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PoV

Reimagining Reconciliations

Optimize, Build or Buy?

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1. What makes Reconciliation complex?

Reconciliation is a critical function that involves matching records between two systems (Intra and Inter). This is a crucial function that verifies the accuracy of a firm's assets and liabilities. In practice, this is an activity that provides governance over financial data and enables firms to have effective financial risk management.

Any mutual, hedge fund or alternative asset manager's first task of the day is to have data that has been reconciled between portfolio accounting systems and external counterparties like prime brokers, custodians, transfer agents, and fund administrators in terms of cash, positions, and transactions. Likewise, reconciling front office data with middle and back-office data is one of the time-critical tasks for broker-dealers.

The recon process is fundamentally complex due to a number of factors, including time-sensitive activities, poor data quality, and an absence of standardized and consistent data. However, clients expect their reconciliation partners to be technologically proficient and effective in today's fast-paced world to manage the above issues and complete recons in real-time or very close to real-time.

2. Key market factors pressuring firms to invest inreconcillations

2.1 Regulatory pressures: Regulators are increasingly focused on requiring financial institutions to establish their in-house systems and controls architecture and to provide an audit trail for any adjustments to key data points - supporting these transparency standards and offering more automation overall is crucial.

2.2 Real-time processing: Demands for accurate and fast reconciliation are rising because of a combination of varied economic conditions such as rising trading volumes due to technological advancement, fierce competition, growing emphasis on transparency, and increased regulatory scrutiny.

2.3 Cost reduction: With low margins and a constrained financial environment post-pandemic, firms are focused on reducing their operating costs—the necessity to replace staff with technology is a tipping point for tech-driven reconciliation adoption.

2.4 Client demands: Clients are increasingly scrutinizing financial organizations' internal operations during the request for proposal process. Clients are becoming pickier about their reconciliation partners, preferring those who can give real-time widgets/dashboards and have speedier onboarding timelines.

2.5 Diversified asset classes: Investors seek to diversify away from traditional asset classes and towards new asset classes such as real estate, collectibles, and digital currencies. Firms must be able to quickly integrate these new asset classes while also accommodating new client needs.

3. Need for a future-ready reconciliation tool

Due to changes in regulations and market structure, reconciliation has become more complex. Recently, Covid-19-related employee shortages and resource constraints have added to the challenges, driving capital markets firms to increase automation and reconciliation efficiency. Trends in the market and market structure changes such as the US settlement cycle moving to T+1 will increase the need for banks, buy-side and sell-side firms to have up-to-date, technology-high, robust reconciliation systems.

Long Term Trends

Growing digitalization trends in capital & money markets

- Payments, trading, finance, risk management, regulatory & compliance

Increasing complexity, speed & volume of transactions

- Demand for real-time transaction processing for algo & program trading; increase in cross-border strategy trading

Explosion in volumes and various types of data

- Disintegration of data architectures, different standards, and file formats
- Growing regulatory scrutiny on reporting & governance

Figure: 3.1 : Need for Future Ready Reconciliation Tool – Long Term Trends

Market Structure

US Accelerated Settlement Cycle to T+1:

- T+1 mandates same-day allocation and affirmations, cash and finance trade reconciliations must be completed in close to real-time, necessitating implementing robust workflows and exploiting new technologies.
- All eco-system participants, particularly asset/investment managers and broker/dealers, must review their systems and should start working on upgrading systems to meet the deadline of September 2024.

Central Securities Depository Regulation (CSDR)

- Central Securities Depositories (CSD) will levy a daily cash penalty, on banks and financial institutions that use their services, for each settlement instruction that fails to settle by the intended settlement date.

Global Risk Management Standards

- BASEL mandates financial organizations to further optimize and aggressively manage collateral and capital around the clock to minimize additional expenses by lowering leverage limits. Creating standardized, real-time reconciliation processes to guarantee firms' books and records are thoroughly balanced is one method to deal with these capital, collateral, and liquidity challenges. Reconciliation tools with an ability to mark to market (MTM), convert different currencies, and generate centralized reporting with risk alerts in real-time are gaining ground.

Figure: 3.2 : Need for Future Ready Reconciliation Tool – Market Structure

4. Is your reconciliation process up to date?

- Are your Recon Standard Operating Procedures/ Department Procedures dated? Are these procedures error-prone?
- Does the reconciliation process have multiple manual touchpoints?
- Are your Recon Analysts using EUCs/Excel based activities for complex recons?

If the answer to any of the above questions is "Yes", then it's time to review your reconciliation processes/ methodologies.

5. Is there a silver bullet for Reconciliation?

Efficiency gains result from optimizing how you work, and there are many areas in which a company can decide to invest to lower overall costs, boost productivity, and lower operational risk.

5.1. Is investing in optimization a wise choice?

There are many ways a company can choose to invest in optimization to lower overall costs and the risk of false reporting.

"Improving how you work always results in efficiency."

5.1.1 Automation: Reconciliation time and costs can be significantly reduced by automating repetitive manual tasks right from data ingestion, data extraction, transformation and loading, and transaction matching to exception management to sign-off. With automation firms maintain tighter control over which items are reviewed, annotated, and approved, and rules engines have been shown to match transactions more quickly and accurately than humans.

5.1.2 Global Reconciliation Hubs: By the business areas in scope and the specialized nature of this activity in most banks this is handled as a Horizontal function or a global reconciliation utility. It also enables an independent validation or internal check of the data booked in different systems.

Data lineage can be established throughout the reconciliation lifecycle right from data ingestion through matching, exception management, signoff, and reporting. This is made possible by **centralizing data** in one location and integrating automated reconciliation and certification processes.

Utilizing an automated process to integrate data and match transactions can reduce the likelihood of manual error by as much as 50%. Additionally, built-in audit controls can aid in ensuring adherence to regulated financial standards.

Financial firms can form a complete reconciliation picture by combining the full range of transaction-level data into a single system and automating the entire reconciliation process, from data acquisition and matching through approvals, reviews as shown in Exhibit 1.

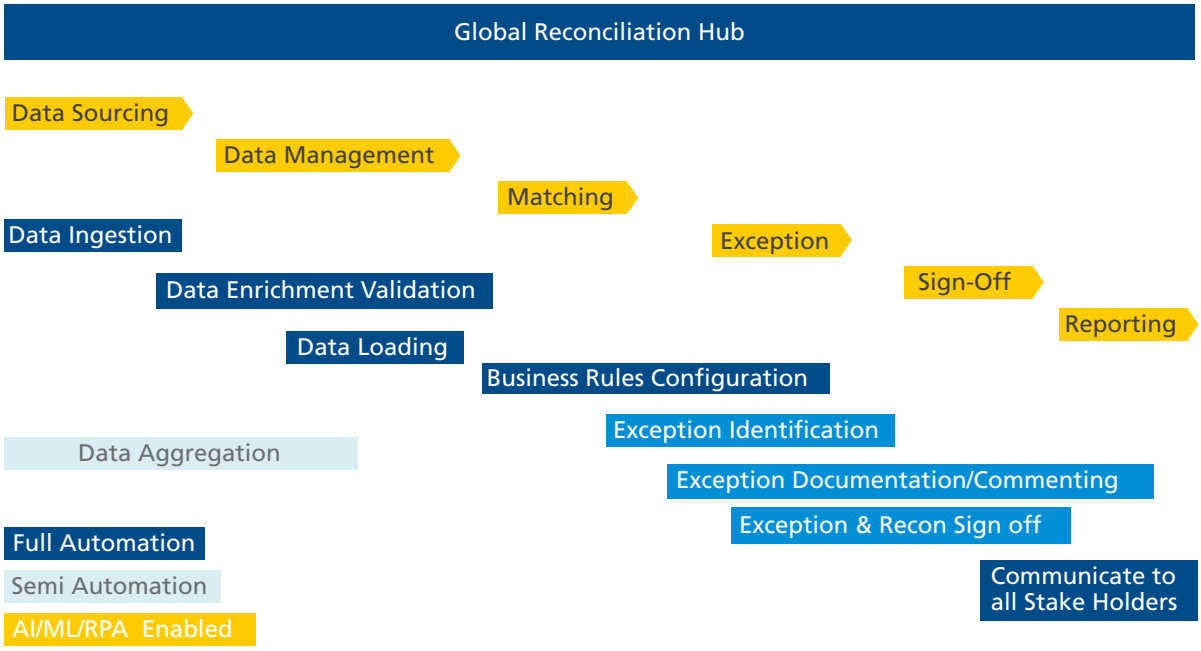


Exhibit 1: Technology play within Global Reconciliation Hub

5.1.3 Utilization of third-Party Data Aggregation Services: Reconciliations are getting significantly complicated owing to the global spread of businesses, multiple data sources, flow of data in different formats across multiple time zones, fragmented and voluminous data with varied data aggregation/granularity across systems and short timelines for completion of the reconciliation activity. The nature of the activity involves significant manual activities, and this results in higher risk exposure as well as the cost to the bank.

The collapse of the Lehman brothers resulted in Funds/Advisors dealing with multiple Trading partners as a de-risking strategy. This necessitates the aggregation of data from a number of external partners such as Counterparties, Custodians, and Prime brokers, as well as internal systems such as Order Management Systems, multiple GLs, etc.

Considering the complexity involved, Advisors & Asset managers resort to engaging the services of data aggregators who can aggregate and normalize their transactional data across their custodians, and prime brokers and send a single feed to the recon applications as shown in Exhibit 2. However, that would entail an additional cost which increases the overall cost of operations.

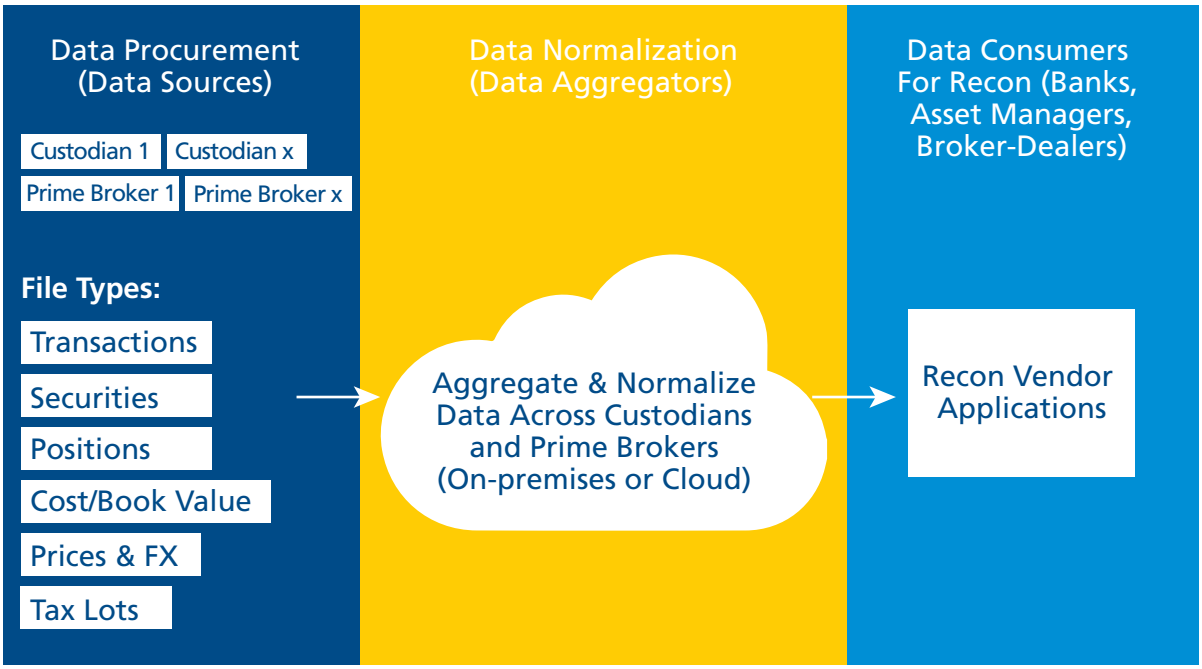


Exhibit 2 : Data Aggregation & Normalization Model

5.1.4 Recon Insourcing Vs Outsourcing: From a cost-benefit perspective, asset/investment managers/investment banks are re-evaluating their current reconciliations operating model. If they have a global footprint, they can either create a "follow-the-sun model" or, alternatively, use the BPO/KPO capabilities of a third party.

5.2 Can firms benefit from next-generation technologies?

With the introduction of new-age technologies, financial institutions can perform their current complex and time-consuming tasks in a more innovative, smarter, efficient, and near real-time manner.

5.2.1 AI/ML: The requirement to manage the exception queue through a manual process of matching and recon remains one of the major pain points in an automated world of recon. This activity is quite time-consuming it needs to be completed in a time-bound manner. As a result, banks and developers of recon applications are attempting to use AI/ML technology to learn from the manual processes over the past few years.

Financial firms are becoming smarter in terms of assigning breaks, performing match analyzes by looking at patterns and stimulating the activity of an operations team by leveraging these technologies. If correctly executed, machine learning can be used for a wide range of reconciliation-related tasks, such as predicting the best configurations for matching, data normalization, parsing unstructured data, identifying the causes of breaks, and grouping related exceptions

5.2.2 Live Streaming: The most common reason for a reconciliation break due to a batch process is "Timing Gap," which means that a record present in one dataset (Source1) is not present in the other dataset (Source2). Instantaneous and real-time data matching and reporting are possible with solutions that enable "live-streaming" of data, such as Apache Kafka, which streams data from producers to consumers using push-pull technology.

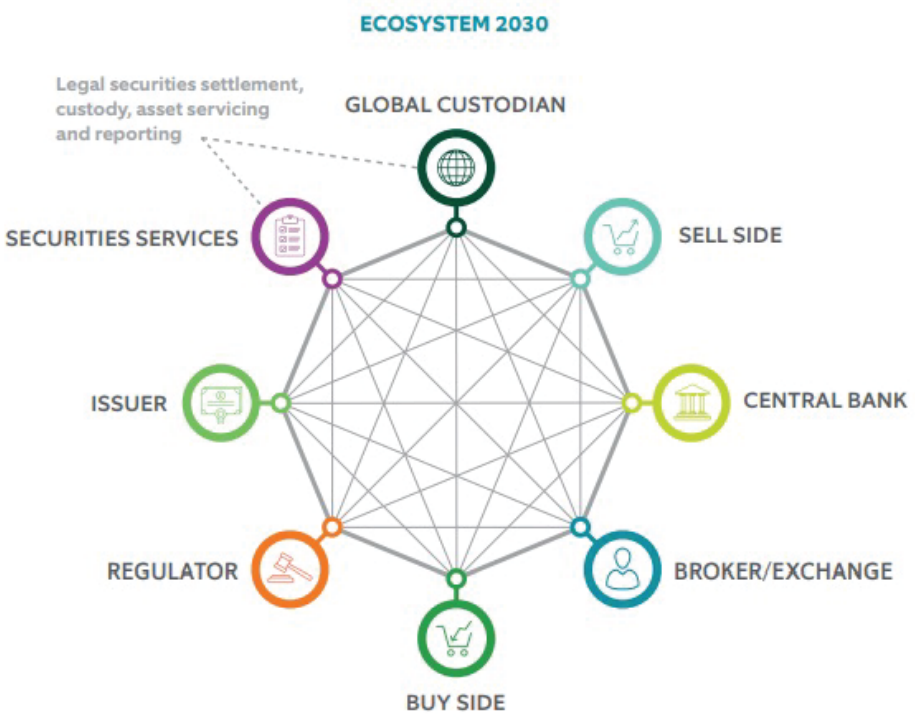
5.2.3 Intelligent Workflows: Configurable workflow functionality enables items to be governed, investigated, and corrected within a tightly controlled and thoroughly audited environment.

5.2.4 Blockchain: While there are very few use-cases currently where a blockchain-based solution can significantly boost the reconciliation process' efficiency such as Inter-company/ Inter-entity reconciliations, organizations must observe that most banks are still testing out blockchain technology, which is still in its infancy and very few commercially available solutions exist.

Hence, before deciding to carry out a large-scale implementation, it is crucial to carry out elaborate proofs-of-concept and demos to confirm the readiness of a solution.

"According to a Northern Trust research report, by 2030, future standards will be bridged by technologies like blockchain, which will also have integrated systems and networks."

The futuristic capital market ecosystem shown below will be connected by newer technologies like blockchain, which will be used by all participants in the ecosystem. (Let's hope that by then, blockchain's interoperability issues will be resolved!)



Source: Custody Reimagined: Northern Trust

6. Build Vs Buy?

"The global account reconciliation software market reached a value of US$ 2.45 Billion in 2021. Looking forward, the publisher expects the market to reach a value of US$ 5.8 Billion by 2027 exhibiting a CAGR of 14.80% during 2022-2027 (Source: businesswire)."

6.1 COTS Products (Buy): COTS product vendors improve their applications/products often in response to evolving technology while adhering to industry standards. However, due to the rise in complexity in terms of new asset classes, volumes across client-serving geographies, and market volatility, reconciliation application providers charge exorbitant license fees to support voluminous, complex, and real-time reconciliations.

Typical voluminous and complex reconciliations across market participants are shown in Exhibit 3.

Business	Participant	Key Reconciliations	Key Challenges
Buy Side	Asset Managers, Investment Managers	(Investment Accounting Vs External Parties) **1. Daily Recons:** 1.1 Cash Balance 1.2 Stock Balance 1.3 Derivative Positions 1.4 NAV Recon 1.5 P&L Recon **2. Adhoc /Seasoned Recons:** 2.1 Dividend & Income	• Data Aggregation across custodians & prime brokers • Onboarding of new asset classes such as digital and alternatives

Business	Participant	Key Reconciliations	Key Challenges
Sell Side	Broker Dealers, Investment Bankst	**1. Front office Recons:** 1.1 Trade order Management 1.2 Trade capture and Trade execution **2. Middle office Recons:** 2.1 Funds Recon 2.2 Pre-Post Settlement Recons **3. Back Office Recons:** 3.1 P&L Vs GL Recons 3.2 Confirmations Matching (Term Sheet Reconciliations) **4. Entity Specific Recons:** 4.1 Inter system Recon 4.2 Inter Company Recon 4.3 Trader P&L Recon	• Managing increasing trade volumes • Achieving data consistency across third party data providers Manual reconciliation errors
Asset Servicers	Custodians, Agent Banks	**1. Daily Recons:** 1.1 Transactions Recon 1.2 Nostro Recon **2. Adhoc /Seasoned Recons:** 2.1 Corporate Action Recon (Dividends & Income) 2.2 SSI Recon	• Managing increasing trade volumes Managing SSIs

Exhibit 3: * Reconciliations with Voluminous data * Reconciliations with Complex Data

6.2 Bespoke Development (Build): Financial conglomerates with multiple business divisions, such as wealth and asset management, asset servicing, prime brokerage, and retail perform thousands of reconciliations every day and pay exorbitant fees to application vendors, prompting them to consider developing their own internal reconciliation platform and migrating all existing recons into a single in-house platform, thereby reducing overall costs. (Big companies have started a pilot program to see if it works, even though this is still not a preferred model.)

7. FinTech with next-generation reconciliation technologies

Systems for reconciliation are evolving. Systems that span the entire transaction life cycle are replacing conventional post-settlement trade and cash reconciliation methods (order management, trade execution, trade allocation, affirmation and confirmations, trade matching, settlement, etc.). The new systems have limitless matching capabilities and can handle complicated data processing and general reconciliation. In an effort to achieve processing that is close to real-time, modern systems also semi-automate exception management.

Securities firms are closely examining their middle- and back-office reconciliation procedures, considering the focus on operational risk and business efficiency. Modern reconciliation platforms aim to enhance the reconciliation process by increasing the accuracy of the information and automating operational flows throughout the transaction life cycle.

While platforms such as Tookitaaki are enabling AL/ML technology to other reconciliation vendors by adding a new layer of automation to an existing reconciliation landscape, platforms like Smartstream TLM are aiming to provide end-to-end reconciliation services to clients of any size and complexity.

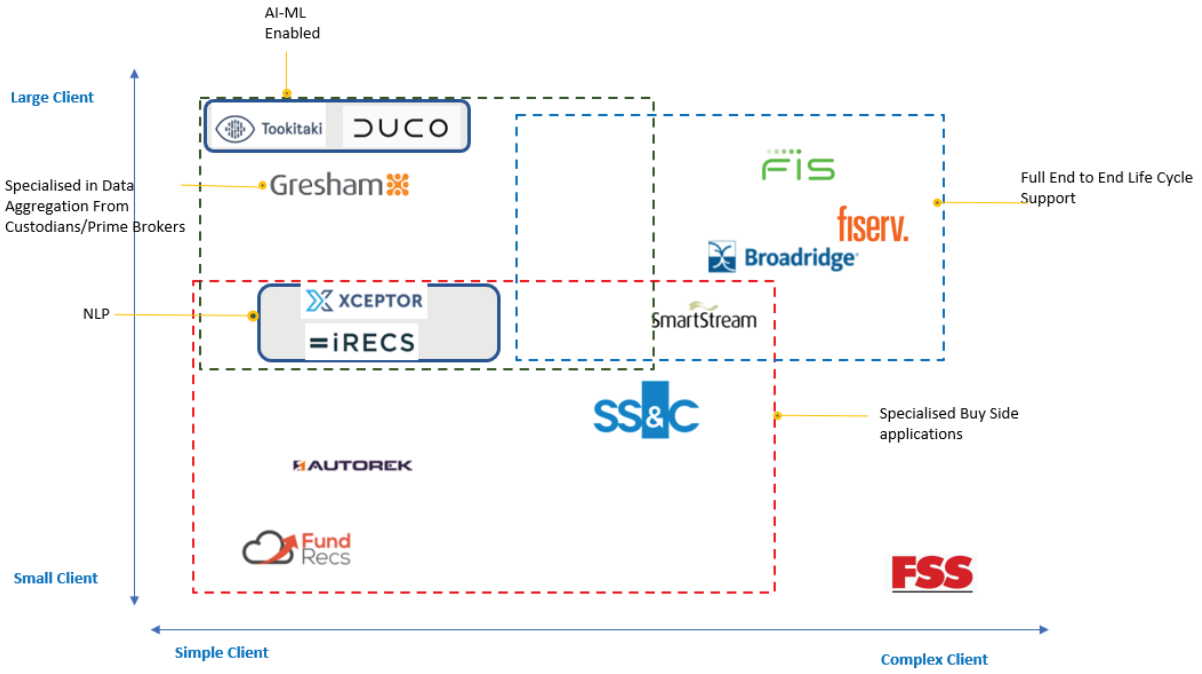


Exhibit 4: Reconciliation Fintech Landscape.

Source: LTI Research, ICMA Operations Fintech Directory

Research Criteria

- Position, Trade & Cash reconciliations
- Three-way reconciliation
- Nostro & Depo Reconciliations
- Fund NAV reconciliation
- Inter System Reconciliations
- Break reasons/Comments provision
- Configurable Recon attributes
- User-friendly tolerance rules
- Support for electronic communication standards and protocols
- Posting amendments and cancels to internal systems

8. Conclusion

While there is no one-size-fits-all solution for effective reconciliation, there are several approaches to achieving an efficient recon process. A financial firm may want to choose between optimizing existing processes and infrastructure, developing a new operating model, or migrating to a new COTS product that can solve all of is problems and reduce total cost of ownership (TCO) and operational risk.

The successful adoption of new-age technologies to support reconciliation processes is critical for firms when migrating to faster settlement cycles such as US T+1 settlements.

The need for data integrity and reconciliation processes will continue to evolve with new asset classes and new regulations. Firms must make sure they have the right reconciliation application suite and a supporting implementation partner who understands the reconciliation landscape and can help achieve operational efficiency at an optimum cost.

The need for self-servicing capabilities will increase as capital markets organizations try to cut back on expensive and time-consuming internal IT investments. Solutions that enable business users to enroll and manage reconciliation quickly and simply without depending on vendor partners or internal IT employees will be highly sought after.

It's a moment to ponder; begin redefining your approach to reconciliation right away.

About the Authors

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References

https://ihsmarkit.com/research-analysis/the-move-to-t1-in-the-us-who-really-benefits.html

https://www.northerntrust.com/africa/insights-research/editorial-articles/asset-servicing/custody-re-imagined

https://lntinfotech.sharepoint.com/:b:/s/BFSDomainTraining/EVrqH41ZzO1KhrJFnEFf0C0BibZRb5dDWVTDqRbZRQOYaQ?e=QysrcG

https://www.businesswire.com/news/home/20220531005562/en/Global-Account-Reconciliation-Software-Market-2022-to-2027---Industry-Trends-Share-Size-Growth-Opportunity-and-Forecasts---ResearchAndMarkets.com

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