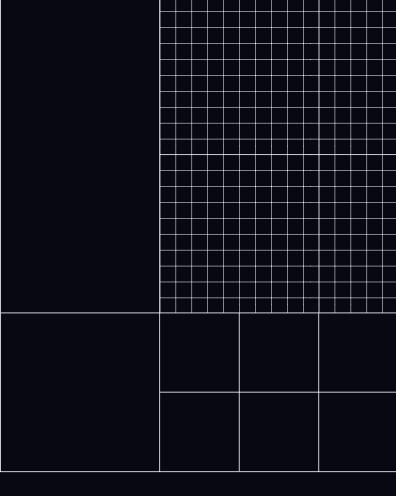
## Bloomberg MiFID II solutions guide.



# MiFID II: Welcome to the new regime.

A full calendar year is a long time – or is it?

On 3 January 2018, Europe will see the update to the Markets in Financial Instrument Directive (MiFID II) and the accompanying Regulation (MiFIR) come into force. Focusing on core principles of the creation of fairer, safer and more efficient markets, this arguably is the broadest piece of financial industry legislation ever and has the potential to significantly change market structures. Now is the time to be selecting and integrating systematic solutions to prepare for this vast regulatory change.

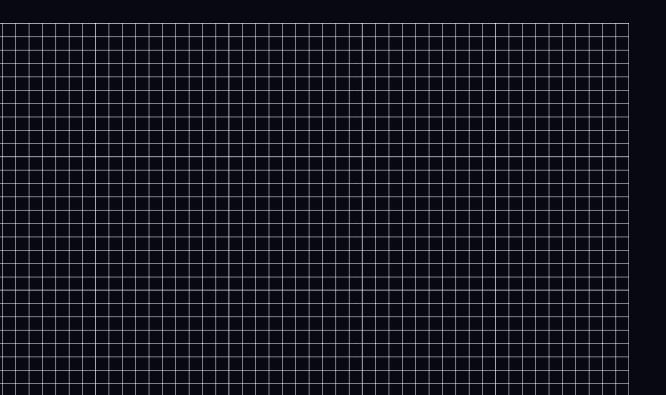
MiFID II will call for a degree of transparency that is unprecedented – particularly for buy side firms. Whereas MiFID applied solely to equity markets, MiFID II extends the core principles into "non-equity products," such as cash and derivative products in fixed income, FX and commodities. For the first time, products like bonds and derivatives that trade over-the-counter will be subject to certain reporting requirements to create price transparency and supervisory oversight. New 'on venue' trading obligations will be introduced for certain products, but the obligation of trading venues to report on behalf of participants may see more products also move 'on venue.' The buy side will be forced to purchase FICC research products and ensure they are not being induced, similar to the unbundling of equity markets.

The bottom line: successfully navigating this complex new regulatory landscape will take a trusted partner who knows the lay of the land. Who you choose now and how you bring solutions online in the months ahead will go a long way to determine your success come January 2018.

In these pages we outline Bloomberg's MiFID II offering and the deep regulatory and compliance expertise behind it. Bloomberg offers solutions across the entire MIFID II spectrum, and these capabilities are seamlessly integrated with Bloomberg's order management systems **TOMS**, **SSEOMS** and **AIM**. You can also visit **MIFI<GO>** on the Terminal to receive the latest updates on the regulation roll out and Bloomberg's MiFID II solutions.

With over 30 years of experience providing news, data, analytics, trading and compliance solutions to the capital markets, Bloomberg is uniquely positioned as the trusted partner who can help you stay one step ahead of every curve. We look forward to working together to ensure your firm's success.

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# MiFID II background.

#### What is MiFID II?

The updated MiFID II (the Markets in Financial Instruments Directive) and MiFIR (the accompanying regulation) represent the largest change to European financial regulation in recent years. In 2007, the Markets in Financial Instruments Directive (MiFID) came into force focusing on the operation of European equity markets. Its objective was to increase integration and efficiency of markets through the establishment of a harmonised regulatory framework across the European Union (EU). In 2010, the European Commission (EC) started a process to review and update MiFID seeking to increase market stability and confidence whilst also bolstering consumer protections.

#### What are the key objectives?

The key objectives of the updated directive (MiFID II) and the accompanying regulation (MiFIR) are:

- Ensure the fair, effective and safe operation of financial markets
- Address shortcomings in the initial MiFID framework
- Expand the scope of MiFID into non-equity products
- Enforce conduct-of-business rules for financial services intermediaries
- Form Europe's post-crisis response to the 2009 G20 commitment to reform markets

#### Who is affected?

The updated directive applies to a broader range of financial industry players providing investment services including investment banks, portfolio managers, brokers and market makers. Whilst the sell side will have to adopt measures for compliance, obligations also extend to the buy side and intermediaries such as inter-dealer brokers and market makers.

#### What is covered?

The range of asset classes and products within the legislation's scope is broad and includes cash and derivative products in fixed income, FX, equities and commodities.

## MiFID II timeline.

#### MiFID II & MiFIR will apply from 3 January 2018.

Most of the detailed implementing rules developed by the ESMA and the European Commission have been finalised.

Time taken in the legislative process has compressed the period for solution selection, implementation and testing into the coming twelve months, with 2017 being a key implementation year for regulators and market participants.

# June 2014 MiFID II/MiFIR finalised. 2014 2015 2016 2017 Development of implementing rules. Implementation. Level 3 guidance.

#### Important challenges still to be resolved include:

- Further ESMA Level 3 guidance
- Final national rules
- Set-up of reference data systems
- Pre-trade transparency treatment of packaged trades
- Rules on venue trading obligations for OTC derivatives
- Guidance on extra-territorial scope of the rules, e.g., treatment of securities with a dual-listing in the EU
- Equivalence determinations for non-EU jurisdictions



# MiFID II requirements.

Obligations affect all aspects of the trading life cycle including business and product governance, pre-trade, at-trade and post-trade. Many obligations require a more systematic approach to compliance than under previous regulations.

#### Pre- & post-trade transparency

Firms will need to publicly report Actionable Indications of Interest (AIOIs or firm prices) and executed trades. 'Off venue' trades are required to be published through an Approved Publication Arrangement (APA), whereas 'on venue' reporting of prices and trades will be the obligation of that trading venue.

#### **Transaction reporting**

Trades on all financial instruments will need to be reported to the client's National Competent Authority. Reports require 65 fields of economic terms and static data. N.B. All transactions reported will require an LEI (Legal Entity Identifier).

#### **Data & analytics**

Reference data is required as the input to transparency and transaction reporting rules and to populate some of the reportable fields. The new transparency regime will provide new streams of data to be analysed as part of a firm's investment and execution process.

#### Research

MiFID II outlines rules for provision and receipt of investment research that should be unbundled from execution.

#### **Trading venues**

Market participants wishing to execute multilaterally must do so on a trading venue. Certain trades will be subject to both pre-trade and post-trade transparency.

#### **Best execution**

Take all sufficient steps to obtain, when executing orders, the best possible result for their clients – taking into account price, costs, speed, likelihood of execution and settlement, size, nature or any other relevant consideration.

#### Record keeping, trade reconstruction & surveillance

Records shall be kept of all services, activities and transactions undertaken by investment firms to support enforcement actions under MiFID II, MiFIR and MAD/MAR for a minimum of five years. Firms are required to provide transparency into trade life cycle – they must have trades and communications (incl. voice) "readily available" and provided upon client's and regulator's request. Firms are required to increase monitoring of and surveillance on marketing and distribution activities for prohibited or restricted financial instruments.

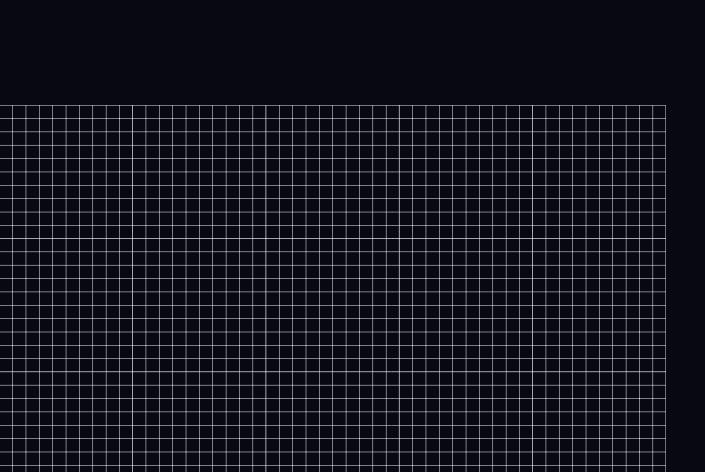
#### **General principles & information to clients**

MiFID II requires firms to plan for client engagement. Forms need to demonstrate that the financial instruments sold are fit for their client's risk appetite and market knowledge, supported by a clean audit trail.

# Bloomberg solutions overview.

MiFID II requirements
Pre-trade transparency
Post-trade transparency
Transaction reporting
Data & analytics
Research
Order management & execution
Trading venues
Best execution
Record keeping
Trade reconstruction
Surveillance
Client outreach

Bloomberg solutions		
Pre-trade workflow	Execution & trading workflow	Post-trade workflow
MiFID II data fields SI calculation analytics		
	Bloomberg APA     Regulatory reporting hub (RHUB)     Bloomberg ARM     Waivers and deferrals engine	MiFID II data fields:
		Bloomberg ARM
Data and analytics	incorporating output from trading venues	and APAs
New research entitlement systems     Consumption record keeping and analytics     Budgeting     Research marketplace     Repapering CSA or RPA contracts		Commission management solutions
Instant Bloomberg messaging tools for pre-trade compliance     Order management system sales trader workflow tools	Bloomberg order management systems TOMS, AIM and SSEOMS	Bloomberg Vault     Blooomberg transaction cost analysis (BTCA)
<ul> <li>Transaction cost analysis</li> <li>Consolidated data aggregating quotes and pricing from all venues: RMs, MTFs, OTFs and APAs</li> <li>Profiler of Execution (PEX) BestEx Analytic via TSOX</li> </ul>	Bloomberg multilateral trade facility (MTF)	Bloomberg transaction cost analysis (BTCA)
Bloomberg order management systems TOMS, AIM and SSEOMS     Bloomberg VAULT		Bloomberg VAULT
Update execution policy Client suitability assessment General principles and information to clients I is issuance		



# Buy-side solutions.

### Pre-trade workflow.

#### Research & idea generation

- Research has the potential to be considered an inducement to trade
- MiFID II requires the unbundling of research from trading commissions
- Research budgeting, evaluation, payment mechanisms and reporting obligations
- MiFID II will require documentation to be shared between firms and a clean audit trail of the agreed CSA and RPA terms

#### **Pre-trade analytics**

- Real-time market data to be provided to public on "reasonable commercial basis"
- Pre-trade liquidity characteristics and trade venue assessment and selection diligence for order routing and execution
- Incorporation of historical best execution metrics and due diligence requirements

#### How Bloomberg can help.

- Granular entitlement systems
- Consumption analytics
- Evaluation and broker vote tools
- Budgeting
- Deep research library and research marketplace
- Bloomberg's Entity Exchange will facilitate repapering

- Real-time, standardised analytics for benchmarks and model selection integrated with the Bloomberg Professional® service
- Dynamic quant models and actionable statistics to provide guidance on trading (Tradebook Strategy Analyzer)
- Systematic, pre-trade, algorithmicallydriven best execution analytic embedded within TSOX (Bloomberg's execution management system)

#### **Price discovery**

- Real-time market data to be provided to public on "reasonable commercial basis"
- Pre-trade liquidity characteristic and trade venue assessment and selection diligence for order routing and execution
- Incorporation of historical best execution metrics and due diligence requirements

#### **Order management**

- New order origination and transmission requirements, including "decision-maker" identification detail captured for record keeping
- UTC clock synchronisation
- Time stamp granularity
- Voice communication tagging and storage

- Historical trade cost analysis for improved decision support and execution strategy
- Bloomberg Multilateral Trade Facility (MTF) integrating pre-trade market data in core Terminal functionality
- Consolidated data aggregating quotes and pricing from all venues: RMs, MTFs, OTFs and APAs
- Unique agency access to ETF liquidity via Tradebook's anonymous RFQ platform

- Fully integrated order management solution (Bloomberg AIM), including pre-trade compliance checks and APA connectivity
- Direct connectivity for AIM and third party OMS clients to PEX (deployed via TSOX) and BTCA for pre-trade best execution metrics and transaction cost analysis checks
- Clock synchronisation and microsecond times stamps to orders, fills, and transactions and other critical events
- IB security pill tools to assist with off-venue "voice" communication
- Voice and communication capture, storage and tagging (Bloomberg VAULT)

# Bloomberg solutions.

#### Client outreach

MiFID II requires firms to plan for client engagement. Any changes to execution policy, research pricing and risk will need to be disclosed with client consent and a clean audit trail. Bloomberg's Entity Exchange delivers a fast, efficient and flexible service to meet this need.

- Facilitates both client onboarding and repapering associated with MiFID II changes in policy via a web-based platform
- Delivers and maintains reference data direct from the source
- Flexible, secure and transparent communication to alleviate the fatigue of multiple requests for information
- Help facilitate the issuance of LEI information

#### Research

Bloomberg is helping the buy side implement solutions on the provision and receipt of investment research stemming from the implications of MiFID II – one of its key objectives being to unbundle research from execution. This means firms that will not be able to accept non-monetary benefits in relation to research and will have to be selective about what services and products are procured. Alongside this, buy-side firms will be expected to manage, monitor and evaluate their consumption, as well as allocate budgeted amounts to providers of research.

Bloomberg's current entitlement platform and reporting provide visibility into the providers and content that you have access to. In addition, we will provide the ability for buy-side administrators to control the entitlement requests for their users to access any new research provider or content that they are not currently subscribed to; provide greater flexibility and granularity to the content that a provider packages for clients; and the mechanism for the buy-side to request bespoke packages of content.

#### Bloomberg solutions include:

- Granular entitlement systems
- Consumption analytics
- Evaluation and broker vote tools
- Research budgeting and commission management
- Deep research library and research marketplace

#### **Data**

Bloomberg will consume and publish the data required as input to the transparency decision making process: liquidity, SI status, trade thresholds. Bloomberg will also consume and create composites and analysis from the price transparency data output by other APAs and trading venues. Both input and output data will be available on the Terminal and via data feeds.

#### **Order management systems**

In order to operate efficiently in this new environment, firms will have ensure their workflows are capable of providing the necessary data for all the reporting requirements they will have to fulfill, as well as for surveillance and reconstruction of trades on demand from their regulator.

Bloomberg's Asset and Investment Manager (AIM) buy-side OMS has a proven track record of supporting firms to meet regulatory mandates. It is being extended to help firms meet their MiFID II requirements with a strategic enterprise workflow across the entire trade lifecycle.

- Connectivity to Bloomberg MTF and order routing to other MTFs
- IB security pill tools to assist with off venue "voice" communication
- Clock Synchronisation
- Audit log

- Voice and communication capture, storage and tagging
- Connectivity to Bloomberg RHUB, APA and ARM reporting and transparency tools

#### **Technology**

- Real-time, standardised analytics for benchmarks and model selection integrated with the Bloomberg Professional® service
- Historical trade cost analysis for improved decision support and execution strategy
- Bloomberg Multilateral Trade Facility (MTF) integrating pre-trade market data in core Terminal functionality
- Consolidated data aggregating quotes and pricing from all venues: RMs, MTFs, OTFs and APAs

## **Execution & trading workflow.**

#### **Pre-trade transparency**

#### **Routing & execution**

- Systematic Internalisers (SI) and trading venues are mandated to publish Actionable Indications of Interest" (AIOIs) publicly
- Must capture non-electronic orders and quotes
- Reporting waiver determinations based on security liquidity categorisation and trade size (LIS, SSTI)
- Routing to established trading venues: Regulated Markets (RM),
   Multilateral Trading Facilities (MTF), Organised Trading Facilities (OTF)
- Current order book, multi-RFQ and voice trading protocols to be reviewed, pending changes post-implementation
- Monitor and manage execution quality and performance (best execution)

#### How Bloomberg can help.

- SI calculation analytics
- Reporting waivers determination engine
- Bloomberg APA
- Regulatory Reporting Hub (RHUB)
- APA output linked to orders within the TSOX execution management system

- Bloomberg MTF
- Multi-venue access via Bloomberg TSOX (supporting both AIM and third party OMS)
- Real-time trading venue and algorithmic analytics (GTTA and in-trade STAZ)
- Unique agency access to dark liquidity via Bloomberg Tradebook

#### **Post-trade transparency**

- Trades in covered instruments reported by trading venue or through APA
- Delayed post-trade data available to all without charge

#### Trade allocations & confirmation (EMIR)\*

 Derivatives reported to Trade Repository (TR) T+1; greater data requirements than APA for systemic risk

- Reporting deferral determination engine
- Bloomberg APA
- Regulatory Reporting Hub (RHUB)

• Bloomberg post-trade solutions

<sup>\*</sup> Not affected by the MiFID II update.

# Bloomberg solutions.

#### **Execution & trading venues**

The Bloomberg Multilateral Trading Facility (MTF, known as BMTF) began operating on 5 October 2016. The initial phase of operation covers IRS and index CDS products.

BMTF has received regulatory approval to extend the instruments that may be traded on the platform. Over the course of 2017 products from the following asset classes will be added to BMTF:

- Fixed Income Cash Instruments
- Equity Derivatives
- Commodity Derivatives
- FX Derivatives

BMTF will offer a fully compliant MiFID II workflow and perform:

- Transparency reporting to Bloomberg's APA and RHUB
- Pre-trade credit checks
- Full clearing workflow
- Creation of Execution Quality reports
- Order record keeping
- Transaction reporting (as required)

#### Regulatory Reporting Hub (RHUB)

RHUB is a multi-asset rules and enrichment engine that helps firms address regulatory reporting requirements. RHUB takes feeds from Bloomberg OMS platforms and external OMS platforms, identifies reportable securities, enriches missing / incomplete data fields, and sends them to both Bloomberg reporting destinations (ARM, APA) as well as external reporting destinations. RHUB will offer full audit trail and reconciliation tools.

#### **Bloomberg APA**

Bloomberg's APA will provide core functionality to allow clients to publish quotes for pre- transparency and trades for post-trade transparency. Asset classes supported:

- Bonds
- Derivatives (IR/Credit/FX/Commodity/Equity)
- Structured Finance

The APA will publish the reporting record completed and sent by the client through the interface as instructed by the client. The solution is available for investment firms and trading venues.

Bloomberg will offer advanced functions to help clients prepare the reporting record. The record will then be passed to the Bloomberg APA for publication (if required).

Additional services to help clients address challenges indirectly related to pre- and post-trade transparency are available, and include:

- Identification of reporting responsibility to avoid duplicate reporting
- Services to calculate the determination of which pre- and post-trade information need to be made public
- Integration with Bloomberg and non-Bloomberg OMS – simple standardised connections managed by CIS

### Post-trade workflow.

#### **Settlement & clearing (EMIR)\***

#### **Transaction reporting**

- Trades in all covered instruments reported T+1 to National Competent Authority (NCA), the local regulators, with LEIs, other identifying personal data and economic terms
- Direct reporting through ARM or venue
- Firms must prove completeness with controls and procedures for errors and corrections

#### How Bloomberg can help.

• Direct and indirect connectivity to clearing houses

- Extension of Trading Solution's multi-asset MiFID ARM to meet MiFID II requirements
- Integration with a complete post-trade regulatory comxpliance workflow
- Trade capture and enrichment with MiFID II data across multiple asset classes (Bloomberg AIM)
- Integration with RHUB, ARM for regulatory reporting (Bloomberg AIM)
- Rules and waiver engine to prevent over-reporting (Bloomberg AIM)

<sup>\*</sup> Not affected by the MiFID II update.

#### **Best execution**

- Expanded requirements to demonstrate "sufficient" steps to provide best execution
- Publish execution policy
- Demonstrate performance against that policy
- SIs and trading venues required to publish reports on quality of execution
- Applicable to all MiFID II instruments accounting for size, price, cost, speed, likelihood of execution and settlement

#### **Trade reconstruction**

- Market abuse surveillance by identifying suspicious execution outliers and trends
- Investigate with trade reconstruction incorporating structured and unstructured data
- Compliance workflow for documenting conclusions
- Immutable Write Once, Read Many (WORM) record keeping

- The new standard for best execution consisting of the pre-trade Profiler of Execution analytic (integrated within TSOX) coupled with the multiasset Bloomberg Transaction Cost Analysis (BTCA) product for trade and trend outlier identification
- Bloomberg VAULT: comprehensive and compliant data storage and reconstruction of structured and unstructured data

# Bloomberg solutions.

#### Approved reporting mechanism

Bloomberg's Approved Reporting Mechanism (ARM) has been extended to meet the 65 MiFID II transaction reporting fields. In conjunction with the Bloomberg RHUB trade economics from order and execution management systems may be enriched with all necessary reference data and routed to the appropriate National Competent Authority (NCA).

#### **Best execution**

Bloomberg's Profiler of Execution (PEX) pre-trade analytics toolkit and Bloomberg's Transaction Cost Analysis (BTCA) service – when used together throughout the life cycle of a transaction – empower the trader to keep best execution policy as an integrated, systemic part of the trading process, whilst also offering the infrastructure necessary to manage exceptions, compile management reports, de-construct and analyze transactions post-trade, consider trends and use that information to revise execution policies.

#### **Profiler of execution (PEX)**

PEX is a pre-trade analytical tool that systemically applies a set of statistical analyses to a firm's historical trade records and current dealer contributions to provide the trader with a simple, data-driven indication of which dealers have performed best for orders with similar attributes and are best positioned to trade today.

- PEX assesses the historical, peer-to-peer trade performance between the trader's firm and its price providers, considering each order's key attributes when conducting the analysis of behaviour
- PEX scores help the trader identify the counterparties that have provided the best trading experience and are most ready to enter into a transaction at the present
- Traders access PEX through Bloomberg's execution management system for fixed income, derivatives and futures – TSOX
- TSOX ensures PEX metadata is archived and made available for ex-post analysis using the full BTCA toolkit

Bloomberg Transaction Cost Analysis (BTCA) helps users gain context and deeper insight into trading performance. Harnessing the breadth of Bloomberg's global market and pricing data and a vast range of analytical tools, BTCA delivers transparent, broker-neutral transaction cost analysis across asset classes.

#### **Key features:**

- Supports fixed income, equities, foreign exchange and exchange-traded derivatives (more in development)
- Over 100 benchmarks for relative or absolute comparison
- Cost decomposition across the order lifecycle from decision through final fill
- Flexible on-demand or scheduled reporting for any date range
- Pre-configured report styles include on-Terminal and interactive as well as presentation ready
- Exception-based architecture streamlines workflow and outlier investigations
- Single-click access to Bloomberg's analytics, charting, news and data for forensic-level trade analysis
- Full integration with Bloomberg EMS/OMS (AIM and EMSxNet, the open order-routing network
- Open architecture incorporates trade data from third-party systems

#### Record keeping, trade reconstruction & surveillance

Bloomberg VAULT – comprehensive and compliant data storage and reconstruction of structured and unstructured data.

#### File analytics

- Gain visibility into unstructured data repositories to identify sensitive data
- Globally search, manage, retain and analyse data instantly

#### Trade reconstruction

- Instantly search and associate communication data transactions for export
- Complement internal trade compliance/ surveillance practices

#### **Enterprise archiving**

- Immutable Storage
- Letters of Attestation

#### Surveillance

- Real-time policy management
- Dramatically reduce false positives

#### **eDiscovery**

- Advanced search, analytics and review
- Improves performance and efficiency
- LEI issuance through
- Bloomberg has applied to be a LOU with accreditation pending



# Sell-side solutions.

### Pre-trade workflow.

#### Research & idea generation

- Research has the potential to be considered an inducement to trade
- MiFID II requires the unbundling of research from trading commissions
- Research budgeting, evaluation, payment mechanisms and reporting obligations
- MiFID II will require new documentation to be shared between firms and a clean audit trail of the agreed CSA and RPA terms

#### **Pre-trade analytics**

- Real-time market data to be provided to public on "reasonable commercial basis"
- Pre-trade liquidity characteristic and trade venue assessment and selection diligence for order routing and execution
- Incorporation of historical best execution metrics and diligence requirements

#### How Bloomberg can help.

- New research entitlement systems
- Protection over content re-distribution
- Readership statistics
- Research marketplace solutions
- Bloomberg's Entity Exchange will facilitate repapering

 Real-time, standardised analytics for benchmarks and model selection integrated with the Bloomberg Professional service

#### **Price discovery**

- Real-time market data to be provided to public on "reasonable commercial basis"
- Pre-trade liquidity characteristic and trade venue assessment and selection diligence for order routing and execution
- Incorporation of historical best execution metrics and diligence requirements

#### **Order management**

- New order origination and transmission requirements, including "decision-maker" identification detail captured for record keeping
- UTC clock synchronisation
- Time stamp granularity
- Voice communication tagging and storage

- Historical trade-cost analysis for improved decision support and execution strategy
- Bloomberg Multilateral Trade Facility (MTF) integrating pre-trade market data in core Terminal functionality
- Consolidated data aggregating quotes and pricing from all venues: RMs, MTFs, OTFs and APAs

- Trade capture and enrichment with MiFID II data (Bloomberg TOMS and SSEOMS)
- Salesperson-trader OMS workflow tools (Bloomberg TOMS and SSEOMS)
- IB security pill tools to assist with off venue "voice" communication
- Clock synchronisation
- Voice and communication capture, storage and tagging (Bloomberg VAULT)

# Bloomberg solutions.

#### Client outreach

MiFID II requires firms to plan for client engagement. Any changes to execution policy, research pricing and risk will need to be disclosed with client consent and a clean audit trail. Bloomberg's Entity Exchange delivers a fast, efficient and flexible service to meet this need.

- Facilitates both client onboarding and repapering associated with MiFID II changes in policy via a web-based platform
- Delivers and maintains reference data direct from the source
- Flexible, secure and transparent communication to alleviate the fatigue of multiple requests for information

#### **Order management Systems**

To operate efficiently in this new environment, firms will have to ensure that workflows are capable of providing the necessary data for all the reporting requirements they will have to fulfil, as well as for surveillance and reconstruction of trades on demand from their regulator.

Bloomberg's Trade Order Management Solutions (TOMS) for the sell side is being extended to help firms meet their MiFID II requirements with a strategic enterprise workflow across the entire trade life cycle.

- E-Connectivity to Bloomberg MTF and order routing to other MTFs
- IB security pill tools to assist with off-venue "voice" communication
- Clock synchronisation
- Order routing to traders using ETOMS or in-house/third-party pricing engines and execution tools
- Connectivity to Bloomberg RHUB, APA and ARM
- Voice and communication capture, storage and tagging (Bloomberg VAULT)

#### Bloomberg's sell-side equity order

Management Solutions (SSEOMS) for the sell side is being extended to help firms meet their MiFID II requirements with a strategic enterprise workflow across the entire trade life cycle.

- E-Connectivity and order routing to Trading Venues and MTFs
- IB security pill tools to assist with off-venue "voice" communication
- Clock synchronisation
- Connectivity to the client's APA
- Voice and communication capture, storage and tagging (Bloomberg VAULT)
- Connectivity to Bloomberg RHUB

#### Technology

- Real-time, standardised analytics for benchmarks and model selection integrated with the Bloomberg Professional service
- Historical trade cost analysis for improved decision support and execution strategy
- Bloomberg Multilateral Trade Facility (MTF) integrating pre-trade market data in core Terminal functionality
- Consolidated data aggregating quotes and pricing from all venues: RMs, MTFs, OTFs and APAs

### **Execution & trading workflow.**

#### **Pre-trade transparency**

**Routing & execution** 

- Systematic Internalisers (SI) and trading venues are mandated to publish "Actionable Indications of Interest" (AIOIs) publicly
- Must capture non-electronic orders and quotes
- Reporting waiver determinations based on security liquidity categorisation and trade size (LIS, SSTI)
- Routing to established trading venues: Regulated Markets (RM),
   Multilateral Trading Facilities (MTF), Organised Trading Facilities (OTF)
- Current order book, multi-RFQ and voice-trading protocols to be reviewed, pending changes post-implementation
- Monitor and manage execution quality and performance (best execution)

#### How Bloomberg can help.

- SI determination and calculation analytics
- Reporting waivers determination engine
- Bloomberg APA
- Regulatory Reporting Hub (RHUB)

• Bloomberg MTF

#### **Post-trade transparency**

#### Trade allocations & confirmation (EMIR)\*

- Trades in covered instruments reported by trading venue or through APA
- Delayed post-trade data available to all without charge

 Derivatives reported to Trade Repository (TR) T+1; greater data requirements than APA for systemic risk

- Reporting deferral determination engine
- Bloomberg APA
- Regulatory Reporting Hub (RHUB)

• Bloomberg post-trade solutions

<sup>\*</sup> Not affected by the MiFID II update.

## Bloomberg solutions.

#### **Execution & Trading Venues**

The Bloomberg Multilateral Trading Facility (MTF, known as BMTF) began operating on 5 October 2016. The initial phase of operation covers IRS and index CDS products.

BMTF has received regulatory approval to extend the instruments that may be traded on the platform. Over the course of 2017 products from the following asset classes will be added to BMTF:

- Fixed Income Cash Instruments
- Equity Derivatives
- Commodity Derivatives
- FX Derivatives

BMTF will offer a fully compliant MiFID II workflow and perform:

- Transparency reporting to Bloomberg's APA
- Pre-trade credit checks
- Full clearing workflow
- Creation of Execution Quality reports
- Order record keeping
- Transaction reporting (as required)

#### Regulatory Reporting Hub (RHUB)

RHUB is a multi-asset rules and enrichment engine that helps firms address regulatory reporting requirements. RHUB takes feeds from Bloomberg OMS platforms and external OMS platforms, identifies reportable securities, enriches missing / incomplete data fields, and sends them to both Bloomberg reporting destinations (ARM, APA) as well as external reporting destinations. RHUB will offer full audit trail and reconciliation tools.

#### **Bloomberg APA**

Bloomberg's APA will provide core functionality to allow clients to publish quotes for pre-transparency and trades for post-trade transparency.

Asset classes supported:

- Bonds
- Derivatives (IR/Credit/FX/Commodity/Equity)
- Structured Finance

The APA will publish the reporting record completed and sent by the client through the interface as instructed by the client. The solution is available for investment firms and trading venues.

Bloomberg will offer advanced functions to help clients prepare the reporting record. The record will then be passed to the Bloomberg APA for publication (if required).

Additional services to help clients address challenges indirectly related to pre- and post-trade transparency are available, and include;

- Identification of reporting responsibility to avoid duplicate reporting
- Services to calculate the determination of which pre- and post-trade information need to be made public
- Integration with Bloomberg and non-Bloomberg OMS – simple standardised connections managed by CIS

### Post-trade workflow.

#### Settlement & clearing (EMIR)\*

#### **Transaction reporting**

- Trades in all covered instruments reported T+1 to National Competent Authority (NCA), the local regulators, with LEIs, other identifying personal data and economic terms
- · Direct reporting through ARM or venue
- Firms must prove completeness with controls and procedures for errors and corrections

#### How Bloomberg can help.

• Direct and indirect connectivity to clearing houses

- Extension of Trading Solution's multi-asset MiFID ARM to meet MiFID II requirements
- Integration with a complete post-trade regulatory compliance workflow
- Trade capture and enrichment with MiFID II data (Bloomberg TOMS and SSEOMS)
- Integration with RHUB, ARM for regulatory reporting (Bloomberg TOMS and SSEOMS)
- Rules and waiver engine to prevent overreporting (Bloomberg TOMS and SSEOMS)

<sup>\*</sup> Not affected by the MiFID II update.

#### **Best execution**

- Expanded requirements to demonstrate "sufficient" steps to provide best execution
- Publish execution policy
- Demonstrate performance against that policy
- SIs and Trading Venues required to publish reports on quality of execution
- Applicable to all MiFID II instruments accounting for size, price, cost, speed, likelihood of execution and settlement

#### **Trade reconstruction**

- Market abuse surveillance by identifying suspicious execution outliers and trends
- Investigate with trade reconstruction incorporating structured and unstructured data
- Compliance workflow for documenting conclusions
- Immutable Write Once, Read Many (WORM) record keeping

 Multi-asset Bloomberg Transaction Cost Analytics (BTCA) product for trade and trend outlier identification  Bloomberg VAULT: comprehensive and compliant data storage and reconstruction of structured and unstructured data

# Bloomberg solutions.

#### Approved reporting mechanism

Bloomberg's Approved Reporting Mechanism (ARM) has been extended to meet the 65 MiFID II transaction reporting fields. In conjunction with the Bloomberg RHUB trade economics from order and execution management systems may be enriched with all necessary reference data and routed to the appropriate National Competent Authority (NCA).

#### **Best execution**

Bloomberg Transaction Cost Analysis (BTCA) helps users gain context and deeper insight into trading performance. Harnessing the breadth of Bloomberg's global market and pricing data and a vast range of analytical tools, BTCA delivers transparent, broker-neutral transaction cost analysis across asset classes.

#### **Key features:**

- Supports fixed income, equities, foreign exchange and exchange-traded derivatives (more in development)
- Over 100 benchmarks for relative or absolute comparison
- Cost decomposition across the order lifecycle from decision through final fill
- Flexible on-demand or scheduled reporting for any date range
- Pre-configured report styles include on-Terminal and interactive as well as presentation ready
- Exception-based architecture streamlines workflow and outlier investigations
- Single-click access to Bloomberg's analytics, charting, news and data for forensic-level trade analysis
- Full integration with Bloomberg EMS/OMS (TOMS/SSEOMS) and EMSxNet, the open order-routing network
- Open architecture incorporates trade data from third-party systems

#### Record keeping, trade reconstruction & surveillance

Bloomberg VAULT – comprehensive and compliant data storage and reconstruction of structured and unstructured data.

#### File analytics

- Gain visibility into unstructured data repositories to identify sensitive data
- Globally search, manage, retain and analyse data instantly

#### **Trade reconstruction**

- Instantly search and associate communication data transactions for export
- Complement internal trade compliance/surveillance practices

#### **Enterprise archiving**

- Immutable storage
- Letters of attestation

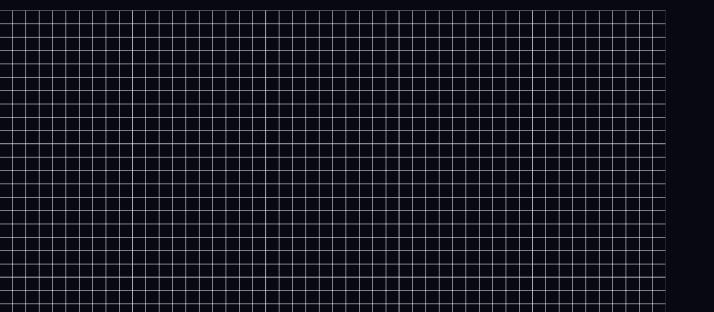
#### Surveillance

- Real-time policy management
- Dramatically reduce false positives

#### eDiscovery

- Advanced search, analytics and review
- Improves performance and efficiency
- LEI issuance through
- Bloomberg has applied to be a LOU with accreditation pending

# Who you should contact.



## Ask us how we can help you comply with MiFID II.

For more information on Bloomberg MiFID II solutions, contact your Bloomberg representative, email bbg\_mifid@bloomberg.net or visit bloomberg.com/professional/mifid-ii

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TOMS clients: contact your TOMS sales representative or visit TOMS <GO>
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