



MiFID II & EMIR – an opportunity to improve data quality and align regulatory initiatives

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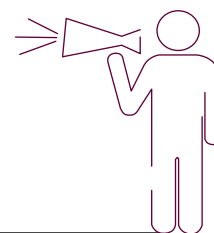
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1 Introduction

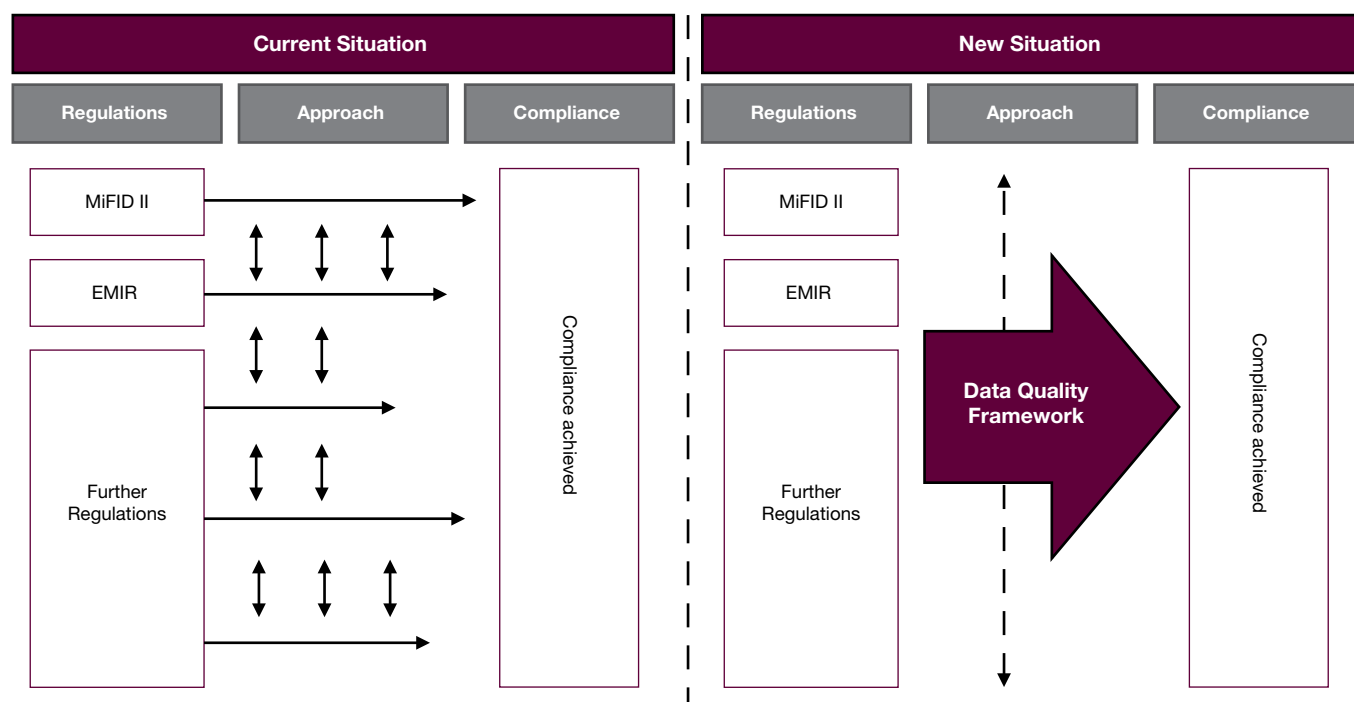
Financial institutions have been exposed to many market regulations for a long time.

Since 2008 this number has further increased, and reached confusingly high levels. Organizations are often forced to implement new regulations simultaneously, lacking the time to sufficiently analyze and harmonize multiple compliance initiatives. A basic approach which establishes a common basis for further adaptation to specific regulations could help financial institutions to streamline their compliance activities, exploit synergies and reduce implementation costs.

In order to find application opportunities for such an approach, supported by examples, the following article analyzes the Markets in Financial Instruments Directive (MiFID II), the European Market Infrastructure Regulation (EMIR) as well as a variety of associated legislations in the regulatory environment. It carves out similarities between the guidelines and presents the Data Quality Framework, developed by Capgemini Consulting. The DQ-Framework focuses on data quality improvement as a common basis for addressing and aligning the requirements of several regulations. The article highlights

how by addressing an organization's data quality issues, the implementation of the Data Quality Framework helps to align multiple compliance programs, reduces their coordination-based complexity and eliminates overlaps. Initially, MiFID II and EMIR will be looked at more closely in order to find a starting point for alignment.

Figure 1: Regulatory projects with and without the Data Quality Framework



- Regulations are tackled in parallel project streams
- There might be overlaps between individual projects
- Coordination is complex
- Projects are at different stages of completion

- The Data Quality Framework can align the key objectives of multiple regulatory project streams
- Elimination of overlaps and extensive coordination



2 MiFID II/MiFIR and EMIR

MiFID II/MiFIR

MiFID II (Markets in Financial Instruments Directive) and MiFIR (Markets in Financial Instruments Regulation), collectively known as MiFID II, represent an update to the MiFID I directive dating from 2004. The directive covers new dealing commission rules, transaction reporting, clearing and other transparency requirements. The regulation addresses the authorization, conduct, and systems of investment companies. Both will be applicable in the EU as of January 3rd 2018, one year after the initially advised application date. The legislation will affect all investment intermediaries that provide services to clients in the area of shares, bonds, units in collective investment schemes and derivatives (collectively known as “financial instruments”).

MiFID II focuses on three key objectives: transparency, market structure, and investor protection.

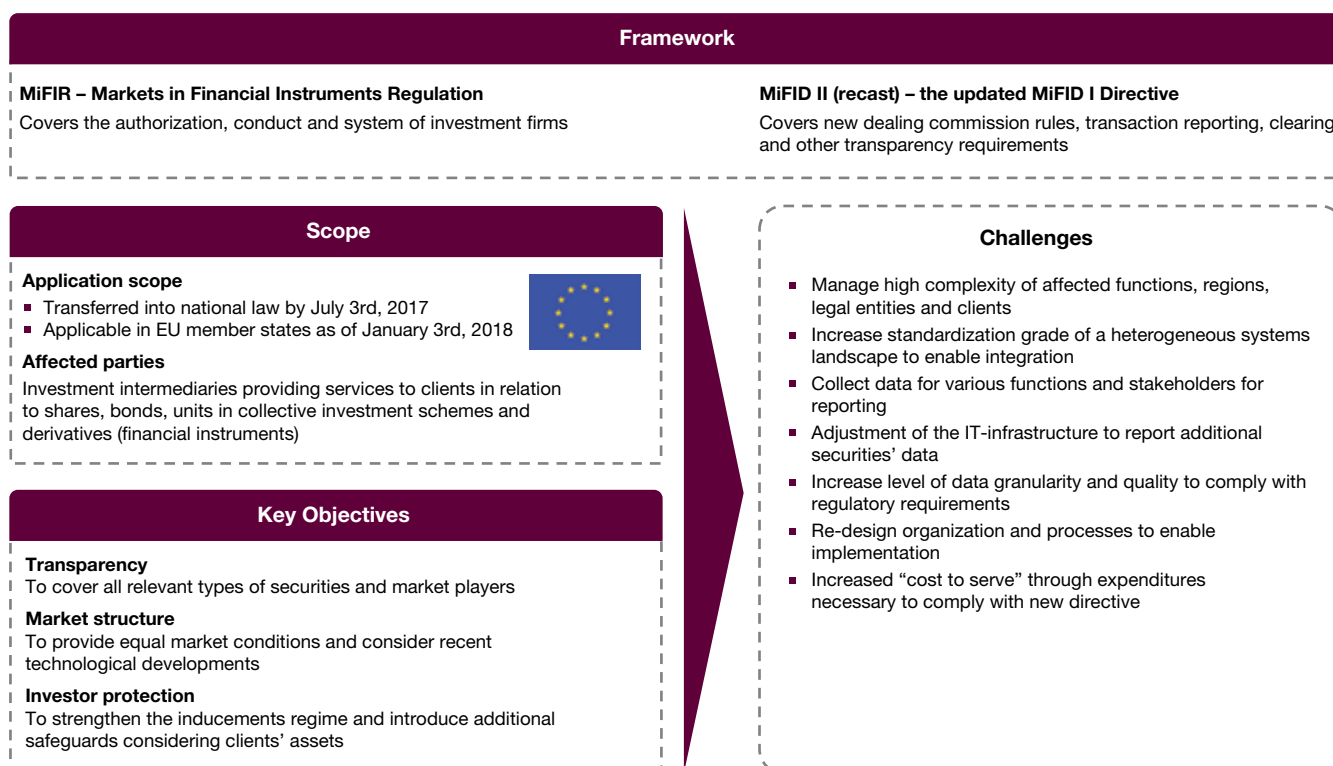
A superior level of investor protection is to be achieved through strict product governance and the reporting of additional, more detailed information to clients, such as costs and charges. Moreover, the recordkeeping of telephone conversations and electronic communication is required, and MiFID II intends to strengthen the inducements regime and introduce additional safeguards with regards to clients’ assets.

MiFID II implications concerning the market structure involve a trade obligation for equity and new trading venues, such as Organized Trading Facilities (OTFs) and Multilateral Trading Facilities

(MTFs). Furthermore, algorithmic and high frequency trading is to be put under enhanced supervision, position limits on commodities introduced, and open competition strengthened by allowing open access to central counterparties (CCPs) and trading venues.

The transparency goals oblige organizations to publish pre- and post-trade information such as quotes, prices, and quantities. Transaction reporting to National Competent Authorities (NCAs) is required as well as the recording of orders and the provision of instrument data.

Figure 2: Overview MiFID II/MiFIR



EMIR

EMIR (European Market Infrastructure Regulation) is the European legislation for the regulation of OTC derivatives (Over the counter market). It came into force in the EU Member States on August 16th, 2012 and further provisions followed throughout 2013 and 2014. EMIR covers all derivatives contracts which are not executed on regulated markets and affects all EU derivatives market participants, including banks, insurance companies, pension funds, investment firms, corporates and funds.

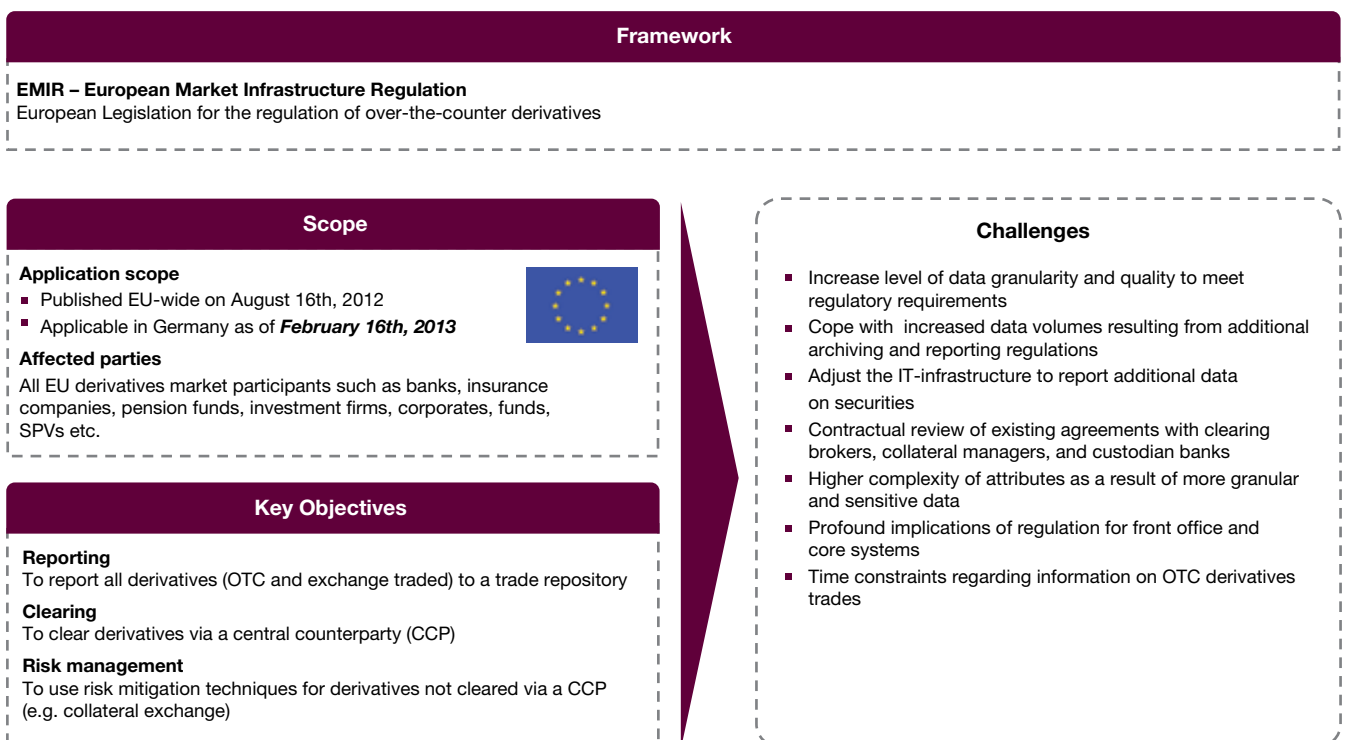
Similar to MiFID II, EMIR focuses on three main objectives, although its scope is limited to OTC derivatives. These objectives are reporting, clearing, and risk mitigation.

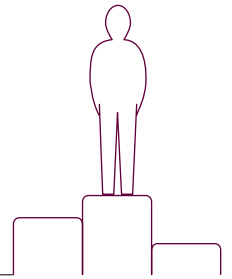
EMIR requires financial counterparties (FCs) as well as non-financial counterparties (NFCs) to report trade details to registered trade repositories. These could include energy suppliers trading with electricity certificates, for example. Both exchange- traded and OTC derivatives are affected by this regulation.

The clearing obligation under EMIR also applies to FCs and NFCs both of which need to clear OTC derivative trades through an authorized CCP. This measure aims at reducing the counterparty credit risk and will be used on a product-by-product (asset class) basis.

EMIR's risk mitigation standards apply to all OTC derivatives without a clearing obligation. In order to reduce operational risk timely confirmations, portfolio reconciliations and dispute resolution procedures become compulsory.

Figure 3: Overview EMIR





3 Challenges

MiFID II and EMIR pose a number of challenges to the affected organizations. Thematically, these challenges relate to the regulations' objectives, and concern areas such as IT-infrastructure, data reporting, but also financial and legal issues. In addition, the complex environment of the firms' affected functions, regions, legal entities and clients make the challenges even more demanding.

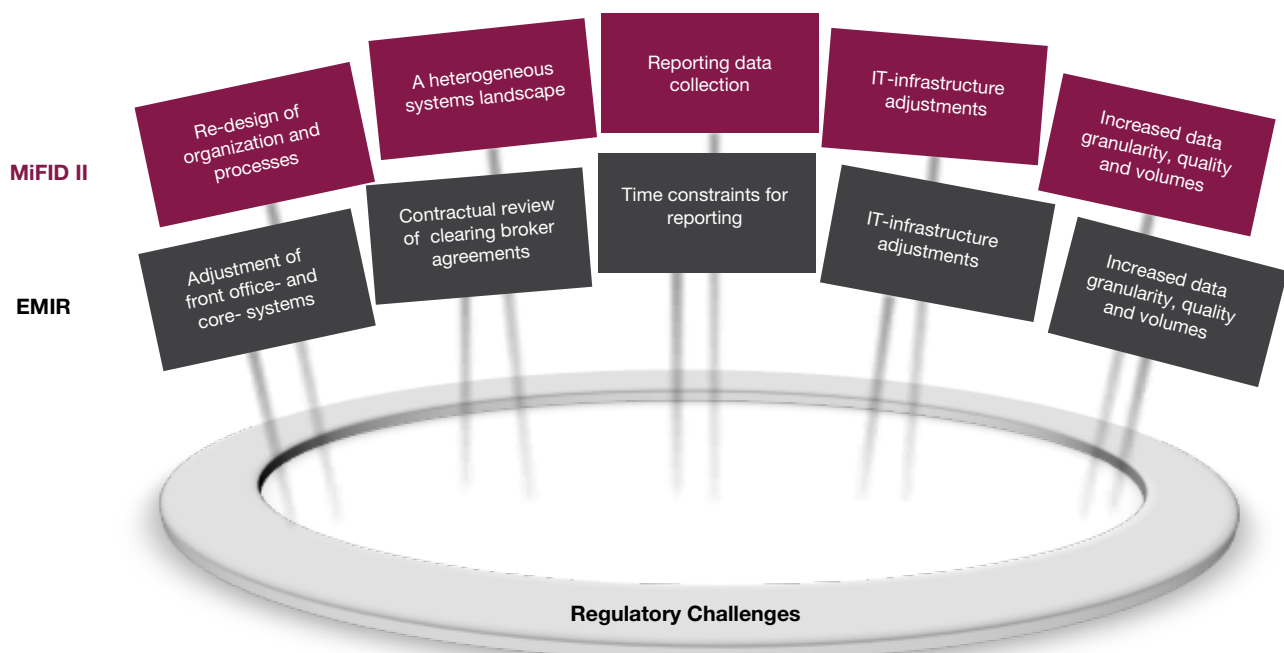
To comply with MiFID II, it might be necessary to redesign both organization as well as processes and increase the degree of standardization of the systems landscape in order to enable

the implementation of the regulation. Additional granular data of higher quality is required for responding to the regulatory obligations, and the IT infrastructure will need to be adapted to cope with the reporting requirements of additional data on securities. An example of a data-challenge are data-gaps. MiFID II requires a number of new data fields and the extension of others. "In many cases, the required data does not exist or it is not yet fully formed, so firms need to be proactive and use all the time that's available to close the gaps", says Chris Johnson, Senior Product Manager, Market Data at

HSBC Securities Services¹. Ultimately, the execution of the described steps will increase the "cost to serve", which means that organizations will have to account for the implementation costs as well as potential future running costs of new systems' licenses or additional server space, for example.

EMIR implies similar challenges as MiFID II. The IT infrastructure as well as front office and core systems will have to be adapted to new requirements. Additional data on securities will be reported, and the systems and hardware need to

Figure 4: Challenges for organizations through MiFID and EMIR

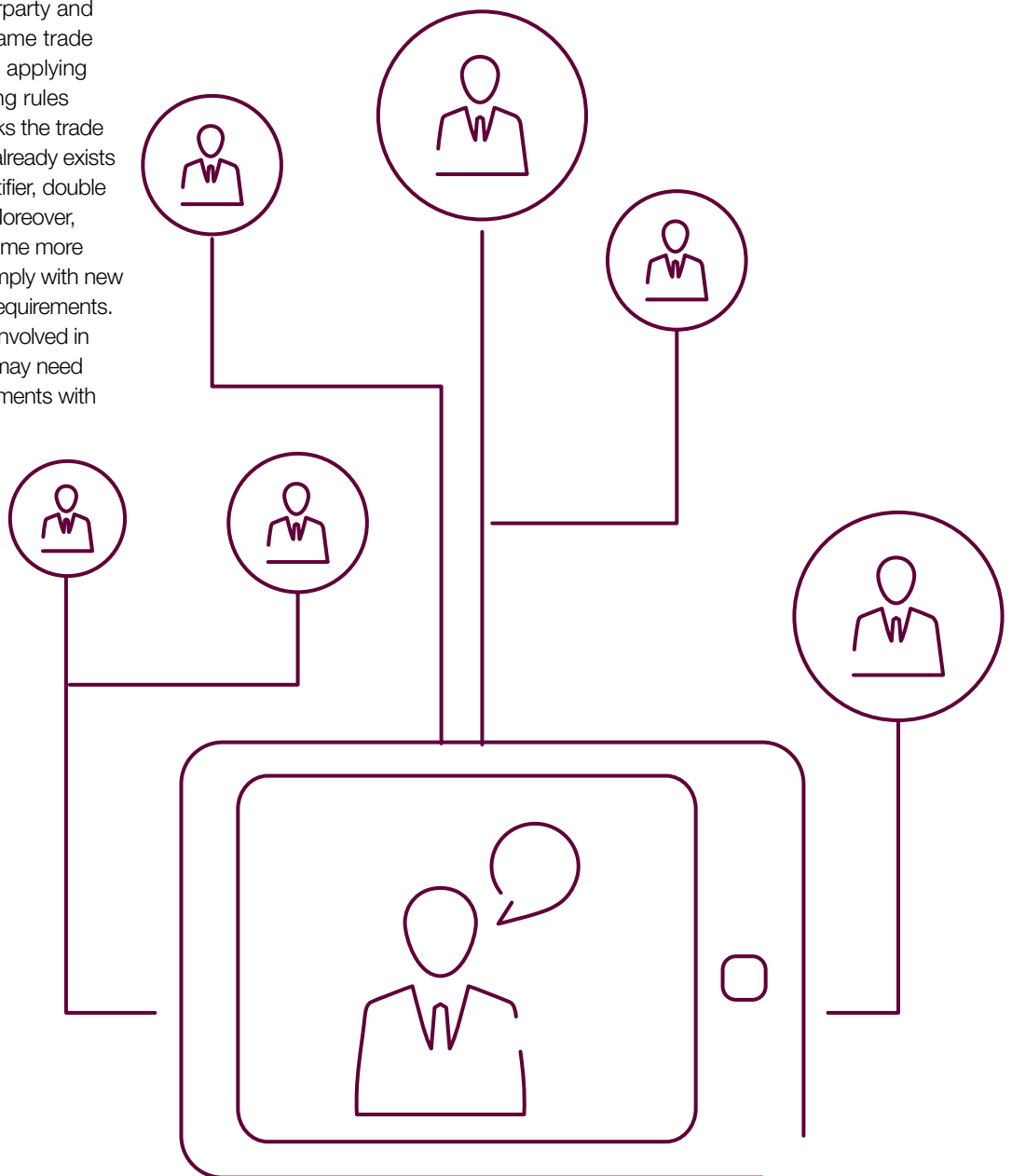


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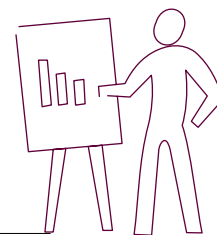
¹ Regulation Review - Data Management Challenges of MiFID II, datamanagementreview.com, 2016

cope with the increasing data volumes resulting from the additional archiving and reporting regulations. An example for a reporting-challenge related to EMIR is the double-reporting of derivatives trades. Minor differences in counterparty and trade identifiers make the same trade appear to be different when applying the EMIR regulatory reporting rules automatically. If a bank checks the trade repository for a trade which already exists under a slightly different identifier, double reporting is likely to occur.² Moreover, the attributes are set to become more complex and will have to comply with new data quality and granularity requirements. In the case of EMIR, parties involved in the OTC derivatives market may need to review their existing agreements with

clearing brokers, collateral managers and custodian banks. Lastly, there are also time constraints regarding the reporting of information on OTC derivatives trades.



² Challenges of EMIR Delegated Reporting for Derivatives Trades, riskfocus.com, 2014



4 Regulatory environment

The regulatory market environment of the EU financial sector aims at achieving financial markets that are more transparent in order to better control the ethics and compliance dimensions. In this environment, MiFID II and EMIR are joined by several associated regulations covering other parts of the financial markets. In some cases, a certain overlap between similar regulations exists. In other cases, specific topics are omitted from one regulation in order to deal with them in another framework.

MiFID II and EMIR share the regulatory coverage of the OTC derivatives market. While MiFID II introduces a trade obligation for OTC derivatives as part of its market structure related measures, EMIR

addresses the duty for central clearing. In this case, both regulations complement each other.

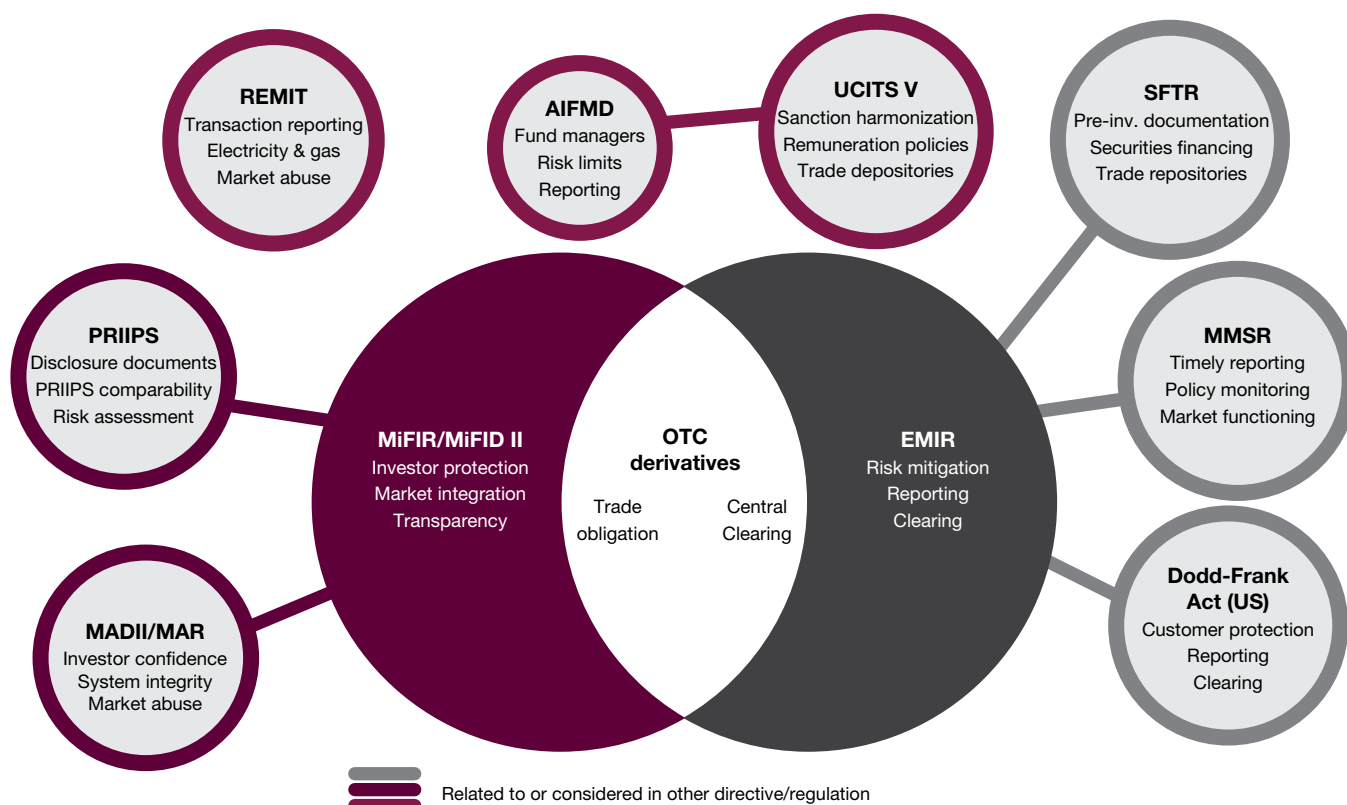
One of the regulations in the environment of MiFID II and EMIR is the Alternative Investment Fund Managers Directive (AIFMD). As its name suggests, it is applicable to all alternative investment funds and managers, and addresses sound and prudent remuneration policies. The directive supports organizational structures for reasonable and effective risk management.

The Market Abuse Directive and Regulation (MAD II/MAR) aims at preventing market abuse, increase investor confidence, and ensure the integrity of the financial

system. It introduces minimum sanctions for market abuse, bans benchmark manipulations and also covers OTC and new platforms (AIM, MTF, and OTF). Parts of the directive are closely related to MiFID II, such as the section on notification requirements.

Money Market Statistical Reporting (MMSR) contains transaction-by-transaction data on a legal entity basis, which has to be reported on a daily basis. The derivatives data required under MMSR is also assessed under EMIR. However, due to deviating timeliness and standardization levels it cannot be utilized in the same format and has to be covered twice.

Figure 5: Regulatory environment of MiFID II and EMIR



The Packaged Retail and Insurance-based Investment Products regulation (PRIIPS) improves the information available surrounding this product class for retail investors by requiring PRIIP-manufacturers to publish key information documents (KIDs). PRIIPS depend on the returns or performance of other assets, and the regulation's product and disclosure requirements overlap with those of MiFID II.

The Regulation on wholesale Energy Markets Integrity and Transparency (REMIT) affects participants in the energy and gas market. It prohibits insider trading, introduces a report obligation, and strengthens the position of the regulator. Transactions which are reported under EMIR are excluded from the regulation in order to avoid overlap.

The Financing Transactions Regulation (SFTR) applies to both financial and non-financial counterparties. It promotes transparency in areas such as securities and commodities lending, repurchase

transactions, and margin loans and collateral arrangements. SFTR excludes numerous derivatives transactions, however, as these are part of EMIR.

The Undertaking for Collective Investments in Transferable Securities (UCITS V) emphasises investor confidence, introduces the obligation to report to trade depositories, and harmonizes minimum sanctions. UCITS V is aligned with AIFMD.

Even though it is not a European legislation, the Dodd-Frank Act can be also be included among the important instruments for the regulation of financial markets. The Dodd-Frank act is the US equivalent to EMIR and is also applicable in the EU since it covers the OTC derivatives market for financial and non-financial institutions in the US or that do business there. Like EMIR it addresses market transparency, efficiency and competitiveness, and reduces systemic risk.

Common regulatory objectives

When considering MiFID II, EMIR and their regulatory environment, a number of common objectives can be identified. These include the desire for more transparency, stricter and timelier documentation and reporting, improved risk management, and the introduction of new platforms. All of these objectives relate to data and data quality management in one way or another. Transparency and reporting, for example, depend heavily on the prompt availability of data. Risk management functions, on the other hand, access this data, while new platforms can facilitate the provision and granularity level of the required data. Capgemini Consulting has developed an appropriate framework which covers these common objectives by addressing data quality issues.

5 The Data Quality Framework

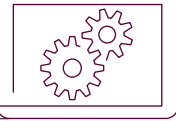
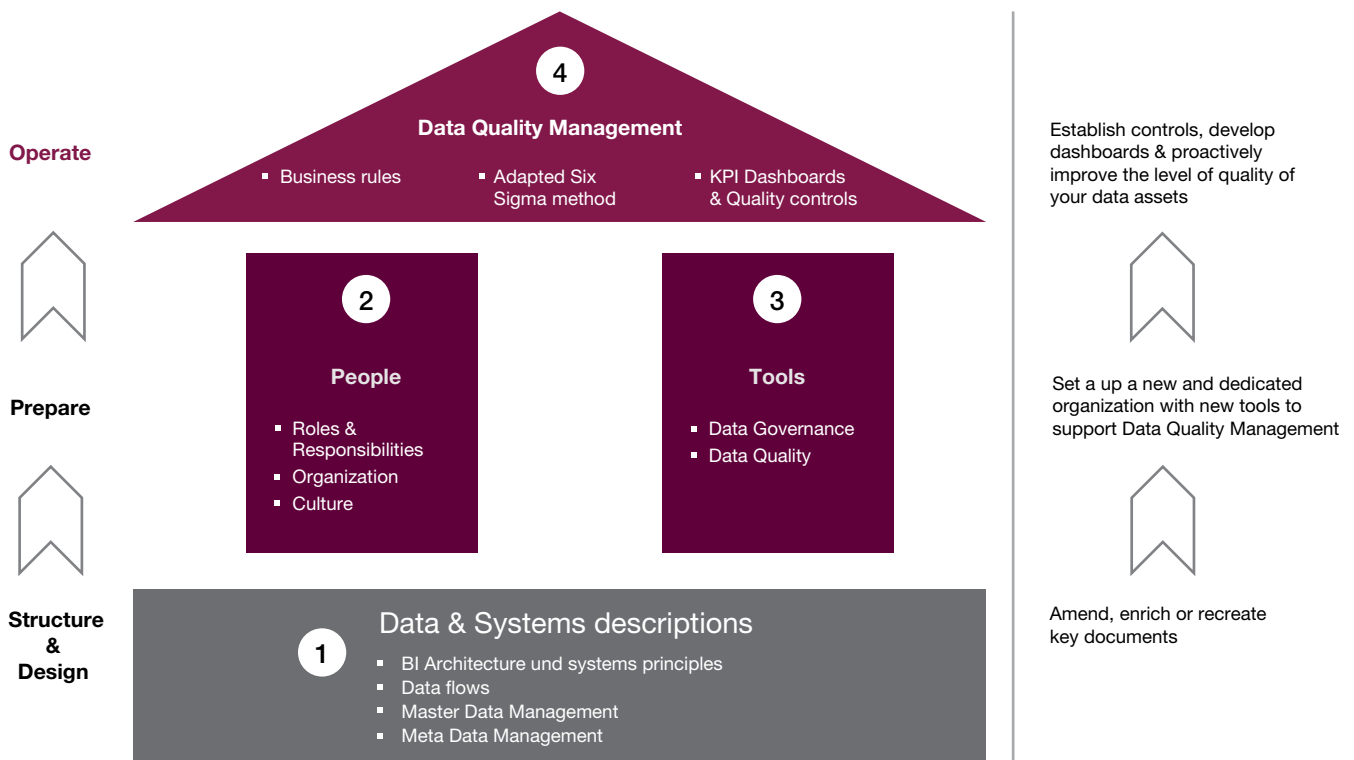


Figure 6: The Data Quality Framework

The DQ-Framework is an approach which systematically covers the relevant areas of an organization to solve data quality issues



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The Data Quality Framework (DQF) enables its users to systematically assess, plan, and implement the necessary actions in order to prepare an organization for the challenges of a complex regulatory environment. It is an approach which systematically covers the relevant areas of an organization to solve data quality issues, and it addresses the common challenges and key objectives of MiFID II, EMIR, as well as several of the associated regulations. The DQ-Framework consists of four components: data & systems descriptions, people, tools and data quality management.

Data & systems descriptions

Data & systems descriptions represent the basis of the DQ-Framework. Data is the core element of the data architecture and data flows. An organization should create IT architecture cartographies of key systems and assesses the data lineage of crucial data. Furthermore, a Metadata repository and Master Data Management should be implemented.

People

People ultimately implement the DQ-Framework within an organization, and data governance requires a clear

definition of roles. Data governance is the overall management of the availability, usability, integrity, and security of the data employed in an enterprise, and a chief data officer represents the DQ-framework. Other data-related roles in the organization are supported by the framework. Important roles may entail data stewards, business owners, data owners and data custodians.

Tools

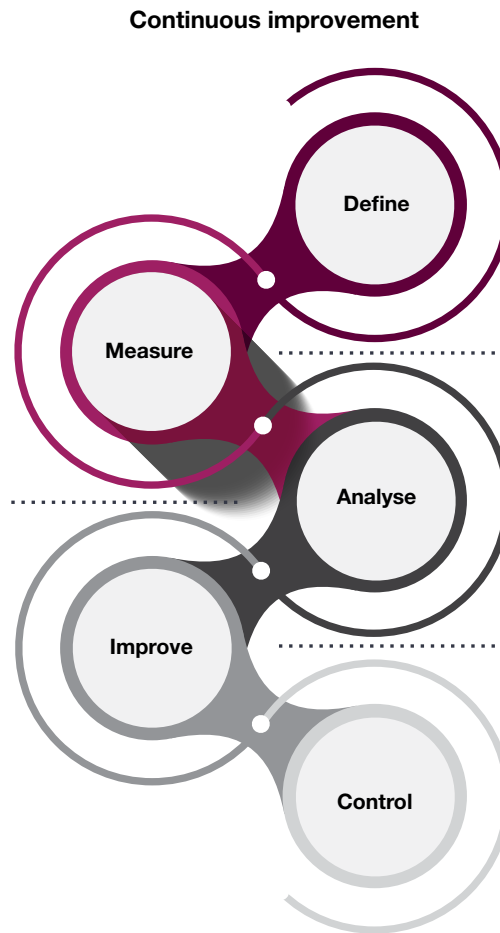
Accepted Data Governance tools and established DQ Tools are decisive in providing effective support to the DQ

Framework. Examples of such tools include data glossaries/dictionaries, data flowcharts and lineages, business roles, controls, quality dashboards and issue management.

Data Quality Management

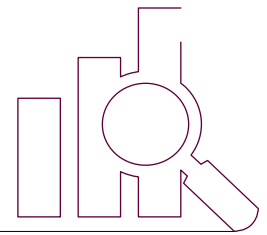
Data quality management refers to the continuous improvement of the data quality, which is accomplished through business rules, improvement measures and a KPI dashboard. This process, which represents the fourth and final step in the DQ-Framework, differs from steps one to three due to its continuity aspect. The first three components of the DQ-Framework, of data and systems descriptions, people, and tools, describe the areas in which data quality issues can be addressed. Data Quality Management, the fourth component, refers to an ongoing process to ensure the data quality after the first three parts have been sufficiently covered.

Figure 7: Continuous Improvement in Data Quality Management



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6 Applying DQF to regulatory challenges

The Data Quality Framework addresses the identified key objectives of MiFID II, EMIR, and associated regulations. In particular, pillars 1 - 3 of the DQ-Framework deal with these topics.

The first pillar, data and systems descriptions, emphasizes the importance of the master data management and data lineage. Both are closely related to the transparency and documentation objectives of the considered guidelines. The definition of data standards in form of a data dictionary, for example, contributes to a clearer understanding of the data requirements. The reporting of data including quotes, prices, and market depth as well as the price and quantity of securities (e.g. emission certificates or exchange traded funds) under MiFID II improves the pre- and post-trade transparency. Moreover, trade data matching, especially for OTC derivatives, facilitates the reporting of MiFID II and EMIR data. Lastly, pillar one also covers the documentation of investment advice (offer,

appropriateness, and costs), including the recording of investment interviews under MiFID II.

The second pillar, people, underlines the importance of data-related roles within a company in order to improve data quality issues and prompt reporting. The most important role covered by the people pillar is the chief data officer (CDO), who promotes higher data quality standards as required by MiFID II and EMIR with the appropriate authority. Furthermore, data custodians can be appointed to work at the interface of business and IT to improve the transfer of concepts between the business and the technical worlds. In addition, training for sales employees surrounding information duties, the obligation to record sales conversations, and new regulations regarding provisions and commissions under MiFID II help to improve the data quality and reduce reporting times.

The third pillar, tools, relates to data governance and data quality tools that provide effective support to the

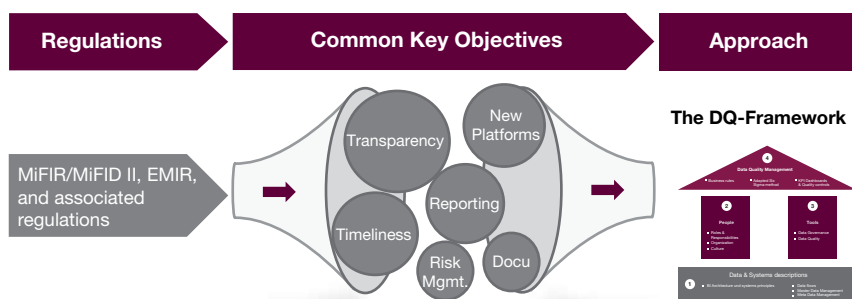
EMIR at a European Energy Provider

A major European power producer and trader of derivatives and physical energy contracts had to comply with the EMIR requirements. In order to achieve compliance, Capgemini Consulting was asked to establish an independent, reliable and cost efficient reporting framework. For this purpose Capgemini Consulting applied its Data Quality Framework (DQF). The framework was used to ensure the coverage of all relevant aspects of EMIR in the new reporting framework. For example, the DQF facilitated the assessment of the energy provider's systems landscape and internal data sources as well as the evaluation of existing software solutions and trade repositories. As a result, the client and Capgemini Consulting were able to realize a tailor-made and independent reporting solution providing timely and reliable transaction reporting under EMIR.

DQ-Framework. The pillar covers objectives such as the application of new data governance tools (e.g. AXIOM, ABACUS, UnaVista, etc.) that consider the relevant data governance concepts regarding the transaction reporting (MiFID II) and OTF-platforms (EMIR). Moreover, the selection of a suitable trade repository (e.g. CME, UnaVista, ICE, etc.) which minimizes the additional adaption outlay required under EMIR is also part of this pillar. Further aspects are the integration of IT-systems supporting investment interviews and recording functions, and the use of tools which support near real time access to the filed data and reporting channels under MiFID II.

As stated, the fourth pillar ensures the desired data quality level is maintained or even increased after the pillars one to three have been successfully implemented.

Figure 8: Common regulatory key objectives



- Many regulations governing the financial sector pursue similar objectives
- Common topics are: transparency, reporting, documentation, timeliness, risk management, and new platforms
- A big proportion of these objectives relates to Data (Quality) Management



65EG

9R8M

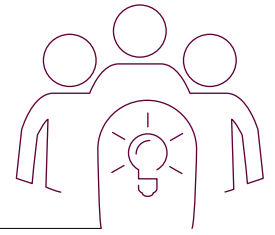
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7 Conclusion

In the current financial markets environment, increasing numbers of regulations can be seen to impose compliance-related challenges on financial institutions. MiFIR/MiFID II and EMIR, for example, emphasize the accurate reporting of financial positions and have a lot in common with other associated regulations. They all pursue objectives related to data quality management to improve or introduce transparency, timely financial reporting, documentation, risk management, and new platforms. In order to cope with the data-related challenges reliable IT infrastructures and business intelligence systems are needed. They enable institutions to take sound data-driven decisions and provide clean data to make better strategic decisions.

The Data Quality Framework, developed by Capgemini Consulting, is an approach which is able to pursue the common objectives of a diverse regulatory

environment. This is achieved by focusing on data quality as the essential driver behind most objectives, and by addressing this topic with specific actions within a set of four categories. Data and systems descriptions form the basis of the framework and provide its structure and design. People and tools prepare the organization for the efficient handling of its data. Ultimately, the data quality management describes a continuous application of business rules and quality controls in order to ensure the data quality. In addition to covering the objectives of multiple associated regulations, this structure allows the DQ Framework to comprehensively solve data quality issues.

In particular, institutions that are subject to multiple financial regulations benefit from the application of the Data Quality Framework. The quality-assured risk data promotes improved decision-making, greater confidence and a more

stable business strategy. An established DQ-Framework offers an improved ability so as to respond quickly and effectively to changes in corporate strategy and multiple regulatory requirements, such as MiFIR/MiFID II and EMIR. Moreover, improved data quality leads to an optimization in both business and IT processes. Manual workarounds and custom data processing measures will become obsolete. However, a modern BI-architecture is a fundamental requirement for a digital business model.



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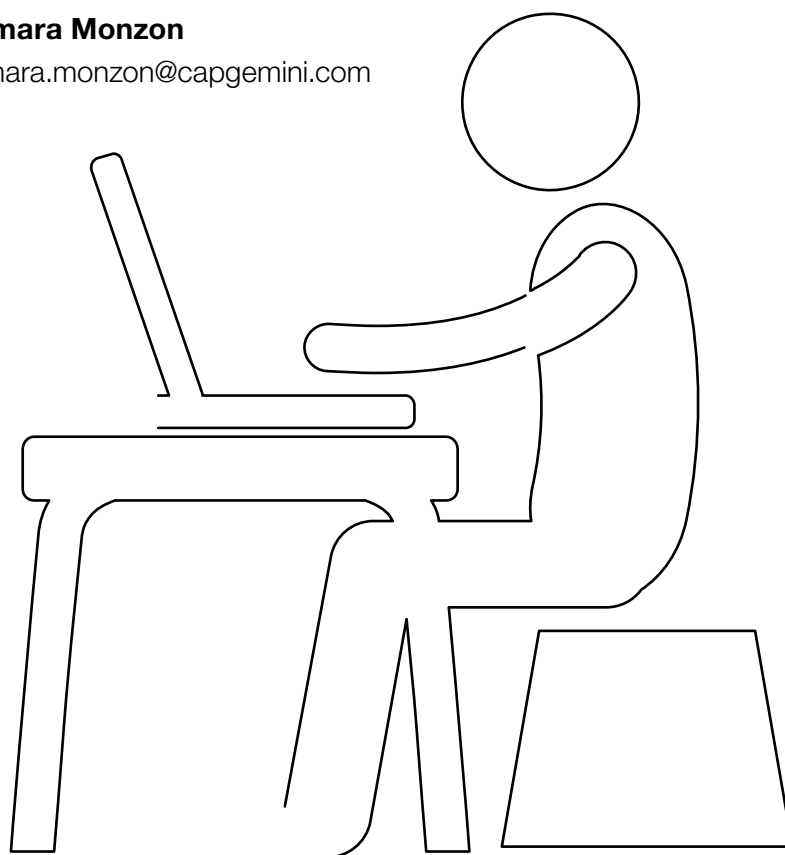
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