



「Conquering Complexity in Achieving AIFMD Compliance」

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I Executive summary

This paper is limited in its scope and purpose. As such, it is intended to present practical and actionable advice to (principally European) fund managers that will enable them to simplify and automate their compliance with certain key AIFMD requirements.

1.1 The AIFMD: scope, requirements and entities

The Alternative Investment Fund Managers Directive (AIFMD) [1] is the most important and complex regulatory process ever faced by the alternative investment industry in Europe. It is also the first and only European legislation to date that has intentionally targeted the alternative investment business. The critical milestones in the implementation of the AIFMD are shown in Exhibit 1: *The AIFMD time line: significant AIFMD dates* (page 6).

The primary targets for the Directive's rules and requirements are alternative investment funds (AIFs) and their managers (AIFMs).

There is a third entity that is unique to the design of the AIFMD: the depositary. In the AIFMD paradigm, the depositary is the custodian of the AIF assets and is liable for them.

A diagram of the relationships among these entities is shown in Exhibit 1.

As this paper is not intended as a comprehensive or definitive review of AIFMD rules and requirements, we will focus our discussion here on a few specific areas to which a software solution's features and capabilities can be directly applied, namely:

- Calculation of AuM

- Transparency to investors
- Segregation of tasks and responsibilities
- Miscellaneous risk management obligations
- Establishment of appropriate valuation procedures

1.2 Key AIFMD provisions—at a glance

In Exhibit 3 (page 9), the AIFMD Cube provides a map to the provisions and requirements of the Directive¹. This organized view is spread across three sides of the cube (i.e., AIFMD, AIFMD Conduct and Manager/Depositary) and should be read in a counter-clockwise direction, starting with the AIFMD panel. The AIFMD conduct panel (see Exhibit 4, page 11) should be seen as a set of drawers containing the requirements of the Directive. Verification of processes and procedures, as well as maintenance of their changes and auditability, is required.

1.3 Impact of AIFMD

The Directive will, when fully implemented, introduce a harmonized European regulatory regime to AIFMs. From early 2013 onward, all managers will need to be authorized, adhere to common transparency standards and operational requirements and utilize a new marketing paradigm. It will affect not only AIFMs but almost every participant in the European alternative investment business.

As AIFMs work out new operational strategies to meet requirements of the new Directive, many will seek assistance from third party administrators (TPAs) and technology service providers. Thus, this new

¹ See ESMA/2011/379 *ESMA's technical advice to the European Commission on possible implementing measures of the Alternative Investment Fund Managers Directive*. ESMA.



European investment landscape highlights the need for cost-efficient automated solutions.

1.4 How a software solution can streamline many AIFMD compliance requirements

For many AIFMD requirements, especially those that impose the heaviest data processing, reporting and communication burdens, a software solution has features and capabilities that can make compliance easier, faster and less resource intensive.

Exhibit 5 (page 13) shows the reference model containing features that apply to AIFMD compliance, examples of which will be explained in Chapter 4. These features include:

- CRM, fundraising, investor relations and the ability to embed the deal flow process, known as front office activities
- Fund transaction management (fund operations, valuations, notices), fund holding management (investment structure diagramming, payment fund/company operations) and portfolio management (cash flow monitoring, valuation), collectively known as middle office activities
- Accounting, financial statements and general ledger functionality, known as back office activities

1.5 Examples of how a technology solution speeds compliance for AIFMs

1.5.1 Calculation of AuM

The AIFMD requires AIFMs to establish procedures to monitor the total value of AuM for each of its AIFs (except for UCITS funds) on an ongoing basis.

A query builder tool makes AuM calculation and reporting easy to set up and run in a fully automated fashion, even if an AIFM manages several AIFs. A query builder is a

dynamic tool that queries data related to any object in the system to create ad hoc reports. Queries may contain a combination of static data and calculated data such as multiples, IRR and, of course, AuM. The data queried with a query builder can be exported to Excel®, used in dashboards, accessed via an Excel add-in and used by reports designed with a reporting tool. See Exhibit 6 (page 15) and Table 1 (page 14).

The capital call process is closely related to the calculation of AuM and another area in which a software system's features and capabilities can streamline compliance for AIFMs. The AIFMD requires AIFMs to ensure that AuM reflects capital calls and distributions (AIFMD Article 3, Level 2). A software system streamlines the management of capital call calculations and other fund operations in a flexible and user-friendly tabular form with standardized and customized views.

1.5.2 Transparency to investors

The transparency rules within the AIFMD center around the annual report that is required from every AIFM.

A software system can automate reporting with a large library of standard reports and a custom report builder, all of which integrate seamlessly with both Excel and Word®. When packaged with ILPA and EVCA formatted reports, AIFMs can be sure that they will also comply with AIFMD rules. See Exhibit 7: *Investment structure diagram* (page 16) for reporting on various instruments.

Also, document management capabilities can efficiently automate the scheduling, generation, versioning, validation, dissemination and retention of all the reporting required under the AIFMD. See Exhibit 8: *FrontInvest reporting capabilities* (page 17).

1.5.3 Segregation of tasks and responsibilities

In order to comply with the Directive, AIFMs must demonstrate separation of functions and procedures to regulators.

A workflow engine makes it easy to implement the four-eyes principle as a safeguard against conflicts of interest and violations of job segregation rules.

A workflow engine can create completely customized workflows without any programming simply by using buttons and drop-down menus. All steps in a workflow can be specified and defined, including draft, submission, approval and rejection. See Exhibit 9 (page 18), Exhibit 10 (page 19), Exhibit 11 (page 20) and Exhibit 12 (page 20).

1.5.4 Miscellaneous risk management obligations

Under the AIFMD, AIFMs can delegate certain functions to qualified third parties, particularly in the case of self-managed AIFs. These delegated functions, and the depositary requirement, involve inherent risk and, therefore, demand an unprecedented level of due diligence.

With this heightened focus on due diligence, the streamlining and process automation offered by a software solution can save time and resources while helping to ensure compliance with the Directive.

A due diligence module centralizes all the information necessary to prove that adequate due diligence was performed prior to any investment.

It documents deal flow for every investment both graphically and in formatted reports. See Exhibit 13 (page 21).

1.5.5 Establishment of appropriate valuation procedures

The AIFMD requires AIFMs to establish appropriate and consistent procedures for each AIF so that a proper and independent valuation of the assets of the AIF can be performed.

A software system has built-in features and capabilities that enable AIFMs to streamline the building of valuation policies and procedures and automate the valuation process for all instruments and funds. See Exhibit 14 (page 24), Exhibit 15 (page 25), Exhibit 16 (page 25) and Exhibit 17 (page 26).

There are two parts to the valuation process. The first is the Investee Portal, which allows managers to automate and standardize the retrieval of data from investee companies. The second part of the process involves taking the data submitted by the investee company and subjecting them to a valuation operation.

1.6 Benefits for end users

With a software solution, AIFMs can:

- Establish required policies and procedures easily and quickly with the workflow engine
- Streamline and automate reporting to investors and regulators using FrontInvest's pre-built reports and powerful query builder
- Quickly establish and automate procedures to monitor the total value of AuM on an ongoing basis. These procedures can ensure compliance with the requirements set forth in AIFMD Articles 2 and 3, Level 2

- Quickly retrieve and disseminate information on the identities of direct and indirect shareholders who have “qualifying holdings” and on the amounts of those holdings
- Automate reports to investors on remuneration

1.7 Conclusion

We believe this paper establishes the following:

- Many areas of AIFMD compliance place a great emphasis on the capture, manipulation, and dissemination of large amounts of complex data
- A software solution has features and capabilities ideally suited to streamlining and automating the process of achieving AIFMD compliance in key areas, including the following business activities:
 - Valuation
 - Risk management
 - Capital requirements
 - Transparency
 - Private equity/real estate (“PE/RE”) fund management
- When applied to calculation of AuM, as required by the Directive, a query builder, Excel add-in and report builder can quickly and easily automate compliance
- When applied to transparency requirements under the AIFMD, pre-built and customizable reports, as well as powerful dashboards, make compliance easy
- When applied to job segregation, conflict of interest and due diligence rules and requirements under the Directive, a powerful workflow engine makes it quick and easy to build and document policies and procedures
- When applied to the requirements under the Directive to establish proper valuation procedures, embedded Excel and pre-built Excel-based templates make calculations and reporting easy and reduce the entire valuation process to a few clicks

1.8 Standardizing communication: AltExchange

AltExchange, the new data standard for the alternative investment industry, offers a solution to the burden of data capture, processing and reporting imposed by the Directive.

For many years, firms have been spending considerable time and resources manually entering and reconciling information when these processes should be automated.

The AltExchange data standard enables fund managers to produce a single information pack for investors requesting data in either the AltExchange or ILPA format. AltExchange offers tools for GPs, fund of funds, fund administrators and other managers to efficiently produce the required data in the standard AltExchange data format.

Unique to the AltExchange data standard is the existence of a corresponding validation platform, built and supported by eFront. See Exhibit 18 (page 29).

The AltExchange data standard is a universal, open and evolving definition of data formats that simplify and streamline the sharing of information among fund managers, investors and other parties.

2 Introduction

2.1 Summary of AIFMD and similar regulations

The expansion of financial regulation is a fact of life for more and more markets, especially in the past decade and especially in North America and Europe, where the European Union has created a common economic and legal framework that crosses all the borders among its member nations. The latest pan-European regulation concerning financial markets is the Alternative Investment Fund Managers Directive (AIFMD), often referred to simply as the “Directive” [1]. The AIFMD is the latest in a series of broad directives applied to financial markets, including the Undertakings for Collective Investment in Transferable Securities (UCITS) and the Markets in Financial Instruments Directive (MiFID). AIFMD, which was largely inspired by these other legislative frameworks, expands on their efforts.

Similar legislation has recently been enacted in the United States, including the Dodd Frank Act, which seeks to reform the entire U.S. financial industry in one sweeping piece of legislation. A key part of Dodd Frank is the so-called Volcker, which limits the amount of bank ownership in hedge funds and private equity funds. The Foreign Account Tax Compliance Act (FATCA), enacted in 2010 as part of the Hiring Incentives to Restore Employment (HIRE) Act, has had a considerable impact upon the alternative investment business globally. FATCA demands that all foreign financial institutions, including alternative investment funds, identify and disclose their U.S. account

holders. This will require greatly increased levels of due diligence from everyone.

For the European alternative investment industry, the AIFMD is more expansive than these or any other preceding directives. This is also the first such directive deliberately aimed at the private equity industry. It touches every aspect of a fund manager’s business and puts a premium on information capture, management and communication.

2.2 Purpose, scope and limitations of this paper

While the scope of the AIFMD is broad and far-reaching, the scope and purpose of this paper is not. Our chief goal is to provide practical and actionable advice to (principally European) fund managers that will enable them to leverage their current investment to simplify and automate their compliance with certain key AIFMD requirements.

We do not intend to present this work as comprehensive and definitive analysis of the Directive. That is beyond our capabilities; we leave that to more knowledgeable and qualified lawyers and analysts.

Accordingly, we will present only a summary review of the AIFMD in order to provide a context for the reader and limit our discussion to those sections of it that FrontInvest² can address in a direct and practical manner.

² FrontInvest, an eFront product, is a powerful tool for conquering complexity in achieving AIFMD compliance.

3 AIFMD

3.1 AIFMD in brief

The Alternative Investment Fund Managers Directive (AIFMD) [1] is the most important and complex regulatory process ever faced by the alternative investment industry in Europe. It is also the first and only European legislation to date that has intentionally targeted the alternative investment business. In short, the Directive comprises a comprehensive and complex set of regulatory, operational and organizational requirements imposed by the EU on all alternative investment managers whose EU-based funds meet certain broad criteria [2]. First released in 2009 and revised several times since then, its purpose is to impose a uniform regulatory framework for managing alternative investment funds across the EU.

With such a broad scope, it is hard to overstate the Directive's impact on both the alternative investment business and the European economy as a whole.

The objectives of the Directive are as ambitious as its scope is broad. It seeks nothing less than to achieve a

single European market for alternative investment funds (AIFs) and provide common rules for the authorization and supervision of alternative investment fund managers (AIFMs) doing business within that market. As part of this new regulatory paradigm, the Directive also seeks to increase the transparency of AIFMs toward their investors and other stakeholders, provide tools for regulators to monitor systemic risk (thus helping to protect investors from unreasonable levels of risk) and increase the accountability of AIFMs who hold controlling stakes in companies.

As shown in Exhibit 1, Member States had only until July 22, 2013 to implement the Directive, so every existing AIFM needs to accelerate their compliance efforts, despite the difficulty and complexity of the task.

All new AIFMs must also comply with the directive starting July 22, 2013.

With so many requirements and regulations to deal with, managers can find compliance a time-consuming and difficult task. In later chapters, we will show you the steps you can take using FrontInvest to simplify and streamline AIFMD compliance on an ongoing basis.

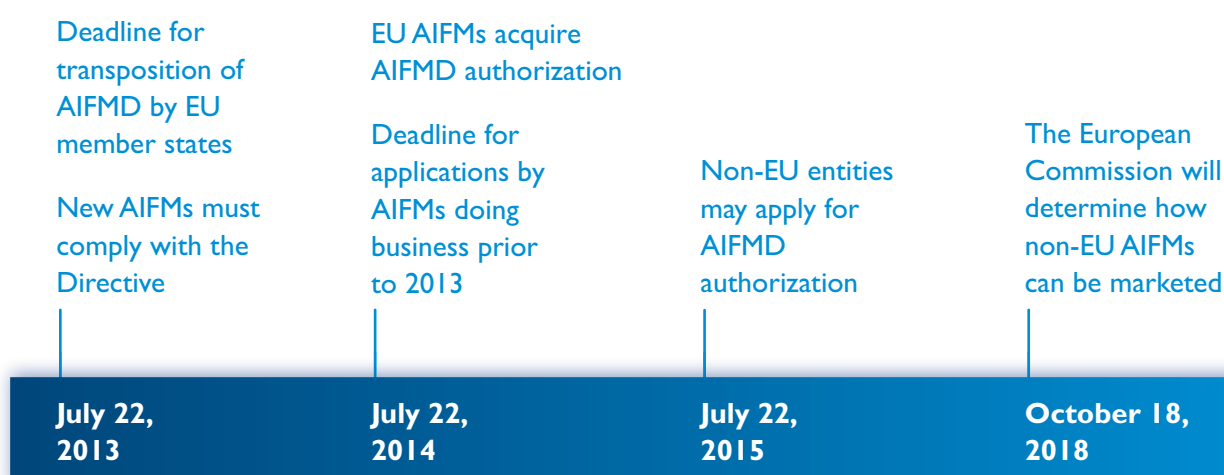


Exhibit 1: The AIFMD time line: significant AIFMD dates

3.2 AIFMD scope and affected entities

The primary targets for the Directive's rules and requirements are alternative investment funds (AIFs) and their managers (AIFMs). According to the Directive, an AIFM is any legal person whose regular business is managing one or more alternative investment funds (AIFs) and who is not covered by the Undertakings for Collective Investment in Transferable Securities (UCITS and the UCITS Directive).

To be classified as an AIFM under the Directive, a fund manager must conduct, at a minimum, both portfolio management and risk management. In addition, an AIFM may also provide administration, marketing and other activities related to the assets of the AIF.

The Directive limits AIFM classification to EU-based AIFMs managing EU or non-EU AIFs, non-EU AIFMs managing EU-based AIFs, and non-EU AIFMs marketing EU or non-EU AIFs.

There is a third entity that is unique to the design of the AIFMD: the depositary. In the AIFMD paradigm, the depositary is the custodian of the AIF assets and has liability for them. Every AIFM must appoint a single depositary for each AIF it manages. The depositary must be a credit institution, an investment firm or other entity permitted under the AIFM directive. They must have enough liquid assets (i.e., capital) on hand to cover all of the investments in the AIF. Thus, a depositary is 100 percent at risk for those investments.

Depositaries must also:

- Monitor the receipt of all investors' subscriptions and hold all financial instruments of the AIF in custody

- Ensure that AIF cash flows are properly monitored and that all subscription money is booked to the appropriate cash accounts
- Maintain the custody and segregation of financial instruments that can be physically delivered or registered in a financial instruments account
- Verify ownership of all other assets on the basis of information provided by the AIF, the AIFM or, where available, external sources

Exhibit 2 illustrates the relationships among the various entities regulated under the AIFMD. It is important to note that the AIFM may delegate specific administrative functions to third parties, or carry out those functions internally.

3.3 Compliance requirements for affected entities

As this whitepaper is not intended to be a comprehensive or definitive review of AIFMD rules and requirements, we will focus our discussion here on a few specific areas to which FrontInvest features and capabilities can be directly applied.

3.3.1 Transparency

Arguably, the most important rules and requirements concern transparency.

The Directive imposes additional and substantially more demanding (from a data-handling and communications standpoint) reporting and notification requirements. These requirements affect specific types of communication related to the management of AIFs: annual reports, disclosures to investors, private equity disclosure and notification and reporting to regulators.

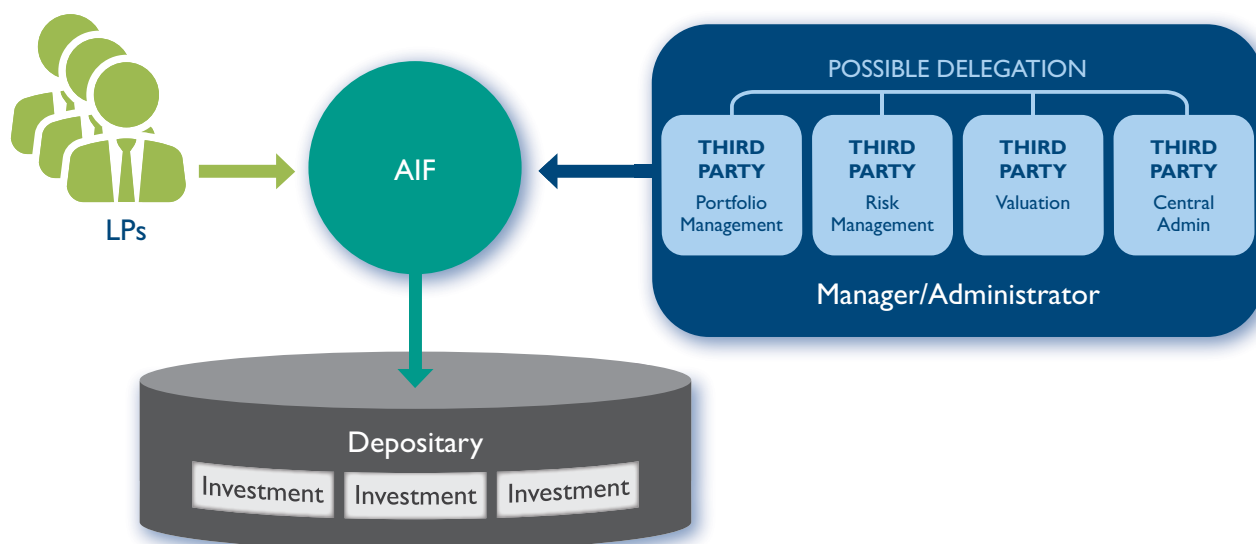


Exhibit 2: Relationships among AIFMD entities

We will see in later chapters exactly how FrontInvest can help you automate these forms of communication.

3.3.2 Valuation

Valuation is another key area to which FrontInvest can be applied. **For most managers, the specific requirement to have a functionally independent valuation process, with conflicts of interest mitigated, will mean they must completely re-evaluate their existing valuation process.**

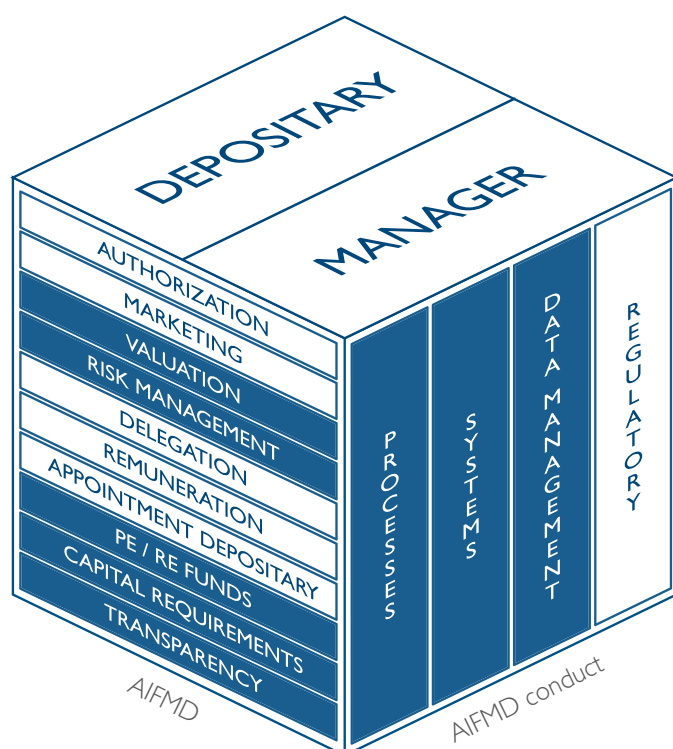
That valuation process should include a valuation for each asset class, separate valuations of assets and net asset values per fund share, as well as a policy specifying the obligations of every person involved in managing the fund.

These requirements can add a cost burden by forcing AIFMs to engage an external service to perform all valuations if they cannot show authorities that their internal process is robust and auditable.

3.3.3 Risk management

Every AIF should have a permanent risk management function appointed by the AIFM that shall implement effective risk management policies and procedures in order to provide senior management with regular updates on exposure of the AIF to all relevant and potentially detrimental risk. Stress tests are also required in order to assess the adequacy of both risk management policies and planned corrective actions.

The AIFMD also requires AIFMs to implement, document and demonstrate data and communication validation processes that will ensure proper data access restrictions and permissions. Workflows that implement new contact submission processes must be in place and documented so that staff access to internal data and bank accounts is appropriately restricted.



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Exhibit 3: The AIFMD cube

3.3.4 Capital requirements

The Directive applies capital requirements to the AIFM and defines capital as shared capital, retained profit and all adjustments. The initial capital requirement is set at a minimum of €125,000 at the time of authorization. The Directive also demands that assets be readily convertible to cash in the short term, with speculative positions.

3.3.5 Private equity and real estate funds


The Directive has specific rules regarding asset classes and portfolio management. **First, AIFMs must be able to produce for regulators a detailed representation of a fund's investment structure**, from the investor level all the way down to the portfolio or investee level.

Furthermore, future cash flows must be calculated and automated for each investee and consolidated in order to produce accurate valuation and financial figures, including forecasting and actual versus budget calculations. Regulators must also be shown how calculations are done in order to establish data integrity and capital call transparency.

3.4 Key AIFMD provisions at a glance: the AIFMD cube

In Exhibit 3, the AIFMD cube provides a map to the provisions and requirements of the Directive³. This organized view is spread across three sides of the cube (i.e., AIFMD, AIFMD conduct and manager/depositary) and should be read in a counter-clockwise direction, starting with the AIFMD

³ See ESMA/2011/379 ESMA's technical advice to the European Commission on possible implementing measures of the Alternative Investment Fund Managers Directive. ESMA.



panel. The AIFMD conduct panel should be seen as a set of drawers containing the requirements of the Directive. Verification of processes and procedures, as well as maintenance of their changes and auditability, is required.

3.4.1 Side 1: AIFMD areas of authority

The left panel (labeled AIFMD) represents the main clusters of regulatory requirements⁴ relating to all areas of AIFM business, including but not limited to those shown⁵. **This paper will address some of those requirements within the processes, systems and data management areas of conduct that can be implemented with FrontInvest: calculation of AuM, transparency, segregation of tasks and responsibilities, risk management and valuation⁶.**

Specific capital requirements will be addressed. For the PE/RE funds drawer, various functions will be described. See Chapter 4.

3.4.2 AIFMD conduct

The AIFMD conduct panel contains four subpanels: processes, systems, data management and regulatory. Regulatory is beyond the scope of this paper because this subject is more related to laws and legal definitions, which are region and country dependent.

3.4.2.1 Processes

The AIFM should take the necessary steps to ensure that written policies and procedures on the business processes employed for the AIF are established and can be maintained and adjusted. (e.g., investment decisions on behalf of the AIF are carried out in compliance with established objectives, segregation of roles and access rights.)

The AIFM should ensure that the processes and procedures are properly described and maintained, and are auditable. The following software may be considered for that purpose.

MAVIM's⁷ Rules software is a repository-based BPM tool with a strong Microsoft® look and feel and fully integrated with Microsoft Visio®. Rules extends Visio's modeling capabilities with advanced schema-generating intelligence, providing more support to business (process) analysts and modelers on any level. All defined process elements, actors and stakeholders become repository (Access®, SQL or Oracle®) objects. Rules manages the relationships among those objects, using a Zachman-like⁸ [3] method, in a highly intuitive manner by simply answering all relevant questions regarding who does what, when, with what, where and why, within an organization. See also paragraph 4.3.2, Exhibit 10.

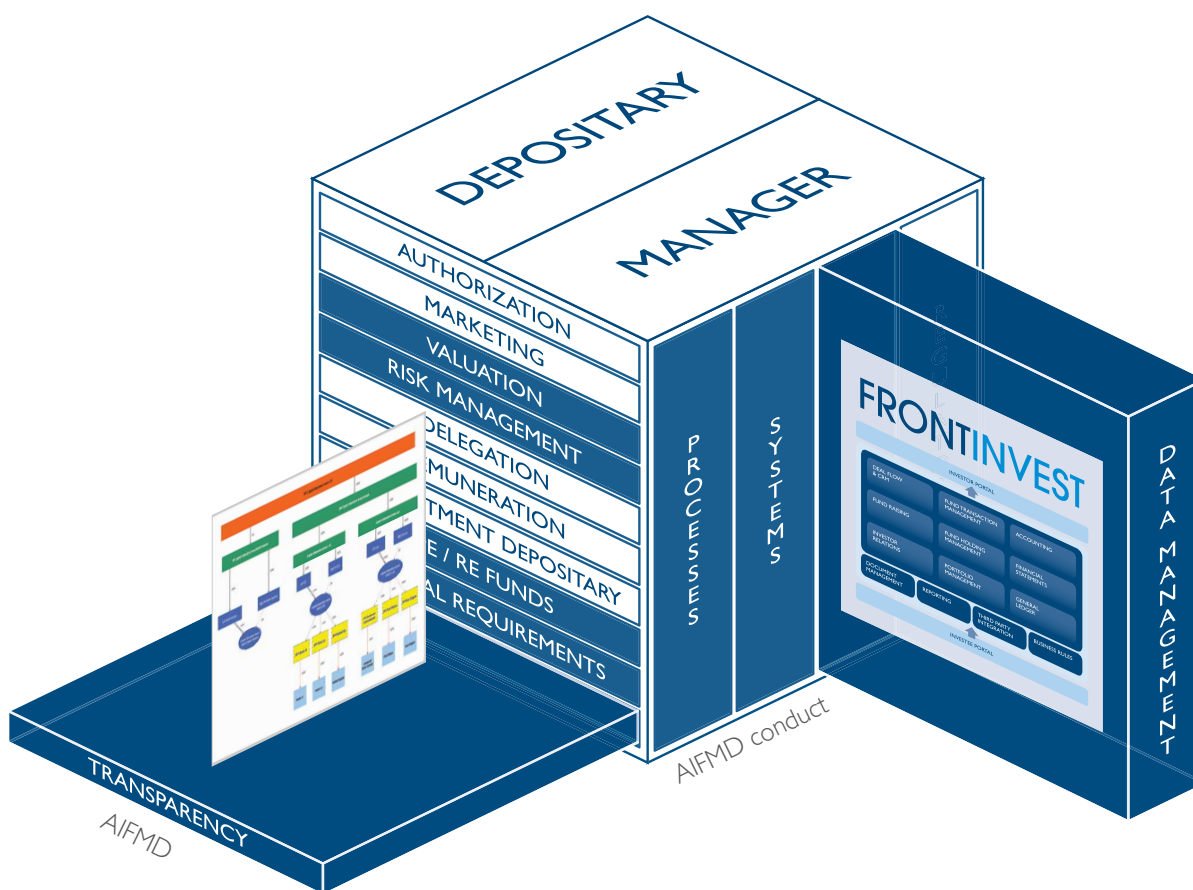
⁴ See ESMA/2011/379 *ESMA's technical advice to the European Commission on possible implementing measures of the Alternative Investment Fund Managers Directive*. ESMA.

⁵ See ESMA/2011/379 *ESMA's technical advice to the European Commission on possible implementing measures of the Alternative Investment Fund Managers Directive*. ESMA.

⁶ See chapter 4.

⁷ Rules is a software tool combining AO/IC and risk management and has the ability to publish web-enabled information to the internal organization for continuous monitoring and improvement.

⁸ The Zachman Framework is an Enterprise Architecture framework for enterprise architecture, which provides a formal and highly structured way of viewing and defining an enterprise.



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Exhibit 4: AIFMD conduct: FrontInvest in data management

3.4.2.2 Systems

The AIFM should, in particular, take the necessary steps to ensure that:

- The establishment of a contingency plan for disaster recovery, periodic testing of backup facilities and ongoing maintenance of the plan
- Reliance on software providers for ad hoc operational assistance with off-the-shelf systems is ensured

3.4.2.3 Data management


The definition of data management in this paper is consistent with that used by FrontInvest. The relationship between the implementation of data management under the AIFMD and the transparency requirements are depicted in Exhibit 4. The functionality and the features employed by

FrontInvest will be explained in more detail in Chapter 4.

3.4.3 The symbiosis of manager and depositary

As explained in Chapter 3.2, the depositary is a new entity and is appointed by the AIFM. We show the manager and the depositary together on the top of the cube to illustrate their unique symbiotic relationship. Although the relationship is mandated by the Directive, thus making both parties dependent upon one another; it is also mutually beneficial when both parties employ the same systems and methodologies.

The depositary is responsible for the proper monitoring of the AIF's cash flows and should be liable for the



losses suffered by the AIFM, the AIF and the investors.

The ESMA has made it clear in its final advice that a look-through approach should be taken to assets held by financial and/or legal structures controlled directly or indirectly by the AIF or the AIFM on behalf of the AIF.

3.5 The impact of the AIFMD

The Directive will, when fully implemented, introduce a harmonized European regulatory regime for AIFMs. From early 2013 onward, all managers will need to be authorized, adhere to common transparency standards and operational requirements and utilize a new marketing paradigm.

This makes AIFMD far more than a compliance exercise. It will alter the competitive landscape in a mercurial and uncertain marketplace. It will affect not only AIFMs but almost every participant in the European alternative investment business.

For the newly-burdened depositaries, the Directive means they will face greater liability and, consequently, higher operating expenses. Even though such costs may, in practice, be passed on to the AIFMs and their firms, in the short-term, it's likely that only the best-capitalized firms will fill that role.

As AIFMs work out new operational strategies to meet requirements of the new Directive, many will seek assistance from third party administrators (TPAs) and technology service providers. Such activities will present new and potentially profitable opportunities for TPAs and providers that can offer appropriately advanced capabilities.

Thus, this new European investment landscape highlights the need for cost-efficient automated solutions, many of which can already be found within FrontInvest.

4 FrontInvest as a compliance engine

4.1 How FrontInvest can help the AIFM in achieving compliance

For many AIFMD requirements, especially those that impose the heaviest data processing, reporting and communication burdens, FrontInvest already has features and capabilities that can make compliance easier, faster and less resource intensive.

This chapter attempts to provide a brief but practical guide to applying those capabilities and features to some of the more difficult AIFMD requirements, thereby streamlining your compliance efforts and allowing AIFMs to concentrate more on their core task: fund management.

Exhibit 5 shows the reference model containing features that apply to AIFMD compliance, examples of which will be explained later in this chapter. These features include:

- The front office (e.g., CRM, fundraising and the ability to embed the deal flow process)
- The middle office, comprising fund operations and portfolio management
- The back office, with cash management, accounting and GL functions

Both the Investee and Investor Portals act to reduce multiple keying-in of data and increase data integrity, as well as communication to investors. The FrontAnalytics solution complements the reference model.

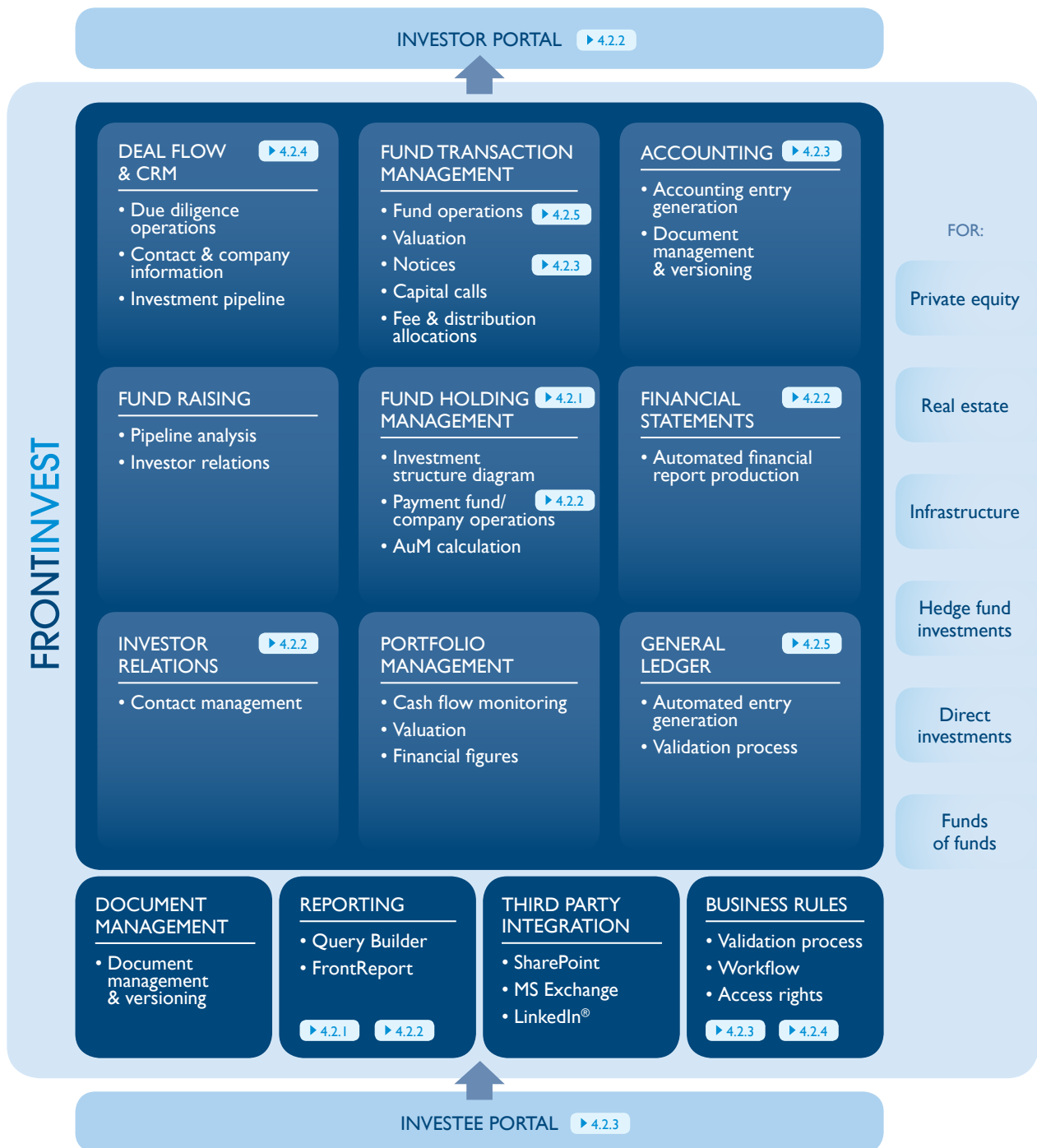


Exhibit 5: The FrontInvest reference model

Exhibit 5 also presents an overview of some of the most relevant features of FrontInvest that enable you to view and manipulate complex fund structures, as well as view and analyze fund data at any level of detail.

The following sections of this chapter provide practical guidance for applying FrontInvest features and capabilities to several key areas of the AIFMD, as illustrated in the reference model.

	AuM threshold	Reporting frequency	Reporting period	Report due date
AIFM reporting	< €100 million < €500 million unleveraged with 5-year lockup period	Annual	Jan–Dec	Last business day of January
	€100 million < AuM < €1 billion	Biannually	Jan–June Jul–Dec	Last business day of July and January
	> €1 billion	Quarterly	Jan–Mar	Last business day of April, July, October and January

Table 1: Alignment of AIFM reporting

As stated in Chapter 1, this paper is not intended to be the definitive resource for AIFMD compliance. Nor is it intended to be an exhaustive and comprehensive manual for streamlining AIFMD compliance using FrontInvest. Rather, we are presenting an introduction to FrontInvest as a compliance engine by way of these key examples.

4.2 Examples of how FrontInvest speeds compliance for AIFMs

4.2.1 Calculation of AuM

The AIFMD requires AIFMs to establish procedures to monitor the total value of AuM for each of its AIFs (except for UCITS funds) on an ongoing basis.

The calculation of AuM is relevant to several areas of the AIFMD. First, AuM is important for identifying AIFMs qualifying for simple registration rather than full authorization under the AIFMD, a determination made in accordance with established thresholds.

The comparison of AuM against the Directive's thresholds also determines reporting frequency (see Table 1).

Ongoing monitoring is required for all AIFs and if an AuM exceeds thresholds for more than three months, the AIFM must submit an application for authorization to its competent authority within 30 days. All AIFMs report annually for each unleveraged AIF that invests in non-listed companies and issuers in order to acquire control.

AuM is also necessary for the calculation of leverage, which must be reported to regulators and investors for the determination of liability risks⁹. The AIFM is responsible for maintaining sufficient financial resources adequate to its liability and operational risk profile.

Exhibit 6 displays a typical AuM monitoring graph generated automatically by FrontInvest.

The FrontInvest Query Builder tool makes AuM calculation and reporting easy to set up and run in a fully automated fashion, even if an AIFM manages several AIFs. Query Builder is a dynamic tool within FrontInvest that queries data related to any object in the system in order

⁹ Refer to the Directive [1] box 5 and box 7.

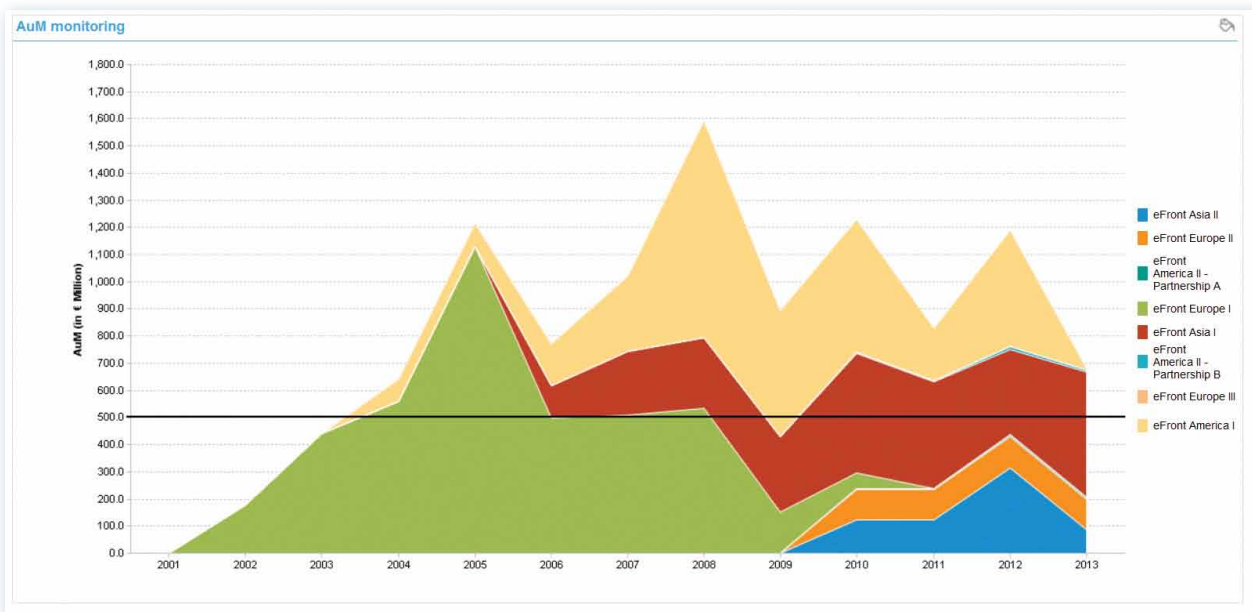


Exhibit 6: AuM monitoring in FrontInvest

to create ad hoc reports. Queries may contain a combination of static data and calculated data such as multiples, IRR and, of course, AuM. The data queried with the query builder can be exported to Excel, used in dashboards, accessed via the FrontExcel add-in and used by reports designed with FrontReport.

The capital call process is closely related to the calculation of AuM and is another area in which FrontInvest features and capabilities can streamline compliance for AIFMs. The AIFMD requires AIFMs to ensure that AuM reflects capital calls and distributions (AIFMD Article 3, Level 2). Implicit in this requirement is the exclusion of drawdown commitments from the AuM calculation.

FrontInvest streamlines the management of capital call calculations and other fund operations in a flexible and user-friendly tabular form with standardized and customizable views. Fund holdings are also managed in tabular form, with standardized views for fund positions. These

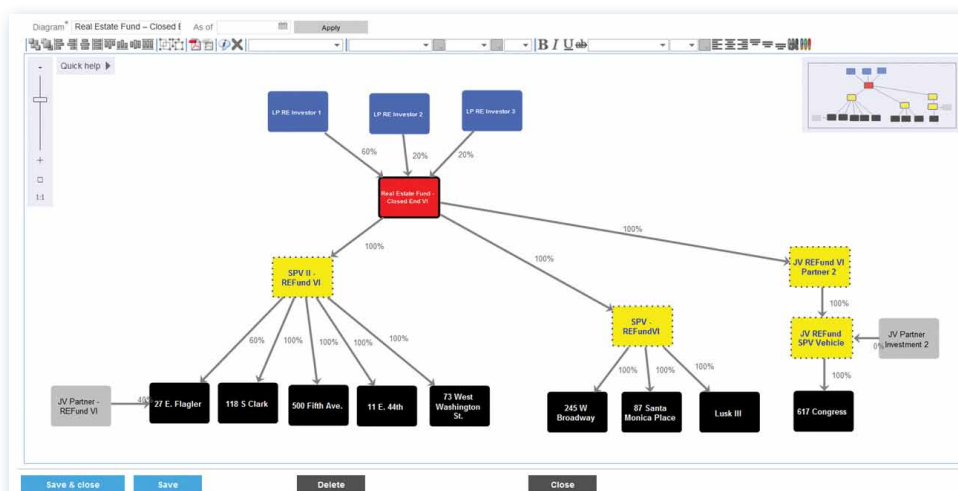
features enable the streamlining and automation of these and other key calculations related to fund management and fund operations.

Furthermore, the embedded Excel feature, which is available throughout the FrontInvest solution, enables managers to use Excel-based models directly within FrontInvest, which connects them directly to system-stored data, and its collaboration, versioning, auditing and security features. And, since interaction between Excel spreadsheets and FrontInvest is bi-directional, spreadsheets can be populated automatically.

4.2.2 Transparency to investors

The transparency rules within the AIFMD center around the annual report that is required from every AIFM. The first annual report is required within six months of an AIFM's authorization and must contain, at minimum, the following:

- A balance sheet or a statement of assets and liabilities



View complex structure

Capitalization table with ownership non-diluted and fully diluted

		# ND	% ND	# ND	% FD	Cost	Value
ARA III	Common Share	19,200,000	54.08%	19,200,000	44.14%	38,263,680.00	30,567,360
	Total	19,200,000	54.08%	19,200,000	44.14%	38,263,680.00	30,567,360
Circinus World I	Common Share	10,800,000	30.42%	10,800,000	24.83%	21,523,320.00	51,762,895
	Convertible bonds	0	0.00%	5,000,000	11.49%	16,437,291.17	13,460,756
	Total	10,800,000	30.42%	15,800,000	36.32%	37,960,611.17	65,223,651
Management	Common Share	3,000,000	8.45%	3,000,000	6.90%	3,000,000.00	3,000,000
	Warrants 2016	0	0.00%	2,000,000	4.60%	1,000,000.00	1,000,000
	Total	3,000,000	8.45%	5,000,000	11.49%	4,000,000.00	4,000,000
Global Bank	Structured loan	0	0.00%	0	0.00%	0.00	0
	Total	0	0.00%	0	0.00%	0.00	0
Circinus World	Common Share	2,500,000	7.04%	2,500,000	5.75%	4,982,250.00	3,980,125
	Convertible bonds	0	0.00%	1,000,000	2.30%	2,989,350.00	2,388,075
	Total	2,500,000	7.04%	3,500,000	8.05%	7,971,600.00	6,368,200
Total		35,500,000	100.00%	43,500,000	100.00%	88,195,891.17	106,159,211

Different view modes:
direct vs by transparency,
fund vs investor and
fund currency vs
investee currency

Investee	Curren.	% ND	% FD	Investments	Other Fees	Proceeds	Other Income	Total Value	Total gain/loss	Realized cost	Realized gain/loss	Current co
500 Fifth Ave.	USD	60.00%	60.00%	42,000,000				42,000,000	-	-	-	42,000,000
11 E. 44th	USD	60.00%	60.00%	72,000,000				72,000,000	-	-	-	72,000,000
617 Congress	USD	60.00%	60.00%	18,000,000				18,000,000	-	-	-	18,000,000
27 E. Flagler	USD	36.00%	36.00%	36,000,000				37,800,000	1,800,000	-	-	36,000,000
118 S. Clark	USD	60.00%	60.00%	42,000,000				42,000,000	-	-	-	42,000,000
Lusk III	USD	60.00%	60.00%	120,000,000				120,000,000	-	-	-	120,000,000
87 Santa Monica Place	USD	60.00%	60.00%	120,000,000				120,000,000	-	-	-	120,000,000
245 W Broadway	USD	60.00%	60.00%	60,000,000				60,000,000	-	-	-	60,000,000
				510,000,000	-	-	-	511,800,000	1,800,000	-	-	510,000,000

Exhibit 7: Investment structure diagram for reporting on various instruments

- An income and expenditure account for the financial year
- A report on the activities of the financial year; including inter alia
- A statement explaining how the AIF has invested its assets during the relevant period, in accordance with its published investment policy
- An overview of the AIF's portfolio and, where appropriate, the AIF's major investments
- Financial results
- A directors' and corporate governance report, depending on the legal structure of the AIF
- Any material changes in the information initially communicated to investors during the financial year covered by the report
- The total amount of remuneration paid by the AIFM to its staff in the financial year (split into fixed and variable remuneration), the number of beneficiaries and, where relevant, carried interest paid by the AIF

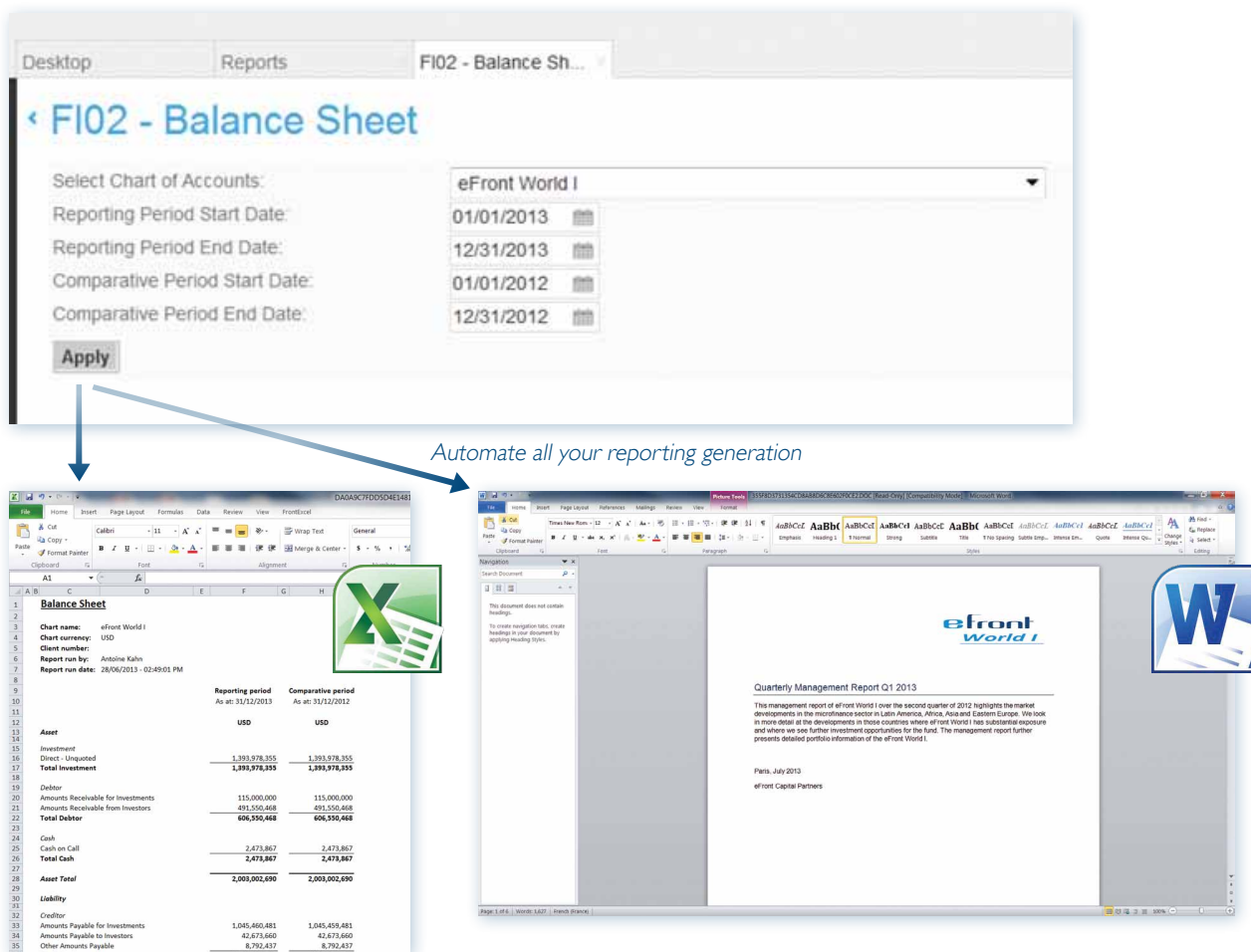


Exhibit 8: FrontInvest reporting capabilities

Clearly, these requirements highlight the need for automation. FrontInvest, with its advanced query and reporting capabilities, can automate the entire process.

Exhibit 8 shows how **FrontInvest** can automate reporting with its large library of standard reports and a custom report builder, all of which integrate seamlessly with both Excel and Word. And, since **FrontInvest** comes packaged with **ILPA** and **EVCA** formatted reports, AIFMs can be sure that they will also comply with AIFMD rules. ESMA recommendations, upon which the Directive's reporting rules are based, are very similar to ILPA standards, but less detailed.

FrontInvest enables one-click reports in Word, Excel and ILPA formats.

The FrontInvest document management capabilities can efficiently automate the scheduling, generation, versioning, validation, dissemination and retention of all the reporting required under the AIFMD. This automation eliminates duplication of effort, increases productivity and helps ensure data integrity across all business processes. In addition, FrontInvest's end-to-end integration ensures that as an AIFM's business processes move data from the front office, across the middle office and to the back-office accounting functions, the continuity of all functions, processes and activities can be maintained.

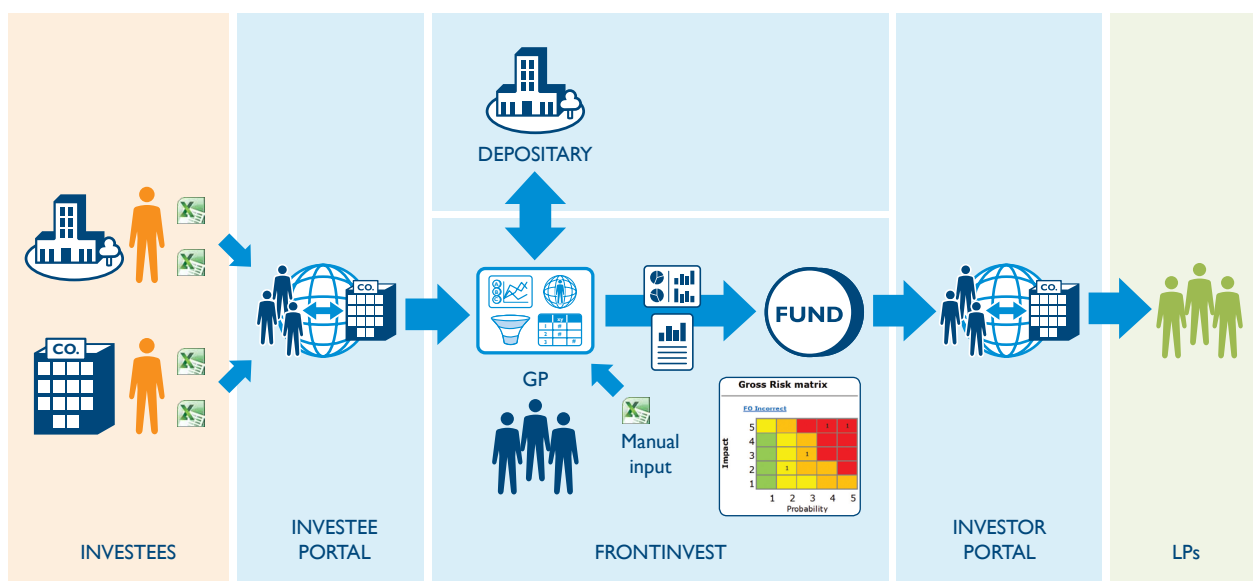


Exhibit 9: Job segregation workflow rules and conditions

4.2.3 Segregation of tasks and responsibilities

In order to comply with the Directive, AIFMs must demonstrate separation of functions and procedures to regulators. Regulators will review those procedures in accordance with the principle of proportionality. AIFMs must, in any event, be able to demonstrate that specific safeguards put in place to guard against conflicts of interest also allow for the independent performance of risk management activities and that the risk management process is consistently effective. These safeguards are further detailed in Article 43, Level 2 of the Directive.

In Exhibit 9, an entire chain of steps is depicted, from investee to reporting to investor. This exchange of information, comprising monitoring, administrating, analyzing and calculating, is carried out by various employees with different roles and responsibilities. **Job segregation is established and enforced through workflow rules by means of user profiles and access rights.**

For example, the four-eyes principle can be employed when distributing notices via the Investor Portal. In that case, an approval for a capital call is given by the authorized employee after checking the amount of and the reason for the fund operation (See Exhibit 9). All operations and transactions are traceable.

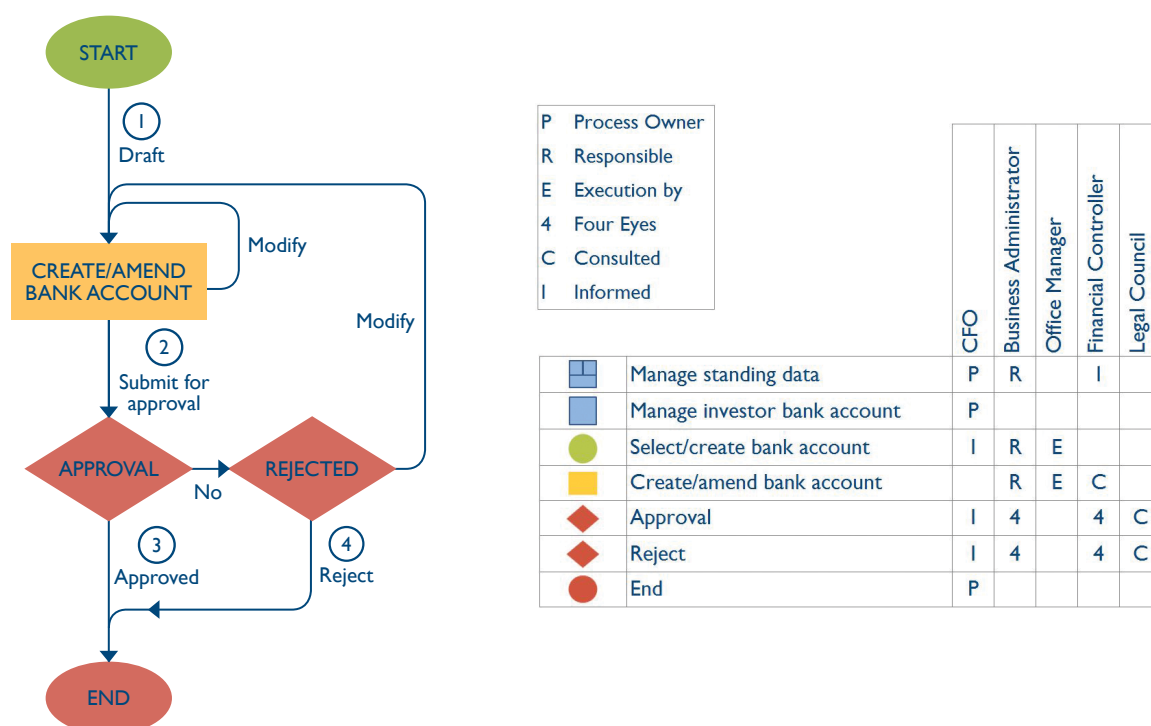


Exhibit 10: Design of workflow with job segregation: 4-eyes principle

Exhibit 10 illustrates a typical automated job segregation workflow diagram designed in FrontInvest. The required job segregation is described and displayed in the matrices beside the flow diagram. Next, the user builds the designed workflow in FrontInvest, which defines “steps” and “events” (i.e., transitions from one step to another). In Exhibit 11 the implementation of the design is presented.

The FrontInvest workflow engine can create completely customized workflows without any programming by selecting among buttons and drop-down menus. All steps in a workflow can be specified and defined, including draft, submission, approval and rejection. In the exhibit, the process steps are indicated with numbers and are associated with the events depicted in the exhibit. The user will see the buttons as defined (see Exhibit 12).

Workflow can be applied to any operation or entity in FrontInvest.

The FrontInvest workflow engine makes it easy to implement the four-eyes principle as a further safeguard against conflicts of interest and violations of job segregation rules. Designing a workflow in FrontInvest, including any workflow required under the AIFMD, is a simple matter of selecting the workflow engine from the main menu and then searching for and selecting an existing workflow for modification, or creating a new workflow from scratch.

Any workflow can be customized using the intuitive interface that enables the user to choose the steps and define a checklist of tasks and events for each step. Events can be further defined by specifying parameters such as priority and scheduling. The actions taken during each step of the workflow can

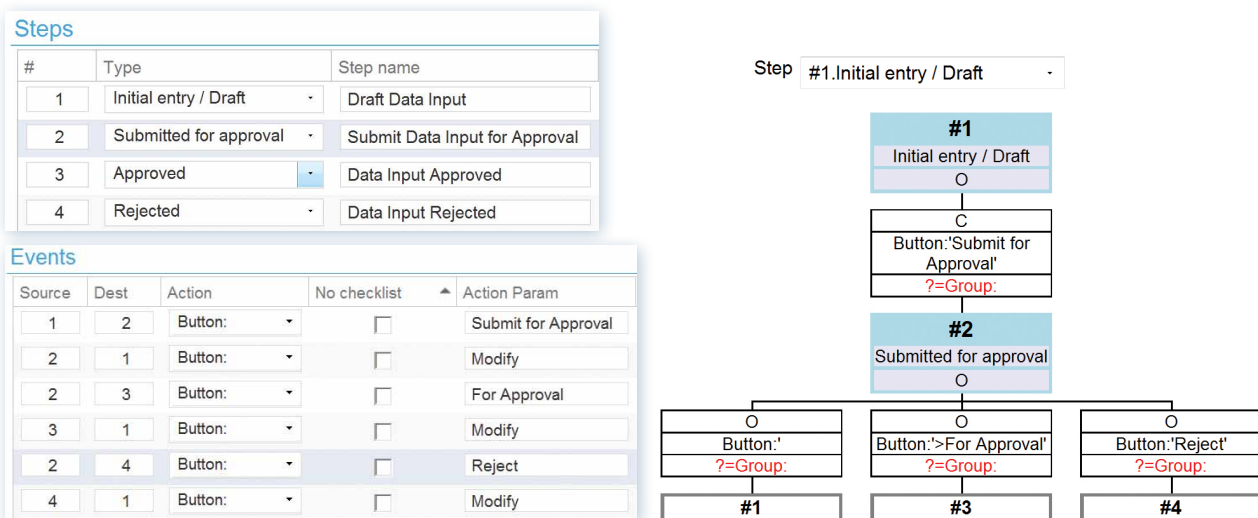


Exhibit 11: Set-up of the workflow in FrontInvest

Submit for Approval

Stage: Submitted for approval Workflow: V_Contacts_OLD

Partner in charge: VG_Contacts (group) Assisted By:

<Modify >For Approval Reject

Stage: Submitted for approval Workflow: V_Contacts_OLD

Partner in charge: TEST (group) Assisted By:

<Modify

Stage: Approved Workflow: V_Contacts_OLD

Partner in charge: VG_Contacts (group) Assisted By:

Exhibit 12: Implemented workflow in FrontInvest

be defined, as well as how those actions will appear in FrontInvest, such as an on-screen button. All of these modifications can be made via simple and intuitive on-screen drop-down menus, radio buttons and check-off boxes.

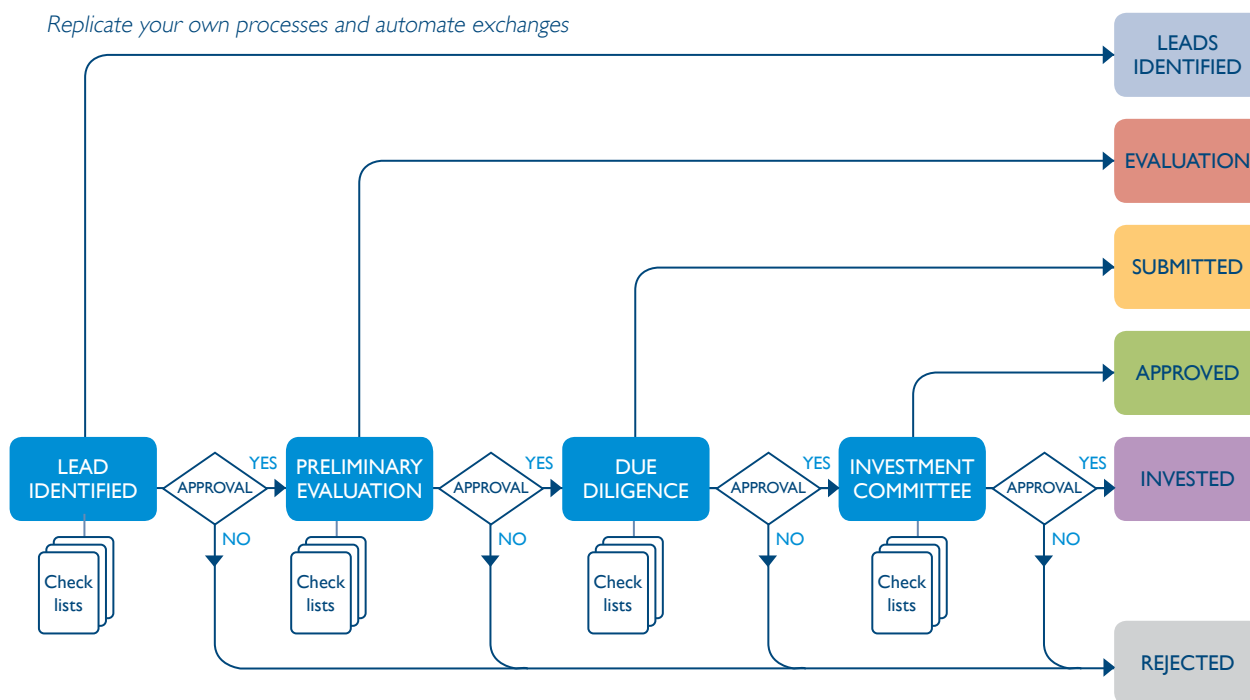
Most importantly, permissions can be defined at each step of a workflow and for each action. Drop-down menus allow a user to choose the ownership (e.g., owner, supervisor, etc.) and the group or individual next in line to complete a step or take an action, such as a validation or approval. This particular feature enables workflows

to prohibit self-approval of any or every step, task or action, which enforces the four-eyes principle as well as job segregation.

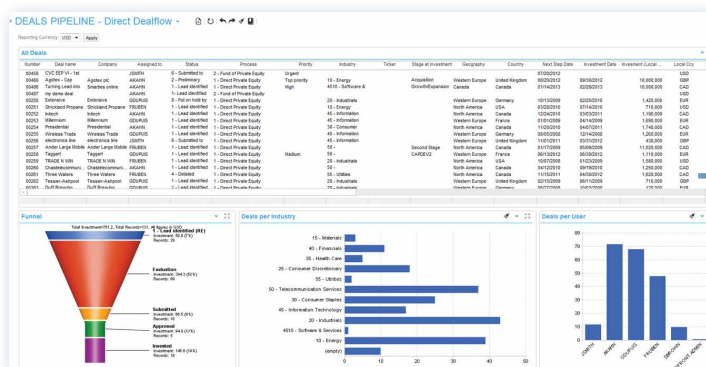
For the purpose of transparency, FrontInvest can monitor any and all processes and workflows, as well as generate progress reports at any stage.

Implementing workflows and business rules with FrontInvest can also help ensure data integrity and minimize the possibility of fraud.

Replicate your own processes and automate exchanges



From your Monday morning report...



...to a 360° investment memo

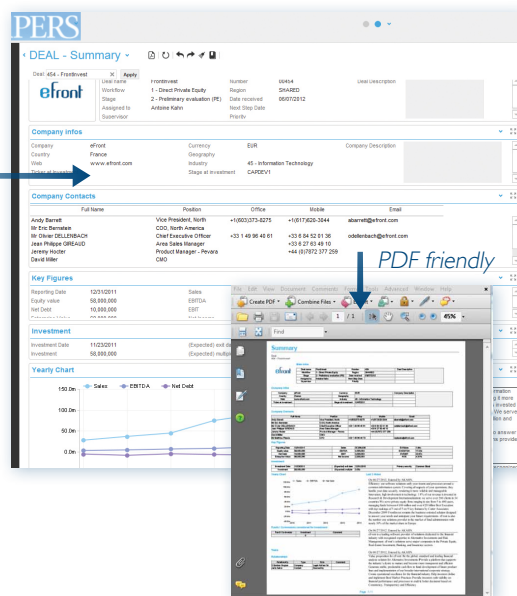


Exhibit 13: Due diligence process

4.2.4 Miscellaneous risk management obligations

A key goal of the AIFMD is to regulate risk in the alternative investment business and bring the management of risk in line with the rest of the financial services industry in the EU.

Under the AIFMD, AIFMs can delegate certain functions to qualified third

parties, particularly in the case of self-managed AIFs. Among these are core administrative functions, including portfolio management, risk management, valuation and/or central administration. These delegated functions, and the depositary requirement, involve inherent risk and, therefore, demand an unprecedented

level of due diligence, for which the Directive has an extensive set of specific requirements.

With this heightened focus on due diligence, the streamlining and process automation offered by FrontInvest can save time and resources while helping to ensure compliance with the Directive.

The typical FrontInvest due diligence process illustrated in Exhibit 13 shows how the tasks can be automated without the need for special solutions.

FrontInvest provides a great deal of value for AIFMs working to comply with the Directive. Managers can no longer rely solely on home-grown Excel-based processes. They need a data-driven process with multiple steps and validation check-lists at every step.

The FrontInvest Due Diligence module centralizes all the information necessary to prove that adequate due diligence was performed prior to any investment. It documents deal flow for every investment both graphically and in formatted reports.

Stress testing is another key risk management requirement under the AIFMD. The FrontInvest liquidity forecasting and stress testing features enable managers to define the model for a fund (a set of parameters that describe every key aspect of the fund), define stress scenarios, (the set of customized assumptions about fund performance, e.g., base, optimistic and pessimistic), and produce forecasts based on the results of those scenarios being played out.

4.2.5 Establishment of appropriate valuation procedures

Pursuant to AIFMD Article 19, Paragraph 1, AIFMs must establish appropriate and consistent valuation procedures for each AIF so that a proper and independent valuation of the AIFs' assets can be performed.

The AIFMD requires that AIFMs establish written valuation policies and procedures for each AIF covering all material aspects of the valuation process, valuation procedures and controls in respect of the relevant AIF¹⁰.

In order to comply with AIFMD requirements, a valuation process must adhere to the following minimal rules:

- Periodicity
 - Annually, at minimum, when units of a closed-ended fund are issued or redeemed
 - With "appropriate" frequency for open-ended funds
- Valuation of the assets
 - Valuation can be either done internally or by an external party.
 - If done internally, a model has to be built by type of asset/strategy and validated by someone not involved in the building of the model. The model should be subject to approval by the senior management. The validation process should be appropriately documented
 - If the valuation is done by the AIFM, it should be performed by a person independent of those managing the assets

¹⁰ See ESMA/2011/379 *ESMA's technical advice to the European Commission on possible implementing measures of the Alternative Investment Fund Managers Directive*. ESMA.

- Calculation of net asset value per unit or share
 - Subject to national law and/or fund rules
 - A third party can be appointed to perform the administration functions

FrontInvest has built-in features and capabilities that enable AIFMs to streamline the building of valuation policies and procedures and automate the valuation process for all instruments and funds.

As seen in Exhibit 14, FrontInvest's intuitive web-based interface makes all the necessary information easily accessible. Embedded Excel and pre-built Excel-based templates make calculations and reporting easy and reduce the entire valuation process to a few clicks.

There are two parts to the FrontInvest valuation process.

First is the Investee Portal, which allows managers to automate and standardize the retrieval of data from investee companies.

Exhibit 15 shows a typical Investee Portal screen in which data can be entered by the investee company, submitted with a single click and organized by accounting period. Not only does the Portal increase transparency, but it also helps ensure data integrity by eliminating the need to re-enter received figures.

Exhibit 16 shows a typical Investee Portal display of financial figures. The P&L statement and balance sheet can be submitted with a single click for validation by the AIFM according to a pre-established workflow.

The second part of the FrontInvest valuation process involves taking the data submitted by the investee company and applying them to a valuation operation. In defining the valuation operation, a manager can choose all the parameters needed for the valuation of any investment or instrument, including investee, date, valuation model, scenario type, metrics and even comparables. Exhibit 17 shows a typical valuation operation.

Portfolio Company Financial Figures - Columns

Columns

Column	Name
P&L	P&L
Sales	Sales
Gross Profit	GrossProfit
EBITDA	EBITDA
EBITA	EBITA
EBIT	EBIT
Other Income / (Costs)	OtherIncome
Exceptional Profits / (Losses)	ExceptionalProfits
Net Interest (Payable) / Receivable	NetIntExp
Annual Interest Expense	AnnualIntExp
Profit Before Taxation	ProfitBeforeTax...
PAT	PAT
EBIT (LTM)	TTMEBIT
EBITDA (LTM)	TTMEBITDA
Balance Sheet	BalanceSheet
Debtors	Debtors
Stock & WIP	Stock
Creditors	Creditors
Working Capital	WorkingCapital
(Overdraft) / Cash & Liquid Investments	CashLiquidInves...
Senior/Bank Debt	SeniorBank Debt
Other Senior Loans	OtherLoansRan...
Net Senior Debt	NetSeniorDebt
Loans & Preference Shares	LoansPreferenc...
Other Loans	OtherLoans

Column Field

Variable: PAT
Caption: PAT
Name: PAT
Alignment: Right
Format: #,##0.00;(#,##0.00)
Style: font bold
Lookup:
Description:
Private: ☐ Wrap Text: ☐
Growth Method:
Specific columns field:
Select a column: (General)
Style:
Formula:
R/O: ☐

Excel-based templates minimize the changes in an investee's existing reporting processes

Retrieve this data using FrontInvest embedded Excel capabilities

Operation - Valuation model

Download **Download (Zip)** **Upload**

File **Open in Excel**

Home **Insert** **Page Layout** **Formulas** **Data** **Review** **View**

Clipboard **Font** **Alignment** **Number** **Styles** **Cells** **Editing**

Valuation **Comparables** **Preferred Metrics**

Valuation

1. **EARNINGS/PERFORMANCE**

2. **MULTIPLE - CAPITALIQ**

Identity

Investee: Agotex plc
Operation: Valuation Q3 2012
Type: Valuation
Region: FO-PE
Date: 09/30/2012
Index:
Draft: No

Generate individual valuation for each instrument in a few clicks

Valuation Information

Valuation Model: Company Valuation model
Scenario Type: PL-BS-CF-KPI for GP (Quarterly)
Scenario date:
Preferred Metrics: EBITDA

Comparables

Name	Symbol	Reference date	EV	EBITDA	EV / EBITDA	Selected
Schlumberger	SLB	12/31/2012	103,654,369,02...	7,235,654,852.00	14.33x	<input checked="" type="checkbox"/>
Halliburton Company	HAL	12/31/2012	34,623,659,125...	4,753,262,536.00	7.28x	<input checked="" type="checkbox"/>

Enterprise Value

Metric: 2,341,130.00
Comparable multiple: 11.5338210840794
Marketability discount: 10.00%
Enterprise value: 27,002,174.55

Valuation by investment

Instrument	Class	Investor	Cost	Cash Accruals	Valuation in investor currency	Valuation Amount	Currency	Amount
Warrants 2016	Warrants	Management	1,000,000.00	0.00	403,004.88	GBP		
Structured loan	Loans	Global Bank	0.00	0.00	0.00	GBP		

Exhibit 14: How FrontInvest automates valuation

http://efront-0-00129/login.aspx?W=1536&H=864&CW=1516&CH=728&P=Win32&L=F&PROFILE=RTCF&BackL

efront - Investee Po... K efront Financial Soluti...

efront Home Portfolio Company... Thierry Smith

Portfolio Company Financial Figures

	Jan 2013			Dec 2012			Nov 2012			Oct 2012		
	Budget	Actual	Forecast	Budget	Actual	Forecast	Budget	Actual	Forecast	Budget	Actual	Forecast
P&L												
Sales	75,922.41	77,225.00		75,922.41	76,025.00		88,782.31	72,437.62		69,921.94	69,707.41	
Gross Profit	26,370.07	27,411.86		26,370.07	27,411.86		30,839.43	26,000.00		24,270.35	24,652.97	
EBITDA	9,692.45	8,125.00		9,692.45	8,125.00		12,461.78	7,739.48		8,352.58	7,465.74	
EBITA	8,515.94	7,021.00		8,515.94	7,021.00		11,286.87	6,714.70		7,191.09	6,456.44	
EBIT	8,515.94	6,489.21		8,515.94	6,489.21		11,286.87	6,246.05		7,191.09	6,010.63	
Other Income / (Costs)												
Exceptional Profits / (Losses)	(169.23)	(130.34)		(169.23)	(130.34)		(169.23)	(126.04)		(169.23)	(121.29)	
Net Interest (Payable) / Receivable	(3,630.73)	(4,090.99)		(3,630.73)	(4,090.99)		(3,630.73)	(3,946.30)		(3,630.73)	(3,803.66)	
Profit Before Taxation	4,715.98	2,268.67		4,715.98	2,268.67		7,486.90	2,177.92		3,391.13	2,107.67	
PAT	3,494.68	1,478.05		3,494.68	1,478.05		5,572.87	1,428.07		2,501.04	1,376.45	
Balance Sheet												
Debtors	3,024.80	1,004.87		3,024.80	1,004.87		2,121.02	972.45		2,017.24	934.30	
Stock & WIP	115,250.00	115,319.79		115,250.00	115,319.79		118,650.00	110,973.33		119,550.00	106,534.40	
Creditors	(105,994.93)	(129,915.09)		(105,994.93)	(129,915.09)		(100,051.38)	(125,420.84)		(89,668.20)	(121,179.56)	
Working Capital	12,279.87	(15,003.43)		12,279.87	(15,003.43)		20,719.64	(14,461.14)		31,899.05	(13,915.09)	
(Overdraft) / Cash & Liquid Investments	64,566.67	88,323.61		64,566.67	88,323.61		50,342.54	85,131.19		29,585.50	82,186.18	
Senior/Bank Debt	(317,465.53)	(346,297.87)		(317,465.53)	(346,297.87)		(318,615.81)	(332,445.95)		(319,766.09)	(319,915.91)	
Other Senior Loans	(114,067.00)	(126,118.40)		(114,067.00)	(126,118.40)		(113,384.19)	(121,267.69)		(112,701.37)	(116,790.71)	
Net Senior Debt	(366,965.86)	(379,768.15)		(366,965.86)	(379,768.15)		(381,657.45)	(367,221.42)		(402,881.96)	(353,948.36)	
Loans & Preference Shares	(174,270.62)	(167,256.89)		(174,270.62)	(167,256.89)		(172,830.70)	(161,341.05)		(171,390.78)	(154,887.41)	
Other Loans												
Other fixed income shares												
Total Liabilities	(628,371.79)	(630,653.49)		(628,371.79)	(630,653.49)		(640,903.50)	(609,233.00)		(659,968.12)	(586,279.47)	
Shareholders Funds / Net Assets	128,318.50	127,621.83		128,318.50	127,621.83		124,823.82	122,516.95		119,250.95	118,373.87	
Overdraft Limit + Undrawn Facilities	(50,000.00)	(55,748.19)		(50,000.00)	(55,748.19)		(50,000.00)	(53,949.66)		(50,000.00)	(51,833.33)	

Descending All Columns Collapse All

Save & close Save Download next 12 Months Download Upload Submit Figures Close

Exhibit I5: The eFront Investee Portal

http://efront-0-00129/login.aspx?W=1536&H=864&CW=1516&CH=728&P=Win32&L=F&PROFILE=RTCF&BackL

efront Desktop Submissions Agrofex plc Operation Search everywhere Antoine Kahn

Operation - General

Identity

Investee: Agrofex plc Region: FO-PE
 Operation: FY 2012 Date: 12/31/2012
 Type: Valuation Index: Draft: No

Valuation Information

Valuation Model: Company Valuation model Preferred Metrics: EBITDA
 Scenario Type: PL-BS-CF-KPI for GP (Quarterly)
 Scenario date:

Comparables

Name	Symbol	Reference date	EV	EBITDA	EV / EBITDA	Selected
Schlumberger	SLB	12/31/2012	103,654,369.02	7,235,654,852.00	14.33x	<input checked="" type="checkbox"/>
Halliburton Company	HAL	12/31/2012	34,623,656.125	4,753,262,536.00	7.28x	<input checked="" type="checkbox"/>

Enterprise Value

Metric: 3,432,158.00 Marketability discount: 10.00%
 Comparable multiple: 11.5338210840794 Enterprise value: 99,585,996.30

Valuation by investment

Instrument	Class	Investor	Cost	Cash Accruals	Valuation in investor currency	Value
Warrants 2016	Warrants	Management	1,000,000.00	0.00	715,899.89	GBP
Structured loan	Loans	Global Bank	0.00	0.00	0.00	GBP

Save & close Save Delete Close

Exhibit I6: Investee company data display

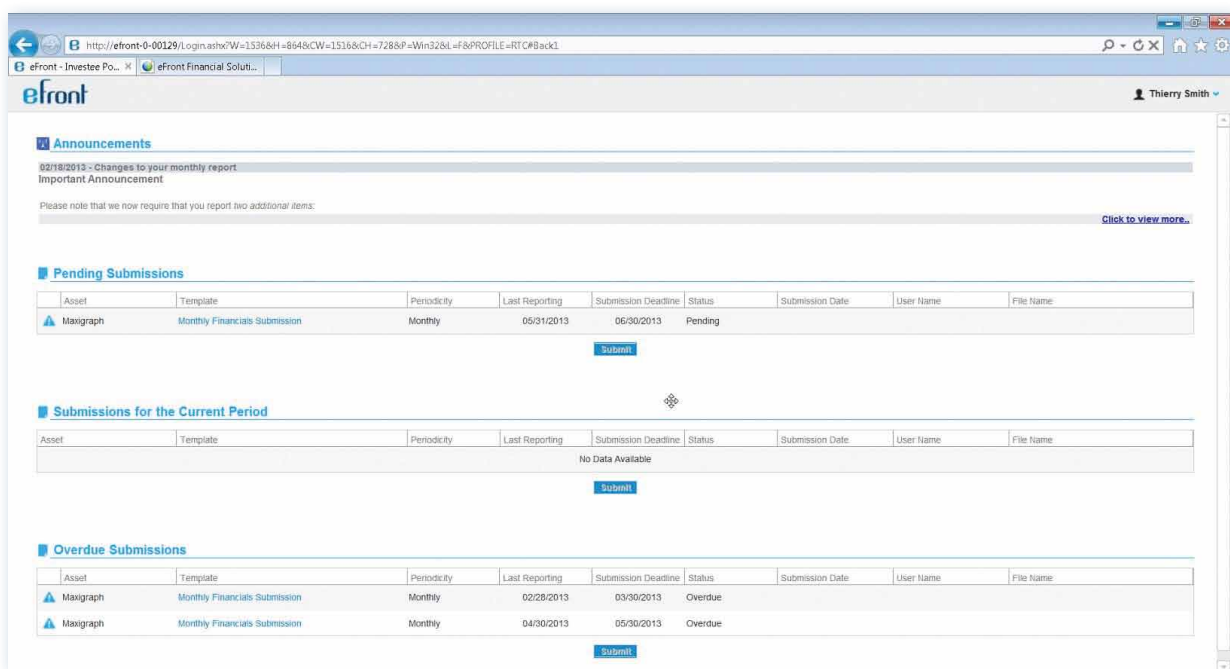


Exhibit 17: A FrontInvest valuation operation

4.3 Benefits for eFront customers

The benefits eFront customers gain from using FrontInvest as an AIFMD compliance engine are, in principle, the same as those gained by using FrontInvest for all of its other purposes: namely, the streamlining and automation of time-consuming and data-intensive tasks that eat up a firm's resources and divert staff from their valuable core duties.

For AIFMs faced with the impending burden of AIFMD compliance, being an eFront customer confers a degree of confidence and control they would not have otherwise.

With FrontInvest, AIFMs can:

- Establish required policies and procedures easily and quickly with the workflow engine
- Streamline and automate reporting to investors and regulators using FrontInvest's pre-built reports and powerful Query Builder
- Quickly establish and automate procedures to monitor the total value of AuM on an ongoing basis. These procedures can ensure compliance with the requirements set forth in Articles 2 and 3, Level 2
- Quickly retrieve and disseminate information on the identities of direct and indirect shareholders who have "qualifying holdings" and on the amounts of those holdings
- Automate reports to investors on remuneration

The following are some of the key benefits of FrontInvest, as applied to specific alternative investment business activities.

AuM/capital requirement:

FrontInvest can increase transparency while minimizing risk. AIFMs can also gain a better understanding of fund structures and investment allocations through standardized and customizable views. The investment strategies that were sold to investors can be easily documented in FrontInvest, ensuring compliance with those strategies.

Portfolio management:

FrontInvest enables fund stress simulations with customizable stress scenarios. AIFMs can also take advantage of **flexible portfolio modeling and monitoring capabilities**, as well as the ability to closely manage late closings by streamlining the calculation of before-and-after positions for all investors.

Financial statements and reporting capabilities:

Both the FrontReport module and its complete integration with Microsoft Office products, such as Word and Excel, provide AIFMs with flexible tools that can automate all of their reporting requirements while ensuring data integrity, transparency and compliance.

What's more, **Investment Café, eFront's web-based investor reporting system**, enables instant communication with investors around the globe.

Workflow, job segregation and the four-eyes principle:

With FrontInvest, managers can customize their own workflows and adapt them to the specific needs of the organization. Its ease of use empowers end-users by putting powerful processes and capabilities at their disposal without requiring

special IT or programming expertise. The workflow engine allows managers to lock down tasks, procedures and permissions throughout the workflow, enabling the detailed job segregation required to minimize risks and avoid conflicts of interest.

Risk management:

FrontInvest helps managers mitigate and manage risk by enabling them to gain a **better understanding of fund and portfolio performance**. This is a great advantage for managers as it allows them to quickly and easily adapt their investment strategies to changing conditions.

Valuation:

FrontInvest's valuation capabilities allow managers to internalize this process while ensuring data integrity and avoiding the cost of engaging an outside party.

The Investee Portal can accelerate the valuation process by automating and standardizing the timely submission of investee company data. The integration across all of the FrontInvest modules and capabilities ensures that the back office, middle office and front office all work with the same data.

AltExchange:

The AltExchange Alliance, of which eFront is a founding member, is working toward the **industry-wide standardization of data for improved communication and greater transparency**. When fully implemented, it will provide AIFMs with the ability to manage multiple relationships and high volumes of data with complete security and data integrity.

All AIFMs and fund administrators affected by the AIFMD should review their current software systems to make sure they have all the modules needed to conquer the complexity of AIFMD compliance.

5 Conclusion

At the beginning of this document, we stated that our purpose was to present practical; and actionable guidance to help GPs, and fund administrators use the features and capabilities of FrontInvest to simplify the process of complying with some of the more onerous sections of the AIFMD. We cautioned the reader that a comprehensive and definitive analysis of the Directive was beyond our expertise and, therefore, beyond the scope of this paper.

Accordingly, we limited our discussion to several areas of the Directive's rules and requirements to which FrontInvest can be most directly applied. These are by no means the only areas of AIFMD compliance that it can address. We sought to present an introduction to the use of FrontInvest as an AIFMD compliance engine.

The AIFMD imposes strict regulatory rules and controls over the alternative investment business in Europe and beyond

Consequently, we believe this paper establishes the following:

- Many areas of AIFMD compliance place great emphasis on the capture, manipulation and dissemination of large amounts of complex data
- FrontInvest has features and capabilities ideally suited to streamlining and automating the process of achieving AIFMD compliance in key areas, including but not limited to the following business activities:
 - Valuation
 - Risk management
 - Capital requirements
 - Transparency
 - PE/RE fund management

And the following areas of AIFMD conduct:

- Systems
- Processes
- Data management
- When applied to calculation of AuM, as required by the Directive, FrontInvest Query Builder, FrontInvest FrontExcel and FrontInvest FrontReport can quickly and easily automate compliance
- When applied to transparency requirements under the AIFMD, FrontInvest's pre-built and customizable reports and powerful dashboards make compliance easy
- When applied to job segregation, conflict of interest and due diligence rules and requirements under the Directive, FrontInvest's easy and powerful workflow engine makes building and documenting policies and procedures quick and easy
- When applied to the requirements under the Directive to establish proper valuation procedures, embedded Excel and pre-built Excel-based templates make calculations and reporting easy and reduce the entire valuation process to a few clicks

The data capture, processing and reporting requirements of the Directive will create a corresponding data exchange burden. For many years, firms have been spending considerable time and resources manually entering and reconciling information when these tasks ought to be automated. The new Directive will certainly exacerbate the problem. Fortunately, there is a solution: AltExchange, the new data standard for the alternative investment industry.

Member-owned alliance: Members include investors, general partners, software vendors and service providers. Members are required to have a contract with the AltExchange Validation Platform (AVP).

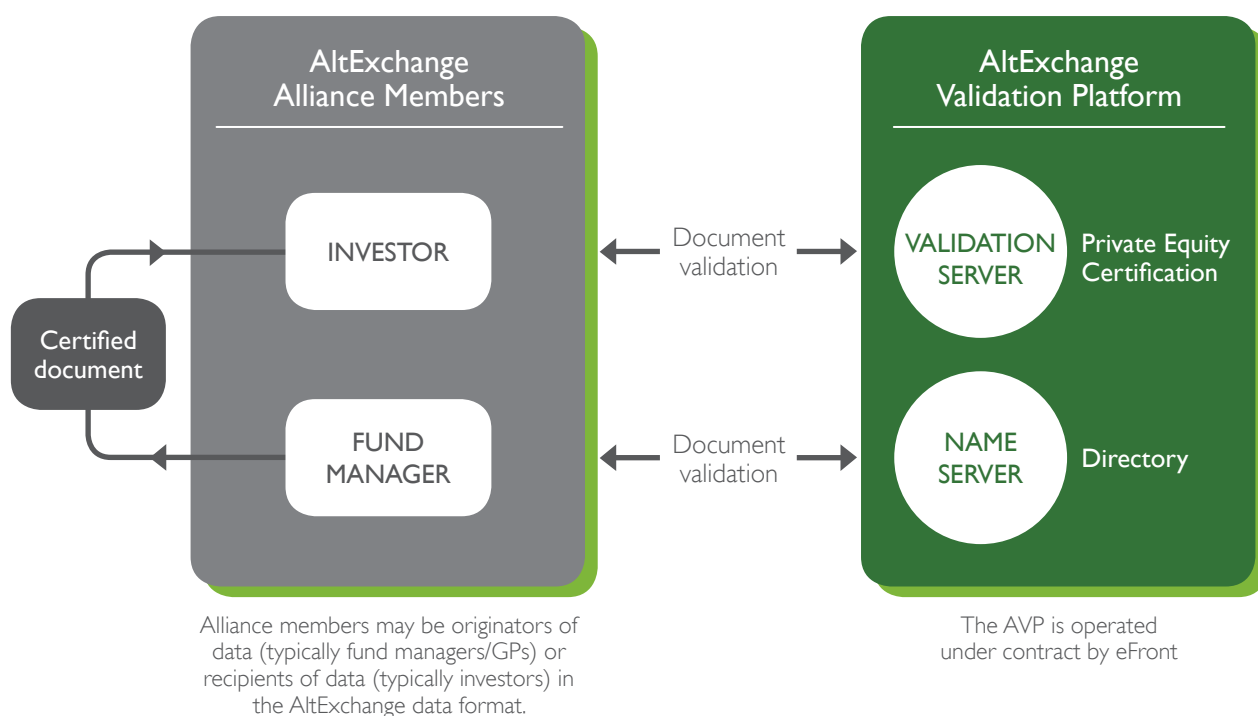


Exhibit 18: The AltExchange Alliance

The AltExchange data standard enables fund managers to produce a single information pack for investors requesting data in either the AltExchange or ILPA format. AltExchange offers tools for GPs, fund of funds, fund administrators and other managers to efficiently produce the required data in the format of the AltExchange data standard.


The AltExchange data standard is a universal, open and evolving definition of data formats that simplify and streamline the sharing of information among fund managers, investors and other parties.

The standard uses tailored XML taxonomies and spans many relevant data elements, including portfolio company financials, investor organizations and contacts, fund information, cash flows, capital accounts and more. The standard

will provide a universal means for organizations to provide and consume data supplied by another party. The open standard also allows data to be processed by applications already in widespread use in the industry, such as Excel and products offered by other vendors.

You can access the current version of the data standard definitions in the "AltExchange library" section of the AltExchange website (www.altexchange.com).

Unique to the AltExchange data standard is the existence of a corresponding validation platform, built and supported by eFront. Firms using the AltExchange standard can submit a data file to the validation engine of the platform for certification prior to distributing or consuming it. This ensures that when a file is received, it can be immediately used by the recipient.



As shown in Exhibit 18, data files generated by a fund manager are submitted to the Validation Platform's validation engine. The platform will check for data completeness, including verification that tagged elements are completed correctly. If successful, a file can be certified as complete and the platform will remit a validation certificate back to the fund manager. No data is stored on the AltExchange Validation Platform (AVP). Finally, the GP or fund manager can distribute the validated data file to the appropriate recipients. In order to access the validation platform's certification service, GPs will pay a nominal subscription fee.

AltExchange is a non-profit industry alliance for firms in private equity markets. Founded in April 2013 with numerous member organizations from around the globe, the Alliance defines, maintains and promotes a common data standard for the transfer of data among market participants. It is the private equity industry's first comprehensive standard for data formats and will transform the way general partners, limited partners, fund of funds and fund administrators gather, share, aggregate and analyze data. With AltExchange, they can receive data feeds in a uniform format, enabling them to create portfolio-level reports and analyses much more efficiently.

6 Acknowledgement

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Glossary

AIF	Alternative Investment Fund
AIFM	Alternative Investment Fund Manager
AIFMD	Directive 2011/61/EU of the European Parliament and of the Council of 8 June, 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010
AuM	Assets under Management
ESMA	European Securities and Markets Authority
UCITS	Undertakings for Collective Investment in Transferable Securities
UCITS Directive	Directive 2009/65/EC of the European Parliament and of the Council of 13 July, 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS) (recast)

About FLYzone B.V. Business Improvement Catalyst

Founded in 2003 and based in Zoetermeer, the Netherlands, FLYzone is a leading independent provider of consultancy services to private equity operations.

Dr. Ronald Plompen is Founder and Director of FLYzone and has over 15 years of experience in the financial services sector. Prior to establishing FLYzone, Ronald revamped a corporate venture fund as Managing Director. He holds a PhD in Natural Science and Information Theory. FLYzone provides advice and support services, from strategic advice and implementation to post operational support. Additional FLYzone services include due diligence and portfolio management.

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About eFront

eFront is a leading software provider of end-to-end solutions dedicated to the financial services industry with a recognized expertise in enterprise risk management and alternative investments. eFront's solutions serve more than 450 customers in 40 countries, including companies in the private equity, real estate investment, banking and insurance sectors. eFront's primary product suites, FrontInvest, Investment Café, Pevara, Front360 and FrontERM, offer tightly integrated solutions for streamlining the management of alternative investments and corporate risk. Founded in 1999, eFront services clients worldwide from offices in Asia, Europe, the Middle East and North America.

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About Mavim

Mavim is a leading software provider of BPM solutions. With more than 1,000 customers worldwide and more than 25,000 BPM professionals, Mavim serves its customers with its core product, Mavim Rules. The Rules software is used on a daily basis to improve and accelerate the changes going on in organizations. Change is necessary to improve operations and therefore to address challenges in all areas within organizations. Founded in the Netherlands in 1990, Mavim services clients worldwide from its office in Noordwijk, Netherlands.

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DISCLAIMER: This paper provides several practical examples of how to achieve AIFMD compliance. None of the information in this paper constitutes a recommendation for or against any action to be taken by the reader. The author of this report is not liable for the consequences of any decisions made on the basis of its content.