MiFID II Spending and Solutions Landscape

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opimas

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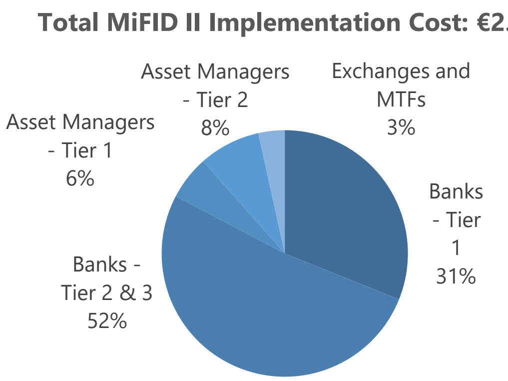
EXECUTIVE SUMMARY

Complying with MiFID II will be a pricey exercise, with total implementation costs exceeding €2.5 billion. This bill will remain high, with over €700 million required to maintain compliance annually over the next five years.

FIGURE 1. INDUSTRY SPEND ON INITIAL MIFID II IMPLEMENTATION



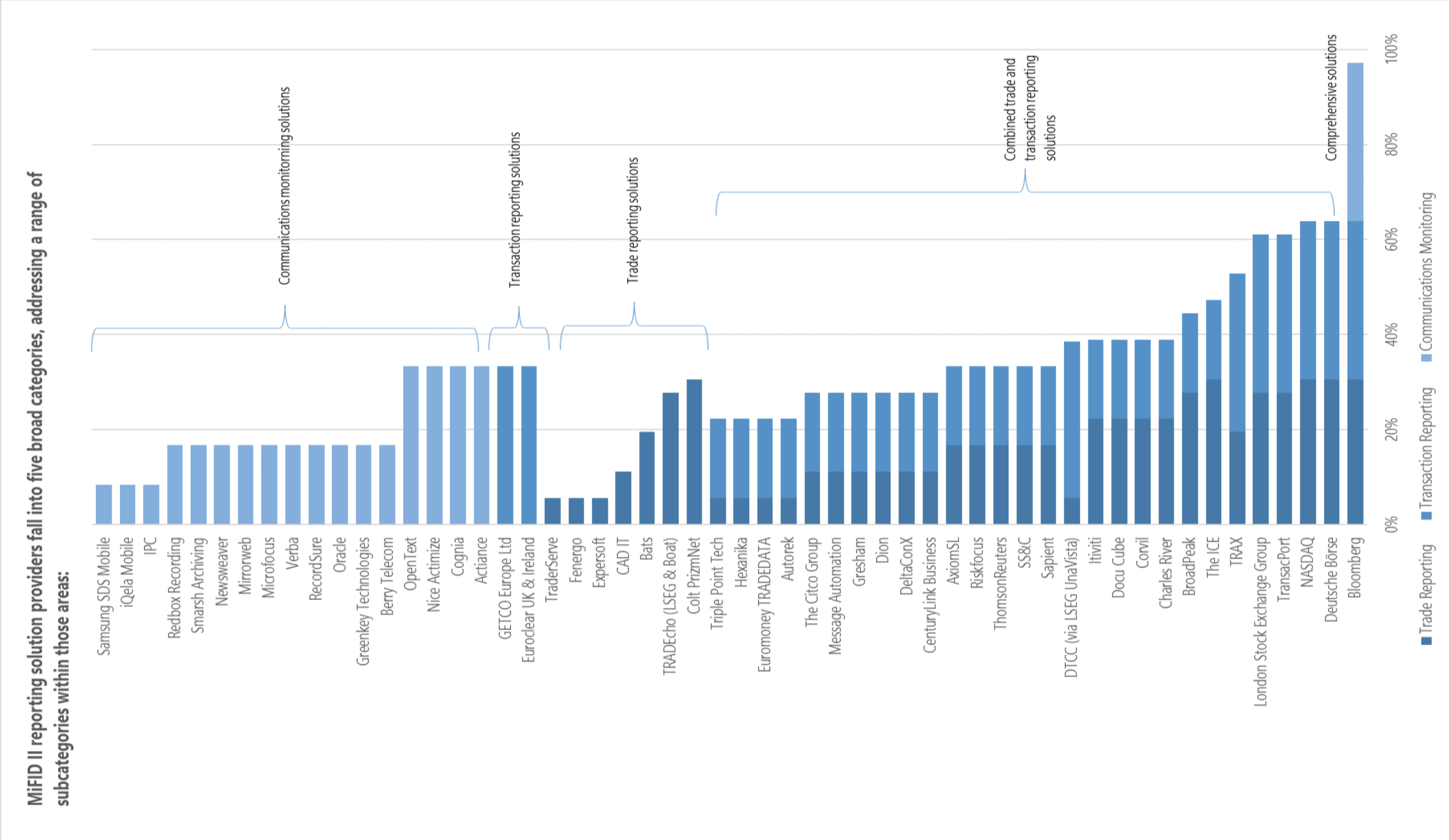
Source: Opimas Analysis

The largest tier one banks will each spend in excess of €40 million to comply with MiFID II. Although second and third tier banks will spend only about a fifth each compared to their larger competitors, their numbers ensure that they will bear over half of the burden of implementing MiFID II. While many asset managers will be required to implement a reporting infrastructure for the first time, they will spend far less than banks, who will account for over 80% of spending (Figure 1).

While point solutions abound, few offer a comprehensive solution across trade reporting, transaction reporting, and communications monitoring (Figure 2). Bloomberg offers the broadest range of coverage, spanning all three areas, while several players are offering combined trade and transaction reporting services – notably the large exchanges, Deutsche Börse, London Stock Exchange Group, and Nasdaq.

As most affected asset managers need to build MiFID infrastructure from the ground up, providers playing across multiple categories are best positioned to scoop up this group's expected €350 million initial compliance spend (Figure 2).

FIGURE 2. RANGE OF OFFERINGS OF SOLUTION PROVIDERS[1]



Source: Opimas Analysis

[1] The percentage below do not represent an evaluation of the providers' solutions, but only reflects the existence of an offering in the MiFID II requirements subcategories (for more details go to the APPENDIX on page 26)

INTRODUCTION

As demonstrated by the previous MiFID regime, failure to meet MiFID II's revised requirements can produce severe reputational and financial risks. BofA Merrill Lynch, Deutsche Bank, and RBS can all sing confirming tales of woe (though they are in fine company).

To contend with the complexities and costs of MiFID II, market participants must thoughtfully prepare for January 2018. Firms need to spell out their compliance plans, find ways to minimize costs, and identify the vendors best positioned to serve their needs. These efforts are particularly important given that the initial cost of implementing MiFID II compliance is expected to surpass €2.5 billion. Ongoing costs are forecasted at over €700 million annually across the market for the subsequent five years.

These forecasted spends vary dramatically between different types of market participants and regulatory categories. In this report, banks, asset managers, and exchanges will familiarize themselves with the weighted impacts of different aspects of MiFID II, and the corresponding costs they need to budget for. This report then introduces the vendors who have already hung out their shingles to compete for MiFID II market share, detailing which elements of the regulation they provide solutions for. The vendor coverage information provided in this report is not exhaustive and has been gathered via public sources .

From a vendor perspective, this research also draws attention to sections of the market and participant types that are currently underserved, and calls out the areas where competition for spend is most intense.

MIFID II REGULATORY CATEGORIES

The updates brought on by MiFID II are widespread and costly, and extend many of the requirements of MiFID to a much broader range of asset classes. Investment firms must pay attention and budget for the following regulatory categories:

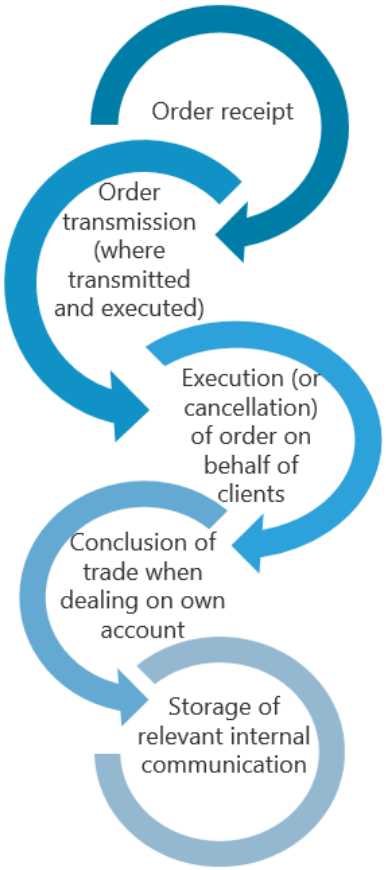
- Trade reporting
- Communications monitoring
- Trade reconstruction
- Transaction reporting
- Investor protection
- Best execution
- Algorithmic strategies
- Dark pool restrictions

TRADE REPORTING

Under MiFID II, investment firms must immediately submit information about instruments traded on a trading venue (Regulated Market, Multi-lateral Trade Facility, Organised Trade Facility, and Systematic Internaliser) to an Approved Publication Arrangement (APA). This information includes price, volume, and time of trade, and requires firms to appropriately identify the instrument in question and document the selection of execution venue. MiFID II expands trade reporting requirements both in breadth (now including non-equities), and in depth, requiring more detailed information. The APA makes this information public in as close to real time as possible, and provides free access after a delay of 15 minutes (Figure 3).

All internal communication relevant to a transaction must also be monitored and archived, even when an order is modified or ultimately cancelled.

FIGURE 3. DATA REQUIRED FOR TRADE REPORTING VIA AN APPROVED PUBLICATION ARRANGEMENT



Source: MiFID II, Opimas

COMMUNICATIONS MONITORING

MiFID II demands that market participants record and store all voice and text communications relevant to a trade for a minimum of five years. In certain cases, two additional years of archiving can be demanded by a member state's National Competent Authority (NCA). This archived information must be tamper-proof.

The new regimen also asks firms to increase efforts made to monitor employee communications for compliance with broader financial markets regulations, and to be able to demonstrate progress made in this direction. Because local privacy laws vary, some discretion is given regarding the scope of this surveillance. Improving communications monitoring and issue-flagging capabilities is required by MiFID II, but firms will likely be able to leverage these regulatory requirements to help mitigate other risks to their business – both intentional and accidental.

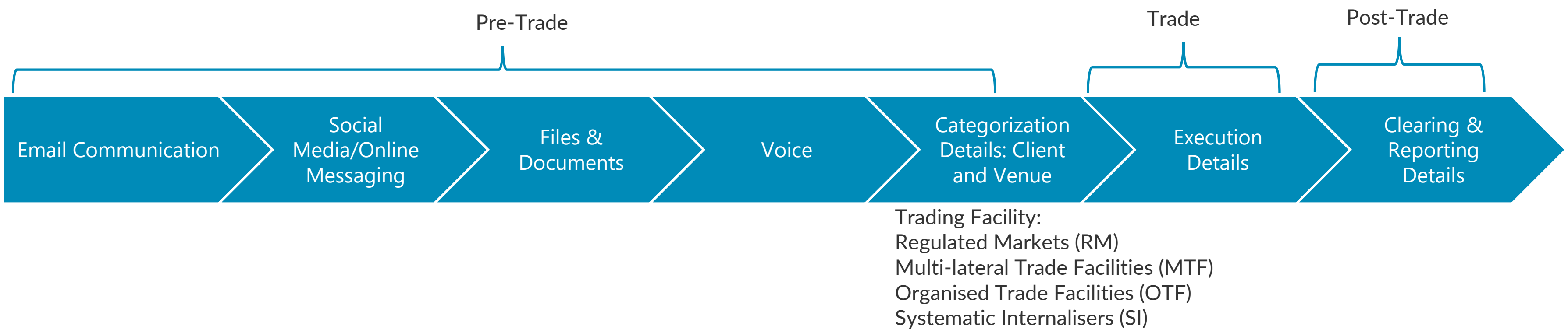
When requested, a firm must be able to reconstruct all internal communication related to a transaction.

TRADE RECONSTRUCTION

Under MiFID II, all firms with trade reporting obligations must have the capability to, upon request from a client or regulator, reconstruct a trade in its entirety (Figure 4).

The information required in the reconstruction includes all voice and text communication, the categorization of venue, client, and instrument type, execution details, and all clearing and reporting details that had previously been collected for submission to an APA.

FIGURE 4. DATA REQUIRED FOR TRADE RECONSTRUCTION



Source: MiFID II, Opimas Analysis

TRANSACTION REPORTING

Just as with trade reporting, MiFID II transaction reporting demands reporting of more transactions, more instruments, and more market participants. The number of reportable data fields has been increased to 65 from 23. Reports now require identification of the trader or algorithm involved in a trade, and acknowledgment of short selling, even when an order is not ultimately executed. While more detailed than the trade reporting requirements, transaction reports have T+1 to submit via an Approved Reporting Mechanism (ARM). Another difference is that transaction reports are not made public without a retrospective inquiry.

These 65 fields must be reported through an ARM or via the trading venue where the trade took place. Instrument classification data is required for all asset classes, and the selection of the correct trading venue must be demonstrated for best execution purposes. Firms using distinct order management systems for different asset classes will need to consider consolidating data post-trade, to submit transaction reports efficiently and cost effectively. This will be especially challenging and essential for tier 1 banks.

ARMs connect directly to the relevant National Competent Authority (NCA) to spare firms the need to construct connections themselves. ARMs are compatible with an array of industry data formats, and can accept client data from multiple sources. They also determine which transactions flow to which regulatory authority, and submit the necessary reports accordingly. ARMs also are responsible for masking private data and using Legal Entity Identifiers.

TABLE 1. INSTITUTIONS WITH ARM STATUS

Deutsche Börse	Exchange
London Stock Exchange Group (UnaVista)	Exchange
Nasdaq	Exchange
Euroclear UK & Ireland (CREST)	Securities depository
Trax	Market data vendor
GETCO Europe	Investment Firm
Abide Financial (TransacPort)	Reporting provider
Bloomberg	Market data vendor

Source: FCA, FSA, Company websites

Some ARMs, like UnaVista's MiFIR Accelerator, are helping firms test their level of data reporting preparedness and identify gaps before January 2018.

INVESTOR PROTECTION

MiFID II also expands investor protection requirements. For product governance, firms will need to undergo strict stress testing of products, and share detailed information with clients on each instrument under consideration. They will need to demonstrate a client's suitability for each potential sale, and document that sufficient efforts have been made to place the investor's interests first. MiFID II also extends the ban on inducements, in all forms, from third parties to include portfolio managers, and furthers the unbundling of research.

BEST EXECUTION

Under the first iteration of MiFID, best execution requirements essentially demanded firms make their policies publicly available. This meant that many firms covered their bases by adding all-encompassing and mostly vague best execution mission statements to their websites. To truly get a sense of a firm's execution track record, clients needed to look at a firm's overall performance, rather than its best execution policy.

MiFID II bolsters what is required for best execution compliance by requiring firms demonstrate they have made ample efforts to meet their own best execution standards. This includes publicising the top five venues they dealt with for each subclass of financial instrument they trade. On an annual basis, execution quality must be reported along with relationships with execution brokers, breakdown of order types, and execution venue fee arrangements. MiFID II also demands that firms show where corrective action has been taken when a shortcoming is found.

To demonstrate best execution efforts, firms must consider many standard factors including price, costs, speed, likelihood of execution/settlement, size, etc. Instigated by MiFID II, however, we have already seen some firms commit to certain best execution priority factors as a competitive advantage.

Saxo Bank, for instance has switched from a quote-driven to an order-driven execution model, giving their clients more direct control and trading oversight. In this model, clients can set preferences and priorities, including desired price levels or fill ratios. With this change, they hope to offer the potential for price improvements on every trade, and make partial fills possible. Algert Global, an asset management firm, has also taken a deliberate step in differentiating its best execution policy by marketing its efforts in prioritizing the identification and correction of information leakage sites and quantifying trading impact.

MiFID II also demands that trading venues provide free execution quality reports in a format easy for clients to digest.

ALGORITHMIC STRATEGIES AND HFT

Because of the benefits High Frequency Trading (HFT), including increased liquidity, reduced short-term volatility, and the potential for better trade execution for clients, MiFID II does not seek to explicitly constrain HFT or the use of algorithmic strategies. Instead it aims to contain potential risks and abuses by rolling out strict reporting requirements. MiFID II additionally requires firms using these strategies to make internal changes to their staff allocation, implement dead-stop capabilities, heed Order to Trade Ratio (OTR) limits, and observe the restricted market making hours.

The key reporting elements laid out for trade and transaction reporting in other regulatory categories are the same, though firms using algorithmic strategies must additionally identify which algorithm is used for each transaction. Firms must also maintain logs for five years on edits to and testing of the algorithms, risk controls, and alterations to any involved systems. When prompted, firms must be able to demonstrate that appropriate efforts have been made to monitor the behaviour of algorithms, both within testing scenarios and once live in the market.

DARK POOL RESTRICTIONS

As with firms using algorithmic strategies, reporting requirements also extend to dark pool trading, which currently account for about 10% of liquidity in European equities. MiFID II will close broker crossing networks, require midpoint execution for dark pool trading on MTFs, place a 4% volume cap on dark pool trading per trading venue, and impose an 8% cap on dark pool trading across the European Union.

Dark volumes for each venue and the whole market, on a stock-specific basis, will be calculated over a rolling 12-month window. This means activity in January 2017 will influence whether some stocks are locked out of dark pools in 2018. If a cap is breached, dark trading for that security will be suspended for the next six months. Orders above set sizes are exempted from MiFID II's caps under the Large in Scale (LIS) waiver.

Because of these caps and exemptions, we expect to see a merging of algorithmic orders to increase order sizes. Several stock exchanges including London Stock Exchange Group, Bats Europe, and Deutsche Börse have already introduced ways to trade large orders that take advantage of this waiver. We will also likely see volumes moving from dark pools to lit exchanges.

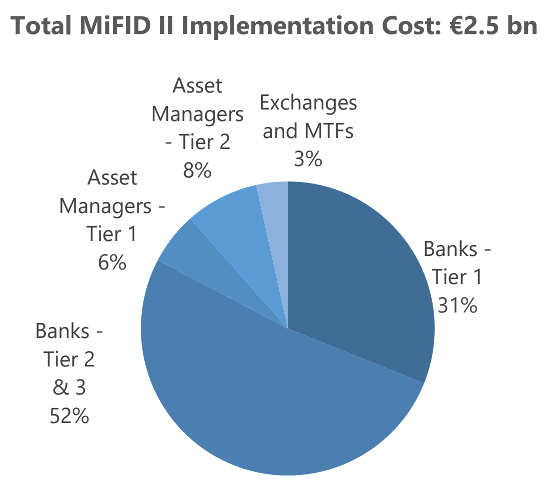
MIFID II SPENDING FORECAST

TOTAL INITIAL AND ONGOING SPEND

The MiFID II regulatory categories outlined above will cost the market over €2.5 billion. Of this spend, almost 83% will come from banks (Figure 5), and 14% from asset managers. Although banks as a group will spend more, asset managers will be uniquely affected because they are mostly implementing this infrastructure for the first time. Individually, the twenty tier 1 banks will spend nearly six times as much as their two hundred tier 2 and 3 counterparts in preparation for MiFID II. As a group, however, tier 2 & 3 banks eclipse tier 1 bank spending by nearly double.

Spending by the market to maintain MiFID II compliance will total €720 million annually for five years before decreasing slightly (Figure 6). Banks will be responsible for 74% of this repeated spend. Once again, tier 2 & 3 banks will collectively spend the most - €365m annually to maintain MiFID II compliance across all regulatory categories. Vendors targeting tier 2 & 3 banks will find a well-stocked pond of prospective clients.

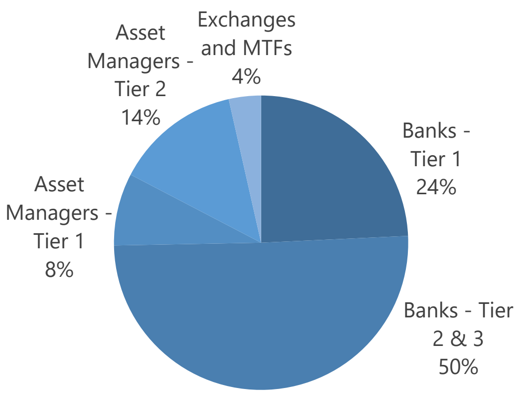
FIGURE 5. INDUSTRY SPEND ON INITIAL MIFID II IMPLEMENTATION



Source: Opimas Analysis

FIGURE 6. INDUSTRY SPEND ON ONGOING ANNUAL MIFID II COMPLIANCE

Half of the annual € 724 m that will be spent on MiFID compliance will come from second and third tier banks



Source: Opimas Analysis

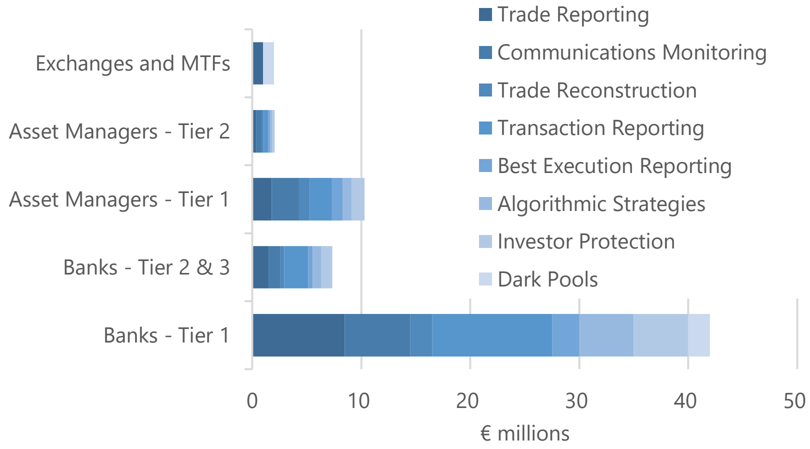
AVERAGE MARKET PARTICIPANT SPEND

Individual tier 1 banks lead the pack with an expected €42 million average implementation and €9.4 million annual maintenance spend (Figure 7 and Figure 8). The fifteen tier 1 asset managers follow with an expected €10.3 million average implementation and €4.5 million maintenance spend. Individual tier 2 & 3 banks and tier 2 asset managers will spend about a fifth of what their tier 1 counterparts are budgeting.

Exchanges and MTFs, who already trade report, will spend significantly less in preparation for MiFID II. As a group, they will spend about €88 million before January 2018, and €26 million on annual maintenance. Solutions targeting exchanges and MTFs will naturally face a smaller market.

FIGURE 7. AVERAGE MARKET PARTICIPANT SPEND ON INITIAL MIFID II COMPLIANCE

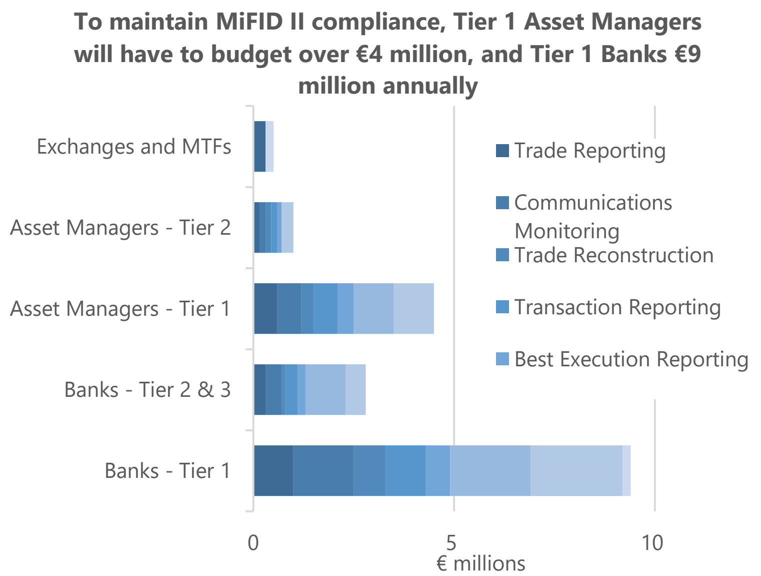
A Tier 1 Bank can expect to spend € 42 million on initial efforts for compliance with MiFID II



Source: Opimas Analysis

Tier 1 banks will spend about four times more than tier 1 asset managers on initial implementation, but only two times more on annual maintenance (Figure 8). This largely comes down to the high front-end costs tier 1 banks will face reconfiguring complex order flow systems for transaction reporting requirements across asset classes.

FIGURE 8. AVERAGE MARKET PARTICIPANT MIFID II ANNUAL ONGOING SPEND



Source: Opimas Analysis

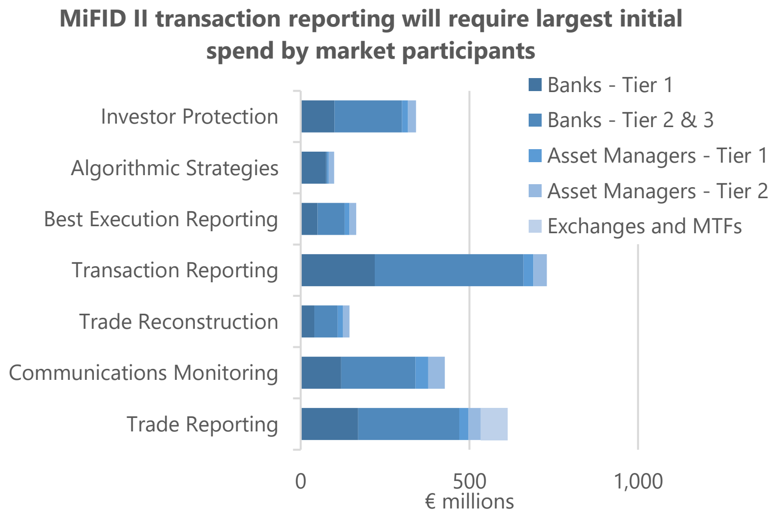
TOTAL INITIAL AND ONGOING SPEND BY REPORTING CATEGORY

Individual tier 1 banks will spend the most updating their trade and transaction reporting systems – about €2 million each. Total market spend on MiFID II transaction reporting preparation will exceed €730 million. This is followed by trade reporting at €613 million, communications monitoring at €428 million, and investor protection at €342 million (Figure 9).

Because spend on algorithmic strategy and high frequency trading compliance for tier 1 banks is a whopping average of €5 million, and €2 million annual maintenance, we expect to see some tier 1 players exiting or shrinking this line of business.

The proportions of spend per regulatory category changes after the initial implementation. While maintenance expenditures for transaction reporting, trade reporting, and communications monitoring are considerable, the lion's share of ongoing maintenance will be spent on sustaining investor protection standards.

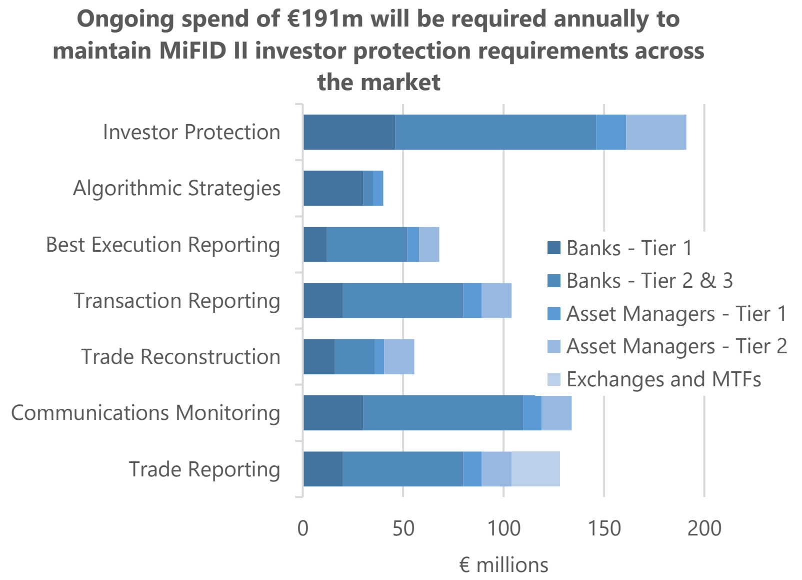
FIGURE 9. INITIAL IMPLEMENTATION SPEND BY MIFID II REPORTING CATEGORY



Source: Opimas Analysis

Investor protection comprises only 13% of initial compliance spend across the industry, but requires 26% of annual ongoing spend (Figure 10). This jump is largely due to long-term changes firms will make to meet bolstered client suitability testing, research unbundling, inducement management, and client reporting requirements.

FIGURE 10. ANNUAL ONGOING MIFID II SPEND BY REGULATORY CATEGORY



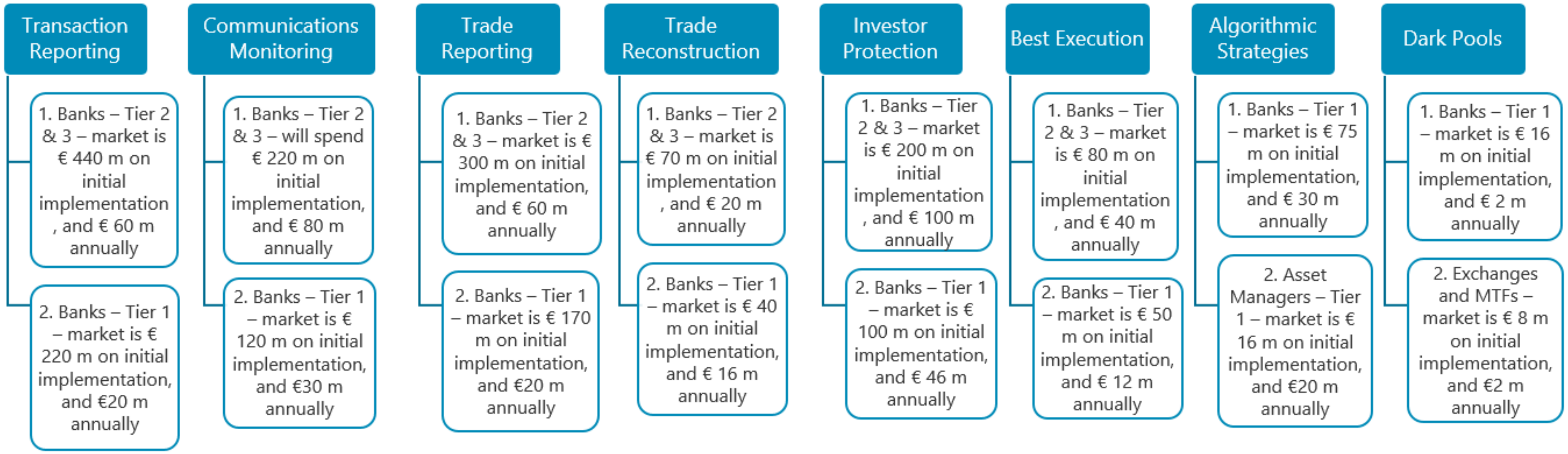
Source: Opimas Analysis

Maintaining algorithmic strategy and HFT compliance will present a particularly high expense for tier 1 banks. This increased cost of running business will force some tier 1 banks and asset managers to seriously consider the viability of this line of business.

MiFID II vendors should heed the regulatory categories and types of market participants where the spend to number of solutions on the market provides the most opportunity for success

Figure 11). In most categories, tier 2 & 3 banks represent the largest pools of opportunity, though changing requirements for algorithmic strategies and dark pools offer different recommended targets – tier 1 banks and asset managers, and tier 1 banks and exchanges, respectively.

FIGURE 11. LARGEST MARKETS OF INITIAL AND ONGOING MIFID II SPEND BY REGULATORY CATEGORY



Source: Opimas Analysis

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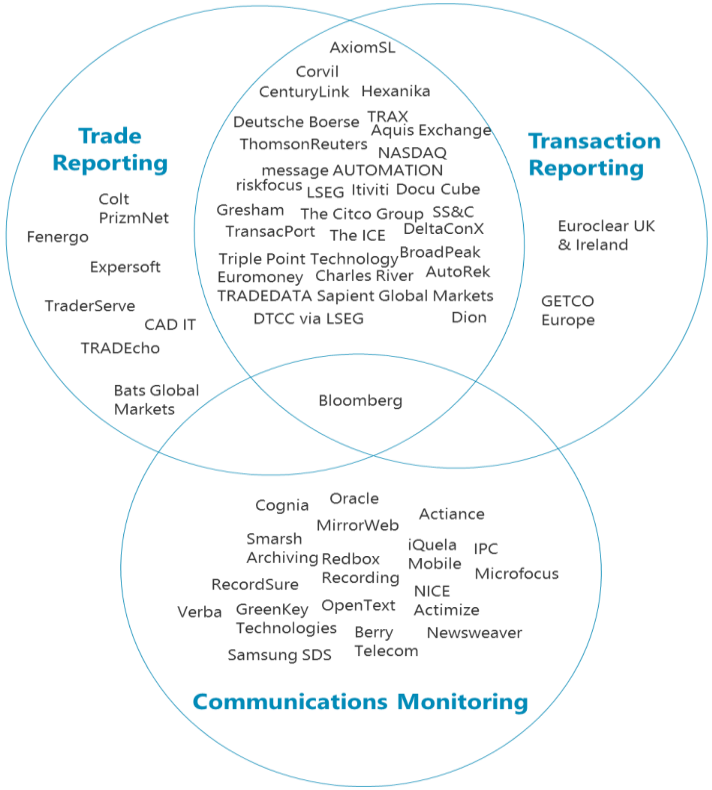
LANDSCAPE OF MIFID II SOLUTION PROVIDERS

No market participant remains untouched by MiFID II, although the biggest changes and spends will be required of individual tier 1 banks and asset managers. Solutions live across all previously discussed regulatory categories, but we will focus a flashlight on the solutions playing in trade reporting, transaction reporting, and communications monitoring (Figure 12). These three regulatory categories will require extensive initial and ongoing investment with an external solution provider.

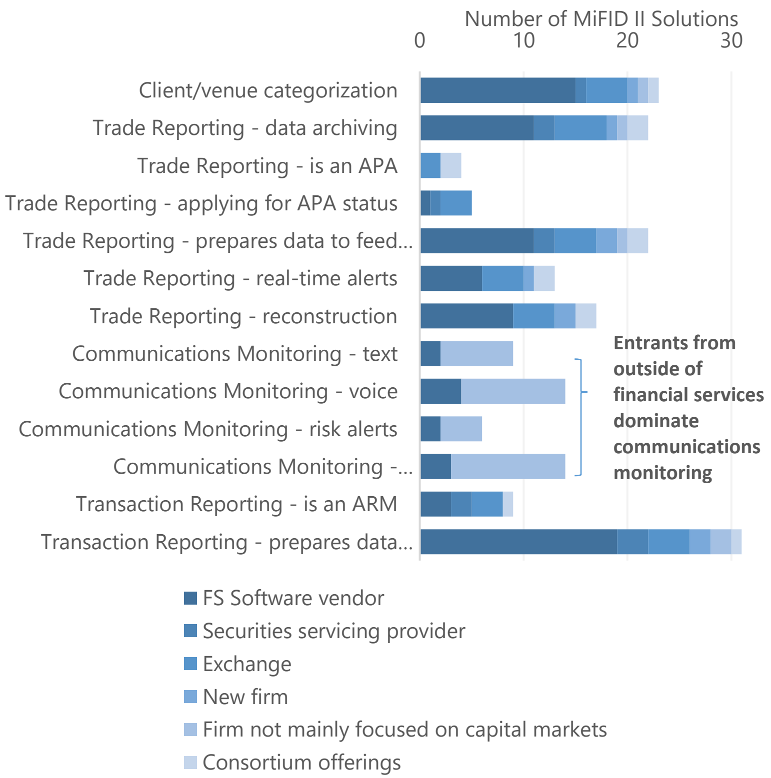
Most MiFID II solutions focus on either communications monitoring, or both trade and transaction reporting. It is rare for solutions to cover all three areas. As many asset managers will install MiFID II compliance infrastructure for the first time, an end-to-end solution may hold a particular appeal to them. The potential initial implementation market for asset managers is over €300 million, and annual ongoing maintenance is over €100 million. Solutions offering both trade and transaction reporting, and Bloomberg which covers all three categories, are well positioned to take advantage of these circumstances.

FIGURE 12. MIFID II SOLUTION PROVIDER LANDSCAPE



Source: Companies, Opimas Analysis

FIGURE 13. ORIGINS OF SOLUTIONS MARKETED TOWARDS SPECIFIC REGULATORY SUBCATEGORIES



Source: Opimas Analysis

For many banks who have already installed a degree of MiFID infrastructure, a point solution may be sufficient to meet the requirements of MiFID II (Table 2 and Figure 19).

These solutions are being provided by technology vendors, exchanges, securities servicing providers, consortium offerings, firms not typically focused on capital markets, and a few start-ups. While financial software providers are most likely to offer trade and transaction solutions, entrants from outside of financial services dominate the communications monitoring field (Figure 13).

COMPETITION FOR MARKETSHARE

Of the solutions vying for MiFID II business, trade reporting looks to be the most competitive (Figure 14). Thirty-six solutions are competing for the just over €600 million trade reporting business. In comparison, 18 communications monitoring solutions are competing for a piece of the €400 million spend.

Solution providers should be cognizant of the discrepancy between the amount different market participants will be spending to comply with MiFID. Although banks will spend much more than asset managers, the same number of solutions are targeting both.

FIGURE 14. HEATMAP OF SPEND PER REGULATORY CATEGORY TO SOLUTIONS AVAILABLE

	Trade Reporting	Transaction Reporting	Communications Monitoring
Number of Providers			
Banks - Tier 1	31	28	16
Banks - Tier 2 & 3	30	27	17
Asset Managers - Tier 1	31	27	16
Asset Managers - Tier 2	31	27	16
Exchanges & MTFs	10	9	1
Spending Level € m			
Banks - Tier 1	170	220	120
Banks - Tier 2 & 3	300	440	220
Asset Managers - Tier 1	27	30	38
Asset Managers - Tier 2	36	40	50
Exchanges & MTFs	80	0	0
Ratio of Spend to Number of Providers			
Banks - Tier 1	5.5	7.9	7.5
Banks - Tier 2 & 3	10.0	16.3	12.9
Asset Managers - Tier 1	0.9	1.1	2.4
Asset Managers - Tier 2	1.2	1.5	3.1
Exchanges & MTFs	8.0	-	-

Source: Opimas Analysis

TRADE REPORTING SOLUTIONS

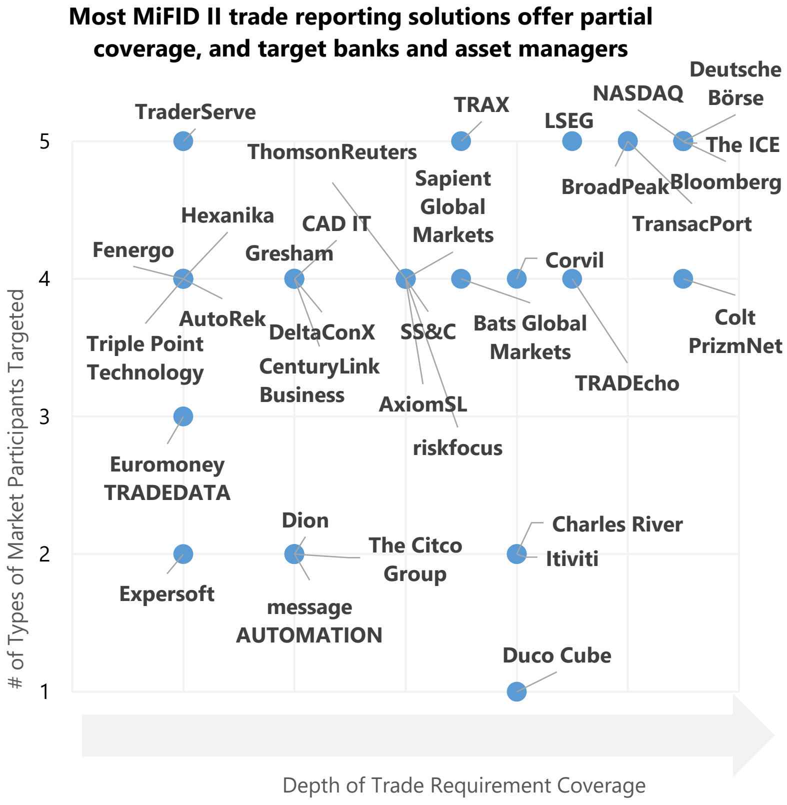
Of the thirty-six trade reporting solutions marketed, Deutsche Börse, the ICE, Nasdaq, Bloomberg, and Colt PrizmNet are most equipped to handle MiFID II's real-time requirements. If their plans to apply for Approved Publication Arrangement status succeed, there will be five fully MiFID II compliant trade reporting offerings on the market. BATS is also considering applying for APA status, but with a narrower scope of coverage.

Some firms have opted out of becoming APAs because requirements were too vaguely defined, including uncertainty over how regulators will handle real-time reporting requirements during off hours. Both TRADEcho and Colt PrizmNet plan to leverage LSEG's future APA status within their consortium offering.

While most MiFID II trade reporting solutions are provided by software vendors, exchange solutions are most likely to provide comprehensive solutions. Firms looking for more specific trade reporting solutions will typically not find them at exchanges (Figure 16). The capability to reconstruct trades is a crucial new requirement of MiFID II that many clients will be seeking to build into existing systems (Table 2 and Figure 19).

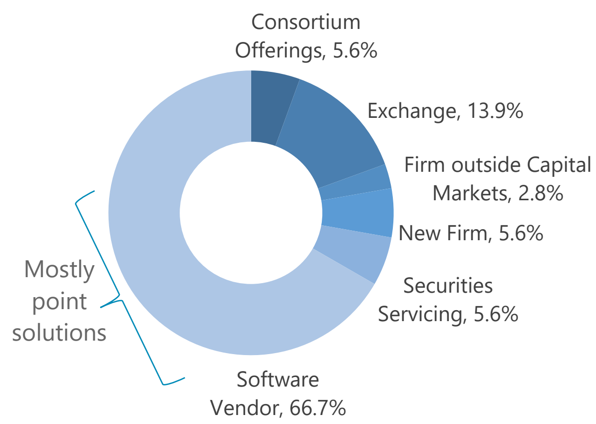
Deutsche Börse, Bloomberg, ICE, Nasdaq, LSEG, and TRAX are offering their trade reporting solutions to banks, asset managers, and exchanges (Figure 15).

FIGURE 15. DEPTH OF MIFID II TRADE REPORTING SOLUTIONS



Source: Companies, Opimas Analysis

FIGURE 16. ORIGINS OF TRADE REPORTING SOLUTIONS

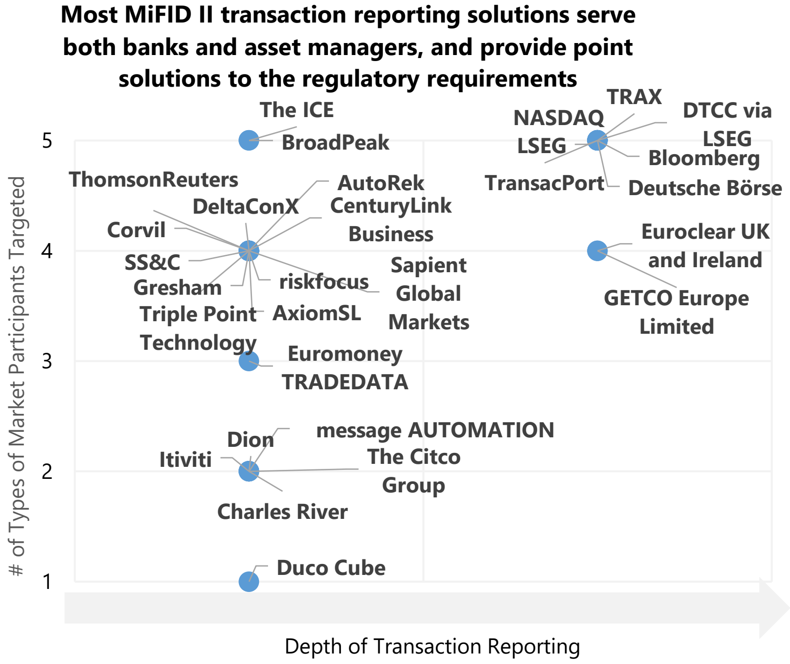


Source: Opimas Analysis

TRANSACTION REPORTING SOLUTIONS

There are currently eight organizations recognized as Approved Reporting Mechanisms (ARMs), the MiFID II equivalent of trade repositories. Each of the transaction reporting consortium offerings (Table 2) includes a partnership with London Stock Exchange Group's UnaVista ARM, including DTCC. The remaining transaction reporting solutions have not indicated plans to become ARMs. Instead, they gather and submit all transaction data in the required T+1 timeframe to an ARM.

FIGURE 17. DEPTH OF MIFID II TRANSACTION REPORTING SOLUTIONS



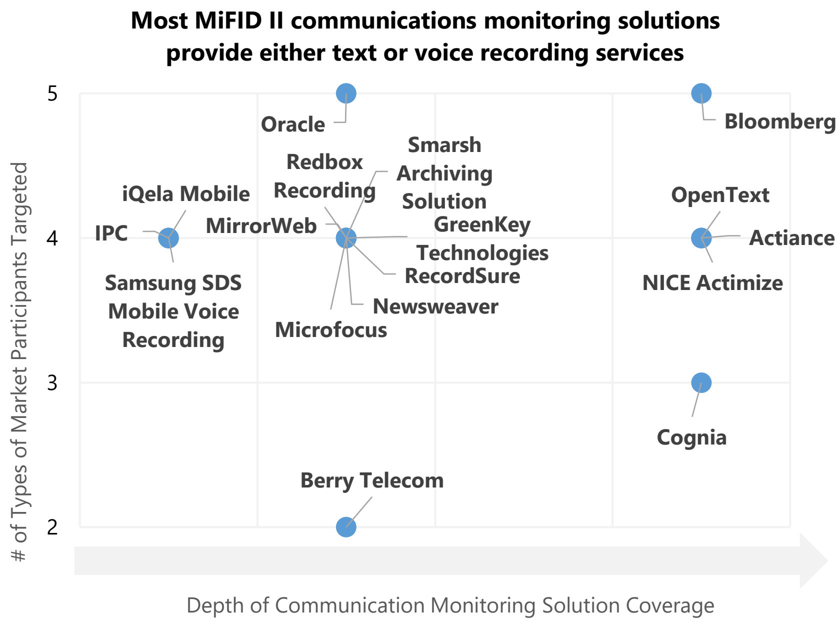
Source: Companies, Opimas Analysis

COMMUNICATIONS MONITORING SOLUTIONS

Unlike trade and transaction reporting, communications monitoring solutions are mostly provided by firms who are not typically focused on capital markets. Exceptions include Bloomberg and NICE Actimize. Several vendors offer either text or voice archiving (Table 2), which will not be sufficient for firms implementing these surveillance structures for the first time. For a firm augmenting an existing set-up, however, a targeted solution could be a better fit.

Communications monitoring solutions targeting tier 2 & 3 banks currently find themselves in a relatively less competitive bid for the €420 million initial spend, and €130 million annual maintenance spend.

FIGURE 18. DEPTH OF MIFID II COMMUNICATIONS MONITORING SOLUTIONS



Source: Companies, Opimas Analysis

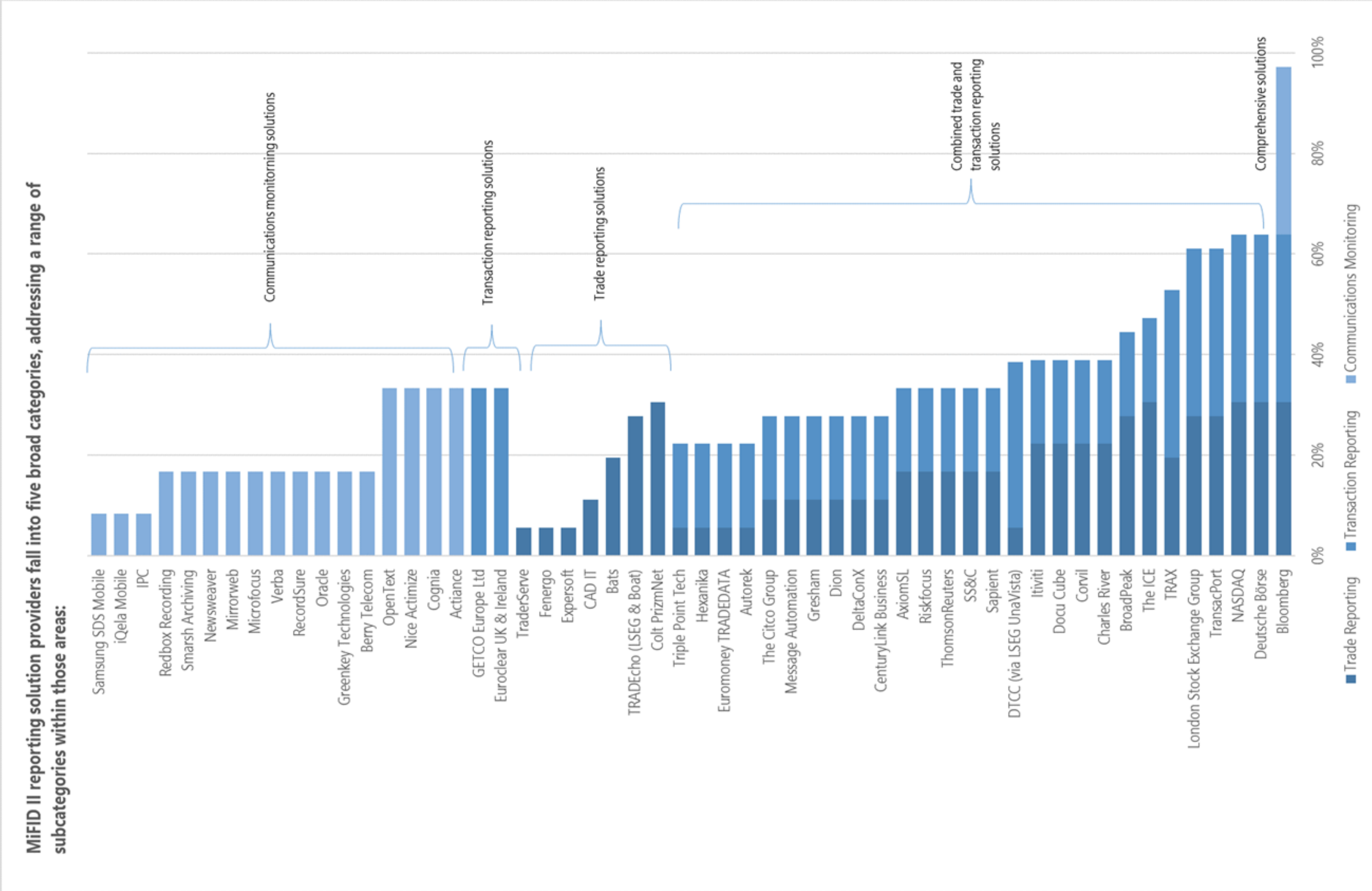
END-TO-END MIFID II SOLUTIONS

Most MiFID II solutions focus on communications monitoring, either trade or transaction reporting, or both trade and transaction reporting. It is rare for solutions to cover all three areas simultaneously. Figure 19 below details the depth of MiFID II solutions' coverage within trade reporting, transaction reporting, trade & transaction reporting, and communications monitoring.

The percentage below do not represent an evaluation of the providers' solutions, but only reflects the existence of an offering in the following subcategories of MiFID II requirements:

1. Trade reporting
   - Client/venue categorization
   - Trade data archiving
   - APA status
   - Preparing data for an APA
   - Real-time risk alerts
   - Trade reconstruction
2. Transaction reporting
   - ARM status
   - Prepare Data for submission to ARM
3. Communication Monitoring
   - Text
   - Voice
   - Real time risk alerts
   - Trade related communication reconstruction.

FIGURE 19. RANGE OF OFFERINGS OF SOLUTION PROVIDERS



Source: Opimas Analysis

CONCLUSION

With one short year remaining before MiFID II goes live, the clock is ticking for market participants to prepare for a €2.5 million spend. Before January 2018, market participants must thoroughly understand the revised regulatory categories, budget appropriately, and identify which external solution providers are best equipped to meet their needs.

Where costs of new regulations are prohibitive to the viability of a line of business, we have already seen some participants proactively acclimatize. This is especially apparent regarding MiFID II's dark pool caps and the Large in Scale waiver. LSEG, Bats Europe, and Deutsche Börse have already introduced new services that take advantage of this new environment.

Solution providers must also strategically consider which MiFID II participants and regulatory categories offer attractive spends, and be aware of steep competition in areas like trade reporting. We recommend that capital markets solution providers consider the trade communications monitoring needs of tier 2 & 3 banks, as this is currently the least competitive MiFID II market.

We recommend that capital markets solution providers consider the trade communications monitoring needs of tier 2 & 3 banks, as this is currently the least competitive MiFID II market.

The small group of vendors currently fighting for this market mostly stem from outside of capital markets. They are facing €420 million on initial spend and over €130 million from annual maintenance. This is an opportunity for an acquisition that capital markets solution providers serving other MiFID II areas should not ignore.

APPENDIX

TABLE 2. MIFID II SOLUTION COVERAGE

Source: Opimas Analysis

● *serving this space*

○ *applying for APA status*

◘ *ARM access via consortium offering*

	Trade Reporting						Transaction Reporting		Communications Monitoring			
	Client/venue categorization	Trade data archiving	APA status	Prepares data for an APA	Real-time risk alerts	Trade reconstruction	ARM status	Prepare data for submission to ARM	Text archiving	Voice archiving	Real-time risk alerts	Trade-related communication reconstruction
Comprehensive Solutions												
Bloomberg	●	●	○	●	●	●	●	●	●	●	●	●
Combined Trade and Transaction Reporting Solutions												
Deutsche Börse	●	●	○	●	●	●	●	●				
Nasdaq	●	●	○	●	●	●	●	●				
The ICE	●	●	○	●	●	●		●				
TransacPort	●	●		●	●	●	●	●				
BroadPeak	●	●		●	●	●		●				
London Stock Exchange Group		●	○	●	●	●	●	●				
TRAX	●	●	○	●			●	●				
Charles River	●	●		●		●		●				
Corvil		●		●	●	●		●				
Docu Cube	●	●		●		●		●				
Itiviti		●		●	●	●		●				
Sapient	●	●		●				●				
SS&C	●	●		●				●				
ThomsonReuters	●	●		●				●				

Source: Opimas Analysis

● *serving this space*

○ *applying for APA status*

◘ *ARM access via consortium offering*

	Trade Reporting						Transaction Reporting		Communications Monitoring			
	Client/venue categorization	Trade data archiving	APA status	Prepares data for an APA	Real-time risk alerts	Trade reconstruction	ARM status	Prepare data for submission to ARM	Text archiving	Voice archiving	Real-time risk alerts	Trade-related communication reconstruction
Riskfocus	●			●		●		●				
AxiomSL				●	●	●		●				
CenturyLink Business		●		●				●				
DeltaConX				●		●		●				
Dion	●	●						●				
Gresham	●			●				●				
Message Automation	●			●				●				
The Citco Group		●		●				●				
Autorek	●							●				
DTCC (via LSEG UnaVista)		●					◘	●				
Euromoney TRADEDATA	●							●				
Hexanika				●				●				
Triple Point Tech				●				●				
Trade Reporting Solutions												
Colt PrizmNet	●	●	○	●	●	●						
TRADEcho (LSEG & Boat, a Cinnober subsidiary)		●	○	●	●	●						
Bats	●	●	○	●								
CAD IT					●	●						
Expersoft	●											
Fenergo	●											
TraderServe	●											

Source: Opimas Analysis

● *serving this space*

○ *applying for APA status*

◘ *ARM access via consortium offering*

	Trade Reporting						Transaction Reporting		Communications Monitoring			
	Client/venue categorization	Trade data archiving	APA status	Prepares data for an APA	Real-time risk alerts	Trade reconstruction	ARM status	Prepare data for submission to ARM	Text archiving	Voice archiving	Real-time risk alerts	Trade-related communication reconstruction
Transaction Reporting Solutions												
Euroclear UK & Ireland							●	●				
GETCO Europe Ltd							●	●				
Communications Monitoring Solutions												
Actiance									●	●	●	●
Cognia									●	●	●	●
Nice Actimize									●	●	●	●
OpenText									●	●	●	●
Berry Telecom										●		●
Greenkey Technologies										●		●
Oracle										●		●
RecordSure										●		●
Verba										●		●
Microfocus									●			●
Mirrorweb									●			●
Newsweaver									●			●
Smarsh Archiving									●			●
Redbox Recording										●	●	
IPC										●		
iQela Mobile										●		
Samsung SDS Mobile										●		

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About the Report's Author

Anna Griem is a capital markets analyst at Opimas LLC. Prior to joining Opimas, she helped financial institutions and solution providers stay ahead of market trends and manage their key business and technology issues as an account manager at Celent. She also worked at UpperEdge, an IT sourcing and commercial advisory firm focused on negotiation, program management, and the complete sourcing lifecycle. She was also a parliamentary researcher at the House of Commons in London. She received her BA in political science from the University of Vermont and speaks English and German fluently.

About Opimas

Opimas is a management consultancy focused on capital markets, serving leading financial institutions around the world. Our specialisation allows us to bring our expertise to bear from the very beginning of projects, to provide insight and craft strategies for our clients more quickly, without sacrificing quality. In addition, Opimas continuously invests considerable resources, representing about one third of our revenues, in market research. This investment allows us to create a pool of intellectual capital on issues of strategic importance to our clients.

Uniquely in the consulting industry, Opimas pursues an entirely open approach to knowledge sharing, providing our clients direct access to our entire pool of intellectual capital. This gives our clients the latitude either to support their strategic decisions independently, while relying on our knowledge base, or to engage directly with our consultants on a project basis.