

Meeting the MiFID Challenge

A Hatstand White Paper

"We believe for those prepared to adapt and to make the necessary preparations, the opportunities in this new landscape of open and competitive marketplaces will be enormous."

*Charlie McCreevy
European Commissioner for
Internal Market & Services*

Table of Contents

EXECUTIVE SUMMARY	3
BACKGROUND	3
WHAT IS MIFID?	4
SCOPE OF REGULATION	5
TIMETABLE FOR ACTION	7
IMPACT ON BUSINESS AND TECHNICAL INFRASTRUCTURES	7
BUSINESS AND OPERATIONAL IMPACT	8
TECHNICAL IMPLICATIONS	9
HOW HATSTAND CAN HELP	11
PROGRAM FRAMEWORK FOR MIFID IMPLEMENTATION.....	12
CONCLUSION	13
ABOUT HATSTAND	14
WHY HATSTAND?	14

Executive Summary

This white paper highlights the main issues associated with the new regulations affecting the European securities markets. The scope of change is the most far-reaching since Y2K. Specifically, we will discuss the impact on business and operations, the technical implications and the variety of solutions that Hatstand can provide to assist businesses to cope with the new demands. We believe MiFID represents an opportunity to streamline processes and deploy high performance systems that deliver competitive edge. MiFID has far reaching implications for most businesses in the financial services industry and needs to be well understood in order to make gains prior to the implementation deadline.

The following headlines will be expanded in the body of the paper:

- A much wider range of products will be covered by the legislation – all instruments will be affected to some extent.
- All areas of the business will be affected, including compliance, trading, operations, technology, HR. These areas need to be aligned and communication between them will need to be increased.
- MiFID will revolutionise the European securities market by creating a level playing field for exchanges and Multi-lateral Trading Facilities (MTFs).
- Costs are currently estimated at \$1.2 billion to \$7.2 billion across the EU but will vary significantly from firm to firm.
- Savings are currently estimated at \$1.9 billion but will vary significantly from firm to firm.

The current “go-live” date of 1 November 2007 is unlikely to slip, so it is important for firms to ensure they are fully compliant at that time in order to remain competitive and avoid unnecessary regulatory issues.

Businesses should start planning now, by raising awareness, putting program management frameworks in place and formulating a strategy for implementation.

Background

Approximately six years ago, European leaders committed to transform the EU into “the most dynamic and competitive knowledge-based economy in the world capable of sustainable economic growth” by 2010. They desired to set the standard against which other market economies are measured. The European Parliament and its Council of Ministers delegated much of the work involved in delivering this plan to the European Commission, who in turn tasked the Committee of European Securities Regulators (CESR) with producing the necessary regulations and directives. These will ultimately be implemented by the regulators in each of the EU member states.

The Financial Services Action Plan (FSAP) was initiated with a view to creating an integrated market and was endorsed by the European Council in Lisbon in March 2000. The FSAP sets the overall direction and is effectively a framework for a host of other legislation. Some of this legislation pre-dates FSAP, including the original Investment Services Directive (ISD).

The ISD defined “home” and “host” state regulators, establishing the conditions under which authorised investment firms and banks could provide specified services in other EU member states on the basis of home country authorisation. This framework of mutual recognition by national authorities enabled authorised firms to “passport” into the then 11 other EU countries without re-authorisation. This created, in effect, a single “passport” for trading institutions across EU member states.

What is MiFID?

The Markets in Financial Instruments Directive (MiFID) is likely to be one of the greatest legislative changes seen in Europe's securities markets in over two decades. It introduces a single European securities market for all financial instruments and is deemed to be “market opening” as it removes historic practices in some parts of Europe that obliged all trades to be carried out on a recognised Exchange.

For many, the costs of change will have to be met over the next two years, but tangible benefits are likely to be several more years away.

MiFID's main objective is to establish common rules and definitions and to prevent countries putting in place expensive artificial barriers to cross border trading.

Objectives:

- Allow European retail customers to have access to a wider range of cost effective services and financial products.
- Give firms the opportunity to access markets in other member states within a common framework and to carry out cross border business effectively and on a level competitive playing field.
- Reduce the costs of conducting cross border financial services business within Europe.
- Improve the accessibility of capital and enhance the allocation of capital across the whole of the European Union.

Key developments that MiFID introduces over ISD:

- A wider range of Financial Instruments (for example, including both financial and commodity derivatives).
- A wider range of investment services including the provision of advice.
- Alternative trading mechanisms and venues and Multilateral Trading Facilities (MTF).

Scope of Regulation

MiFID expands the definitions of financial instruments to include other frequently traded instruments, such as contracts for difference (CFDs) and other types of derivatives like credit, commodity, weather and freight. It will broaden the scope of investment services requiring authorisation by member states under the existing ISD, and will clarify and expand the range of financial instruments that may be traded between investment firms.

MiFID addresses best execution, client agreements¹, client assets², client classification³, compliance, conflicts of interest, derivatives (both on- and off-exchange), execution-only services, information disclosure, internal systems, outsourcing, pre- and post-trade transparency and record-keeping. The scope of MiFID is so broad that the task facing regulated firms in implementing this directive will be considerable.

In general, MiFID will cover most if not all firms currently subject to the ISD, plus some that are not, including:

- Investment banks
- Portfolio managers
- Stockbrokers and broker dealers
- Corporate finance firms
- A number of futures and options firms
- Some commodities firms

The types of organisation likely to fall outside the scope of MiFID (but will nevertheless be affected to varying degrees) will include:

- Operators of collective investment schemes, such as hedge funds and private equity funds
- Occupational pension scheme firms
- Life assurance companies and friendly societies
- Financial advisers who *do not* hold client assets
- Authorised professional firms

¹ Article 19 (7) of MFID requires firms to maintain a record of the document between the investment firm and the client, which sets out the rights and obligations of the parties and other relevant terms.

² The investment firm must take steps to protect the financial instruments and funds so that the client retains its property or money if the firm makes an operational mistake, or commits a breach of its obligations, and even if the firm becomes insolvent.

³The current categories (private, intermediate and market counterparty) will be replaced with the similar but not identical MiFID classifications – Retail Client, Professional Client, Eligible Counterparty.

All instruments will be affected to some degree. All instruments will be affected by best execution and end of concentration rules. Only equities will be affected by client order handling rules, firm public quotes requirement, pre- and post-trade transparency.

The key provisions of MiFID are as follows:

BEST EXECUTION (Article 21)

MiFID states that firms must take all steps to obtain the best execution for clients, however it does not provide a clear definition of best execution. It states that "*Investment firms must take all reasonable steps to obtain... the best possible result for their clients taking into account price, costs, speed, likelihood of execution and settlement, size, nature or any other consideration relevant*" (italics ours). Firms will be obliged to publish their execution policy.

CLIENT ORDER HANDLING (Article 22)

This rule requires firms to execute client orders as quickly as possible, and to publish orders that cannot be filled immediately.

FIRM PUBLIC QUOTES (Article 27)

One of the most onerous requirements in the set of regulations, this rule requires Systematic Internalisers to publish prices at which they would internalise quotes. The quotes must be firm at the Standard Market Size and any resulting executions cannot deviate in price. Firms in the UK will be most affected by this requirement as a high number of organizations internalize their quotes.

POST-TRADE DISCLOSURE (Article 28)

All firms must report off-exchange trades. This is not a new requirement, but under MiFID firms are not obligated to publish to a regulated exchange; they may choose any venue they wish. This will bring a number of business opportunities for firms to sell market data rather than paying for the privilege of publishing it on a listed exchange.

PASSPORTING (Articles 31, 32, 33, 34)

MiFID improves and simplifies the operation of the single passport for investment activity and clarifies where the regulatory oversight responsibilities lie for cross-border services provided by branches in other member states. Firms will be able to establish branches in other member states and offer cross-border services under the regulation of the host country.

END OF CONCENTRATION RULES (Article 69)

The end of concentration rules will create a level playing field between regulated exchanges and non-exchange venues as firms will no longer be required to route order directly to exchanges. They can, in effect be routed to the venue of choice.

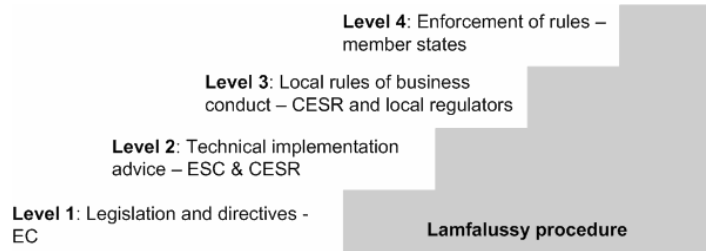
CLIENT CLASSIFICATION (Article 24 and Annex II)

MiFID establishes a common EU framework for classifying counterparties between professional clients, market counterparties and retail clients with substantial systems implications.

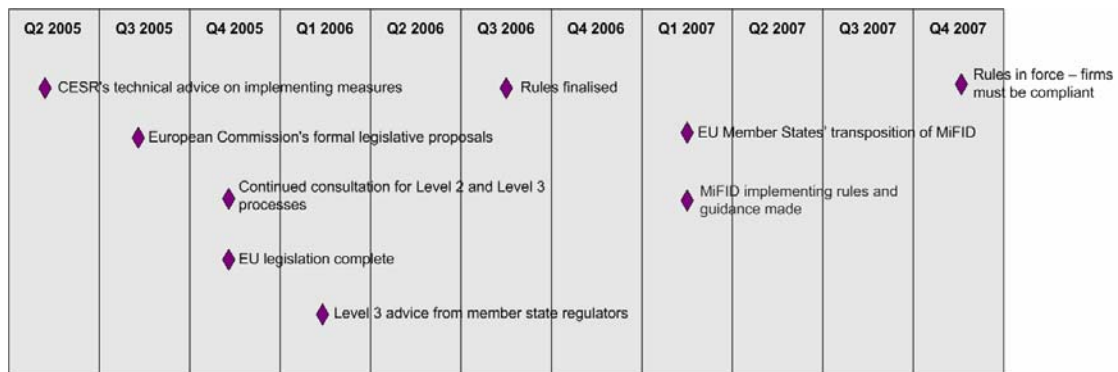
Timetable for Action

MiFID will be implemented using the Lamfalussy Procedure.

In July 2000 the French presidency of the European Commission initiated the appointment of a Committee of Wise Men chaired by Alexandre Lamfalussy. The committee was tasked with drafting proposals for improving the effectiveness of the EU's securities market regulatory process. In February 2001, a report produced by the Wise Men proposed a new four-level legislative process, where significant powers are delegated to implementing committees.



The FSA plans to issue a number of consultation papers on MiFID implementation in March 2006, with a second consultation on specific aspects due in the latter half of 2006. Member states must achieve Level 3 by 1 January 2007 and investment firms must be compliant by 1 November 2007.



Impact on Business and Technical Infrastructures

MiFID has 73 articles with which to understand, comply and implement systems and controls. It requires properly documented processes for organisational structures, controls, business continuity plans and reporting lines, and these documents must be available to relevant interested parties.

Each organisation will need to assess for itself what the likely impact of implementing and maintaining compliance with MiFID will be on their business.

This section shows some of the possible effects and necessary considerations that operational and IT heads will need to take into account during the planning process.

Business and Operational Impact

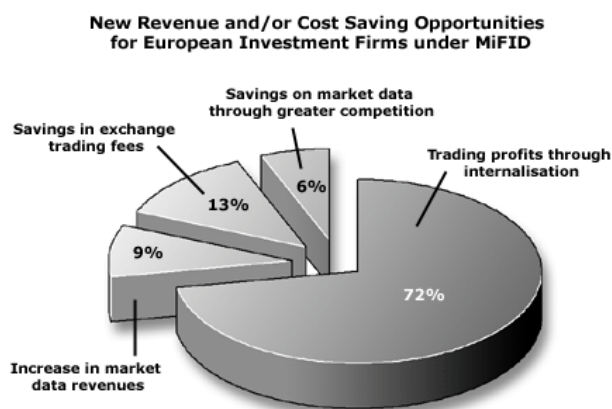
Expected Costs

Analysts' estimates put the total IT price tag of compliance with MiFID at anywhere between €1 billion (\$1.2 billion) and €6 billion (\$7.2 billion) across the EU4. Only a very few banks are planning for MiFID by introducing the necessary flexible and service oriented architectures. According to current estimates, the CIOs of investment banks could face a bill of \$23m each4.

A typical broker-dealer classified as an internaliser may need to spend at least \$22 million to comply with MiFID, with half of that spending on technologies including: algorithmic trading; workflow; business process outsourcing; market connectivity; FIX Protocol; service-oriented architectures; and data warehousing.

Potential Savings

The total annual savings and revenue increase for investment firms due to MiFID may be as much as €1.6 billion (\$1.9 billion). Trading profits through internalisation will count for 72 percent of such benefits, predict analysts, who report that "within two to three years about 30 percent of order flow in continental Europe will be internalised."



Total annual revenues/savings: C 1.6 billion

Operations

There will be a step-change in the workflow and data-handling for firms wishing to continue to do business in the EU 25 member states. Organisations will need to establish separate and independent compliance and investment research functions. "Passporting" activities will increase as newly regulated areas decide which countries to conduct business in. Areas that have been covered by the regulations for some time will need to assess whether the new passporting provisions introduced by MiFID will bring increased pan-European business opportunities.

Sales processes and order handling policies will need to be updated and enhanced in line with the new regulations together with new control processes for monitoring best execution policies. Note that organisations are not obligated to prove that the best execution has been achieved, only that the best execution policy has been rigorously pursued. Also, new methods and processes will be required to distribute pre-trade data.

Trading

Organisations will need to determine whether to become a Systematic Internaliser and new or existing Systematic Internalisers will need to develop new, or enhance existing processes, for publishing firm quote data. Front Office Operations senior management will need to determine channels and methods for distributing limit order information.

⁴ It must be stressed here that this figure will differ across the spectrum of affected firms, as each firm will need to evaluate the cost of compliance on an individual basis.

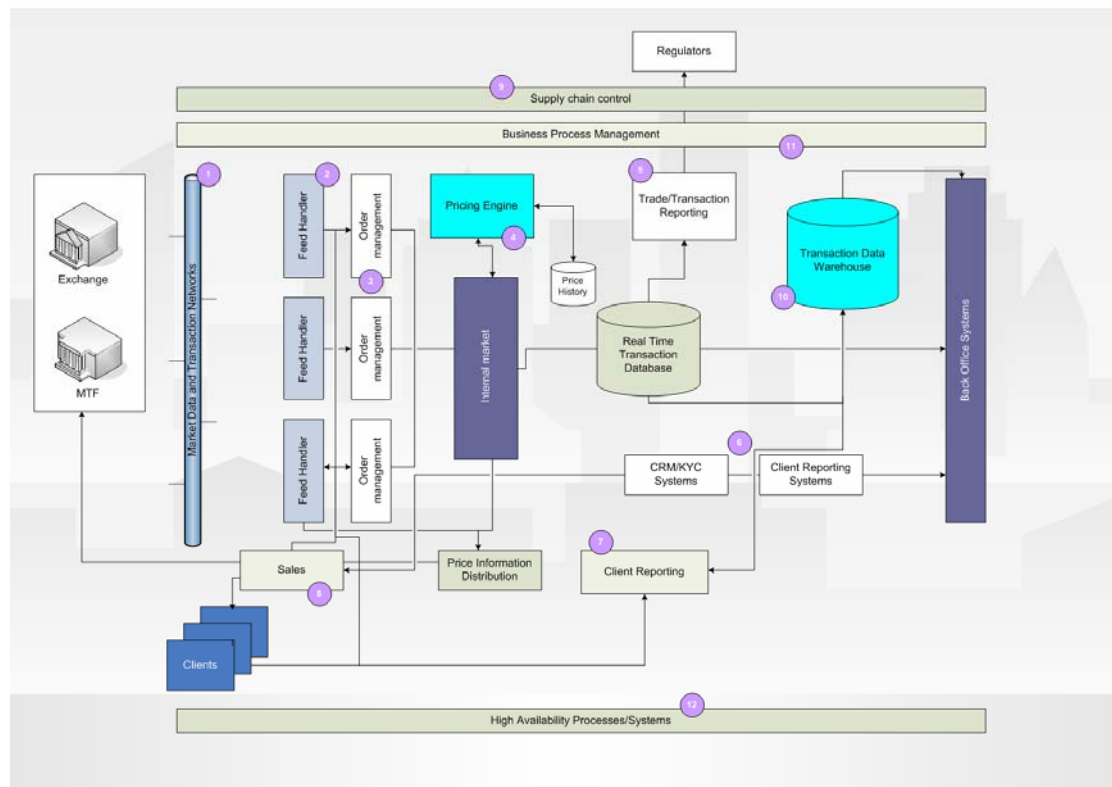
There will be an expanded range and volume of financial market and reference data published across the EU 25 member states, potentially by anything up to a factor of three to four times, in terms of transaction volumes and information transfers.

Technical Implications

New Year, New Mindset

A change in attitude towards the Financial Services IT industry and the rest of the business is vital as the Directive leaves “zero margin for error”. IT will need to be seen as business peers, not just auxiliary service providers. IT leaders will need to drop the notion that others are going to mitigate their personal risk by telling them what to do. They will engage directly with the regulatory agenda and work collaboratively with the business units and the back office.

Successful European IT leaders of 2010 will have the opportunity to take responsibility for organisational changes and heavily influence the way their firms conduct business and grow revenue. Areas that will demand careful inspection over the next 18 months are illustrated and explained below:



Network Capacity

Networks will need to be fast, reliable and robust with capacity for increased demand as the volume of market and transaction data carried on the network increases.

Market Adapters

Market adapter performance will be one of the main areas of technical innovation with increased competition among SIs to distribute market, transaction and quote data. The complexity of market adapters will increase significantly as they will need to send/ receive messages to and from multiple sources. ISVs, such as GL Trade, will need to prove that their

solutions do not introduce additional latency. Firms will need to decide whether to connect directly to markets and MTFs or create bespoke connections.

Order Management/Order Routing

Major changes will be required to fulfil the best execution requirements. Order matching and algorithmic trading systems will need to have increased intelligence and processing power to handle increased volume of transactions and execution venues.

Internal Market and Pricing Engines

SIs will need to enhance or create “smart” trading engines to link the various parts of the business (such as retail brokerage, asset management, wealth management, etc) to enable them to “see” the firm’s internal order flow and compare this to client orders. Complex compliance logic will need to be built-in to ensure that certain client orders can only be matched with other appropriate client orders, and orders which are not matched internally are not delayed in being disseminated to other execution venues.

Transaction History

Firms must maintain a 5 year history of all customer trades and their own quotes and be able to prove that the executed orders complied with the firm’s order execution policy and that best execution requirements were fulfilled. Enhanced data storage facilities will be required, which are currently difficult to obtain as data centre capacity becomes increasingly scarce.

CRM Systems

KYC controls and processes will need to comply with the new requirement. New customer-related fields and some new work-flow practices will be required to comply with Conduct of Business requirements.

Client Reporting

Client reporting will need to be increasingly transparent and complete and firms must ensure timely reporting to comply with the T+1 confirmation rule. Client communication will need to be tracked within CRM applications and new client classifications will need to be incorporated within client reports.

Sales Process

MiFID requires increased transparency surrounding the sales process and introduces additional internal rules. Additional automation around the sales process will help ensure quality and that order handling procedures are followed.

Databases

Businesses will experience an increased demand for Extremely Large Databases to hold much larger volumes of market and transaction data. Increased database performance will be required to deliver fast retrieval for real-time online transaction processing.

Business Process Management

Strengthened links between various business areas, such as: compliance, trading, operations, technology, HR, whilst continuing to avoid conflicts of interest will require new and updated business processes. Firms can leverage legislative changes as a means of reducing areas of redundancy and duplication of effort.

High Availability and Disaster Recovery

Firms will need to implement new or enhanced processes to ensure High Availability and resilience of controls and systems that support all areas of the business. New and updated systems and processes will be required for managing Disaster Recovery.

How Hatstand Can Help

Hatstand has considerable experience with developing and implementing electronic trading systems. We feel that we are best placed to advise our clients regarding MiFID changes and manage implementation programs to deliver those changes with minimal impact to normal business operations. Our approach to MiFID can be grouped into four key stages:

Stage 1: MiFID Gap and Impact Analysis

Hatstand will conduct a top-down analysis of current systems and processes to assess shortfalls in compliance with MiFID requirements and determine the impact on individual systems. The Hatstand team will also use well proven Business Process Re-engineering techniques to formulate new processes that meet with the MiFID requirements, reduce redundancy and duplication of effort in workflows and processes, reduce conflict of interest, and achieve best competitive edge.

As part of this process, Hatstand will also consider all Business Continuity Planning implications and propose an effective approach to planning for disaster recovery.

Stage 2: System Selection and Implementation

Hatstand has a wide range of expert skills and experience to determine appropriate products and solutions to deliver competitive edge and comply with MiFID regulatory requirements. The Stage 2 process will evaluate products and independent software vendors to identify the best solutions to meet the critical requirements established in Stage 1.

Hatstand also has considerable in-house talent to develop bespoke solutions or enhance existing systems. Our team can develop design architectures that consolidate prime brokerage, algorithmic trading and securities lending/collateral management into a common automated platform. We can also assist in building the following solutions for our clients:

- fast data feed handlers capable of handling the highest ever transaction volumes;
- compliant order management systems containing venue identification and process logic;
- smart trading engines;
- updated market data infrastructures to handle additional non-exchange venues, increased volumes, and market identification;
- enhanced CRM and client reporting systems;
- sales process automation.

Hatstand will employ its proven program management methodology to manage the integration of system solutions and, if necessary, design and implement new IT infrastructure to support rapidly growing transaction volumes and MiFID requirements for data retention and reconstitution.

Stage 3: Testing and Compliance Certification

A critical stage in the MiFID compliance program is to thoroughly test and document all system changes and ensure that systems deliver their quality criteria requirements. The Hatstand team will develop test plans for performance and regression testing, and schedule formal tests with external partners, such as exchanges, data publishers, and other trading partners.

The culmination of this stage is a thorough audit of processes and systems to ensure that all changes meet with the MiFID requirements and continue to deliver business advantage.

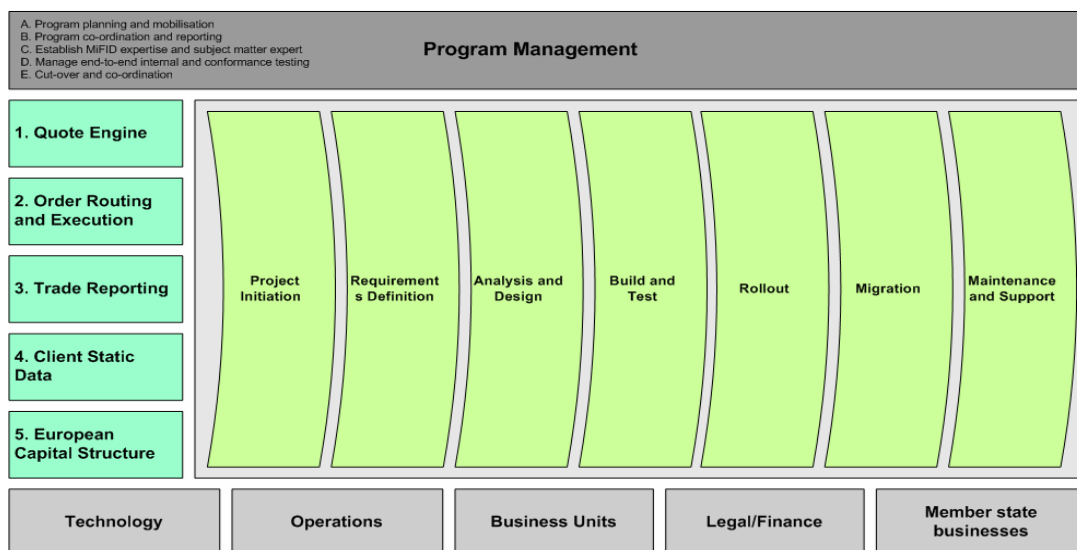
Stage 4: Training and Support

Hatstand will arrange comprehensive training programs for all users and system managers to support the rollout of MiFID changes to all business units.

Hatstand currently provides comprehensive support services to its clients and, if required, will take full responsibility for supporting new or enhanced systems following implementation. In addition, Hatstand can provide support for Business As Usual during the MiFID program.

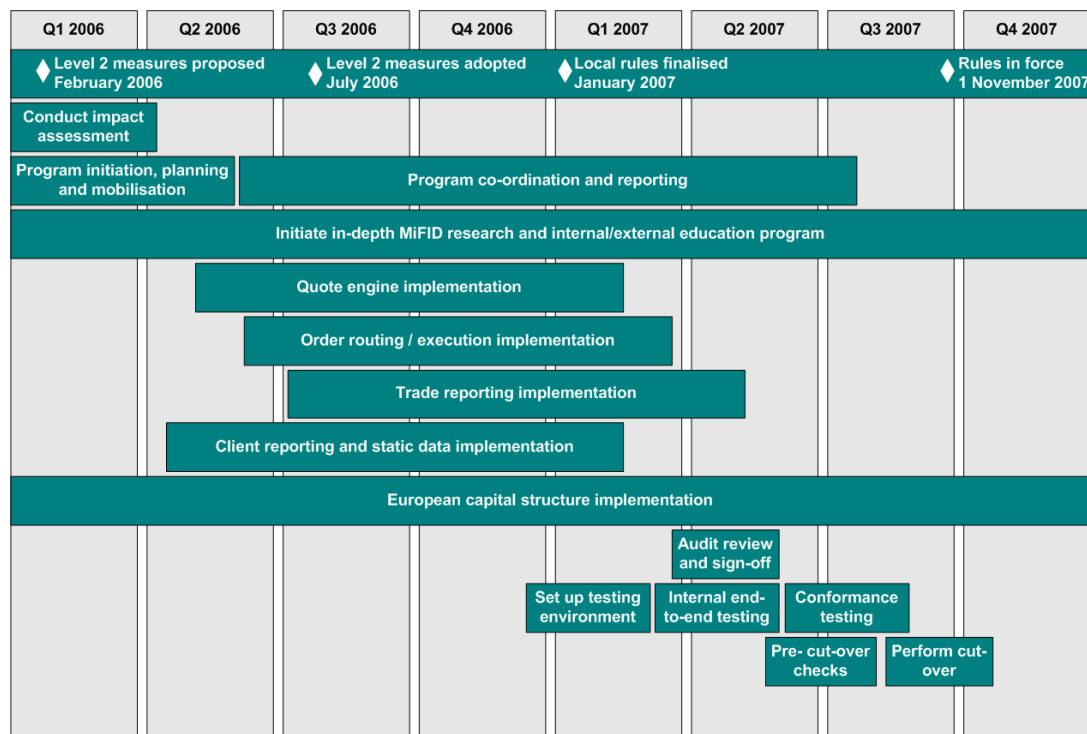
Program Framework for MiFID Implementation

Implementing a MiFID compliance program need not be as onerous a task as it might first appear. The impact can be significantly reduced by aligning the mandatory changes with existing change programs and clustering the regulatory requirements and market opportunities into functional groups.



The final organisation of the work streams may vary in different organisations, but is likely to include the five critical work-streams illustrated in the diagram above.

These work-streams can then be integrated into a timeline that includes the various stages of MiFID implementation:



Conclusion

MiFID represents a significant business opportunity for organisations that act quickly to establish new markets and business relationships. The date of implementation is currently November 2007. This is not forecasted to slip, having slipped twice already, so it is vital for businesses to act immediately.

Businesses need to assess the increased business opportunities that will result from the regulatory changes, rather than viewing them with fear and suspicion. A broad program of education and preparation is the first move towards achieving this.

MiFID is part of a collection of regulatory changes instigated by the Financial Services Action Plan and are aimed at creating a more competitive market environment with greater liquidity and better investor protection. It represents an opportunity for firms to consider how they wish to conduct business across Europe in the future and offers a chance to create an integrated, highly efficient business model to deliver maximum business advantage.

Hatstand is offering its experience and well-developed skill base to help its clients realise their business aspirations and create advantage from the regulatory change rather than stress and increased burden.

About Hatstand

Companies from the smallest hedge fund to customers including Merrill Lynch, Morgan Stanley, Deutsche Bank and UBS have come to Hatstand for two main reasons. First, our exclusive focus on the financial sector and no other industry. Second, the extreme care we have taken to build a talented pool of senior professionals with not only solid **technical skills** but with direct experience of the broader **IT function** and a sound understanding of the client's **business**. We call this **three-dimensional expertise our 3D-IT** – encompassing IT skill, IT function and business knowledge – which all our consultants share and which other IT-consultancies fail to match.

Hatstand began with a specific focus on the electronic trading environment and has subsequently extended its consultancy to wider financial services IT, encompassing project management, service management and the provision of temporary or permanent IT resource.

Why Hatstand?

Each consultant combines technical skill with business and market knowledge, to deliver improved performance and reduced risk in the following areas:

- We exclusively specialise in financial services technology, including a particular strength within electronic trading.
- We deploy only senior, well-qualified financial IT consultants with genuine experience in a given specialisation.
- We provide expertise at lower price points than our large, cost-heavy competitors.
- We understand latest best practice in areas such as credit derivatives, exchange connectivity and direct market access, and we offer this knowledge to clients at the least possible risk to them.

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