.

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The authors of this report are Niki Beattie and Rebecca Healey. In relation to this report, Niki Beattie, has been an Independent Non-Executive of one of the firms mentioned in this report and a Non Executive Director of the sponsor of this report. Between 2017 and 2022, she was Independent Chair of XTX Markets and a Non-Executive Director of iress from 2014-2025. She was also the author of the report "there's no Market in Market Data", published in February 2025 and cited in this report. Rebecca Healey serves as Co-Chair of FIX EMEA, a member of the FCA's Secondary Markets Advisory Committee (SMAC), ESMA's Securities and Markets Stakeholder Group (SMSG), and ISO TC 68 Strategic Leadership Team.