



Transaction Reporting IT Solutions Best Practices & Market Survey

September 2020

Summary

1 Addressing the challenges of transaction reporting

2 Benchmark highlights

3 Our value proposition

4 About Ailancy



Why transaction reporting has become such a challenge



Ever increasing complexity

- ▶ **Increasing scope of products and activities** to be reported: *securities, derivatives, securities financing transactions...* The **scope and volume of data** to be reported are increasing proportionally
 - ▶ *MiFID1 : 24 fields MiFID2: 65 fields MiFID review: ?*
 - ▶ *EMIR: 85 fields EMIR rewr.: 129 fields EMIR refit: ?*
 - ▶ *SFTR: 155 fields SFTR2: ?*
- ▶ **Increasing diversity of data to be reported** (F/O, clients, legal, collateral...) that implies sourcing the relevant data in **multiple upstream applications or databases**
- ▶ **Increasing complex eligibility rules** which requires to cross check multiple reference data



Ensuring compliance over time

- ▶ The most frequent reporting errors come from **decaying reporting mechanisms over time...**
 - *Missing reportings following the **update of a reporting mechanism component***
 - *Data quality erosion due to **out of sync data, change in reference data rules***
 - ***New business cases** that were not foreseen in the original reporting scenarios or in hard-coded eligibility rules*
- ▶ ... or **incorrect rules interpretation or errors from the onset** (ex mapping rules,)



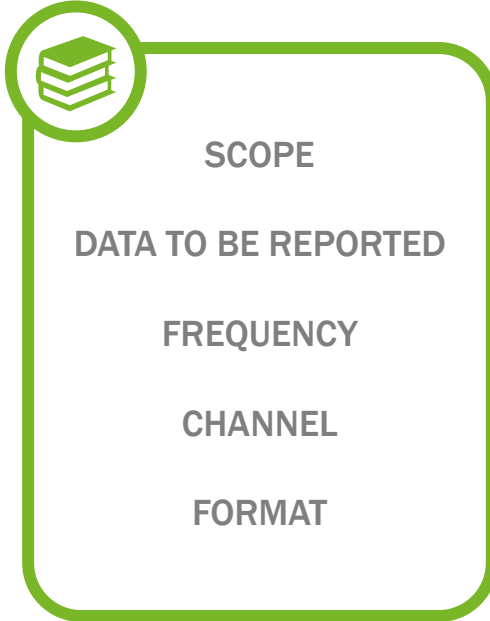
Stringent regulators with zero default requirement

- ▶ **Selected recent FCA fines**
 - ▶ *Tier 1 US bank (MiFID reporting): £ 34 million (2019)*
 - ▶ *Tier 1 US bank (EMIR reporting): £ 34 million (2017)*
 - ▶ *Tier 1 Swiss bank (MiFID reporting): £ 29 million (2019)*
 - ▶ *Tier 1 US bank (MiFID reporting): £ 13 million (2015)*



Complex data processing

A regulatory framework...



... to be translated into data processing

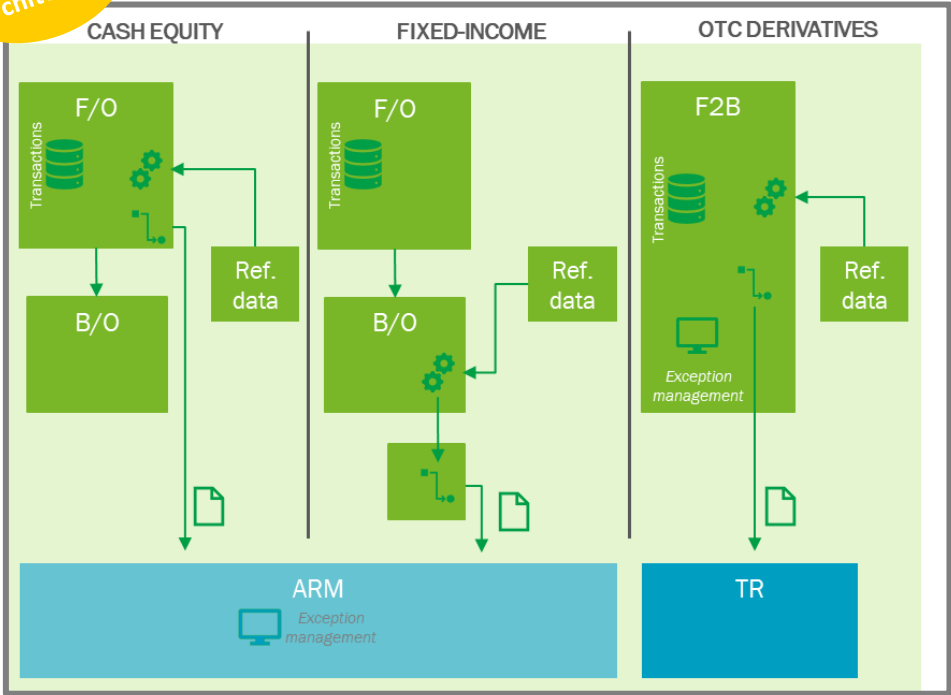


Transaction reportings involve setting up and maintaining complex data processing to achieve a reliable and robust mechanism

Inefficient duplication of reporting

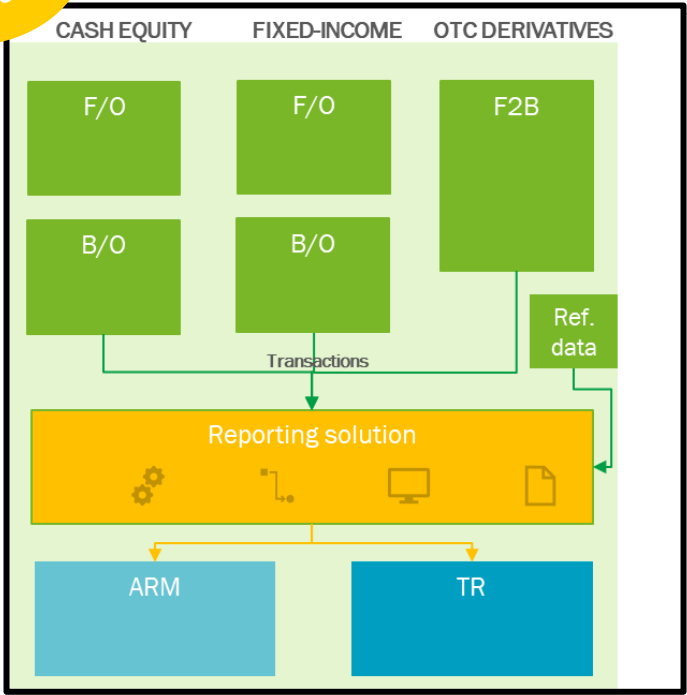
In a non optimized reporting architecture, distinct reporting mechanisms coexist replicating the existing silos. Additional business lines could include: ETD, securities lending, repo, commodities...

Typical architecture



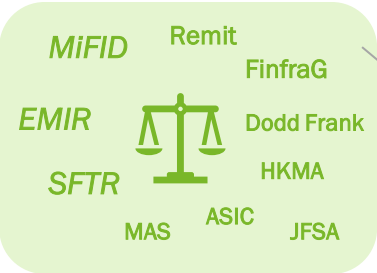
A single reporting solution acts as an efficient interface between the firm systems and the ARM/TR

Optimized architecture



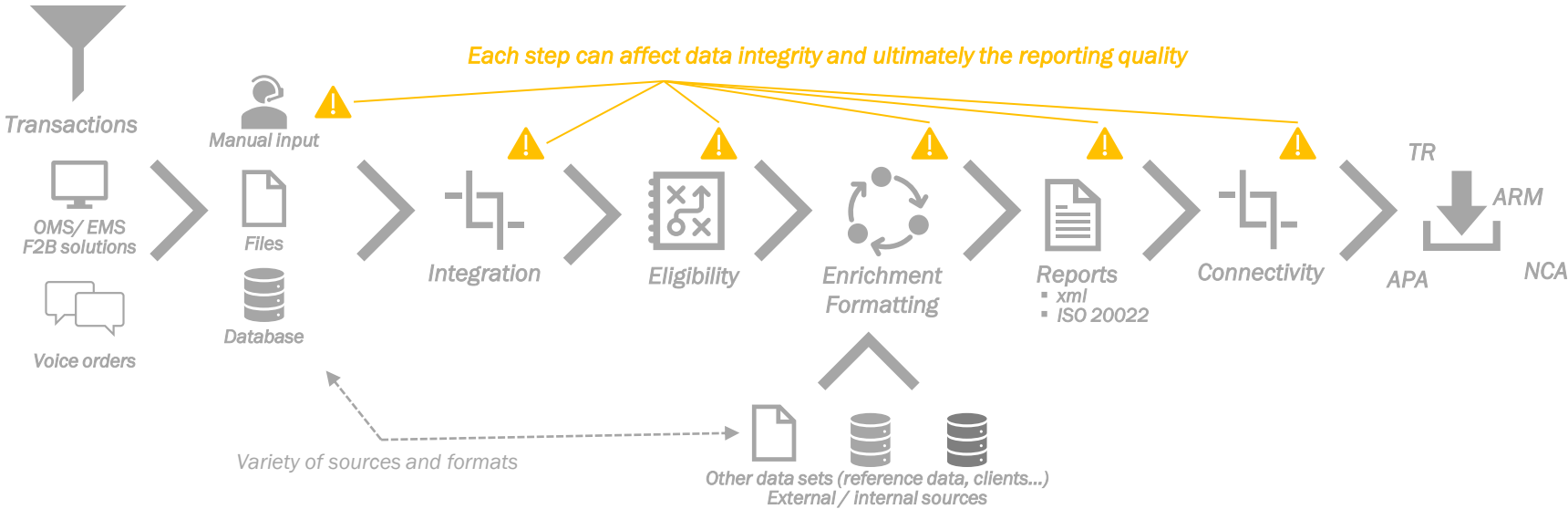
Main challenges for transaction reporting

Each step of the reporting process is facing specific challenges that can affect the overall reporting quality



⚠ Each reporting regime can have its own reporting mechanism

- Increasing number of reportings
- Increasing complexity of reportings (155 fields for SFTR)
- Increasing scrutiny of regulators
- Increasing level of fines



How an efficient reporting solution can help


An integrated reporting solution should cover each major step

MiFID

Remit

FinfraG

EMIR



Dodd Frank

SFTR


HKMA


MAS

ASIC


JFSA


Transactions

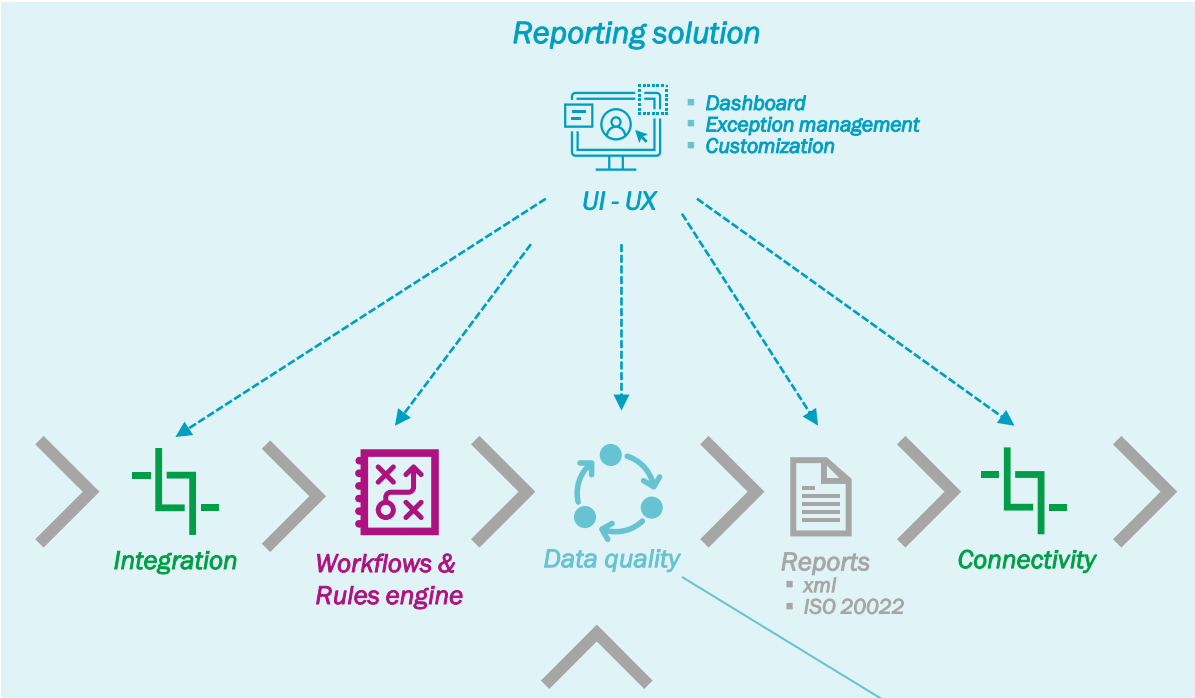

OMS/ EMS
F2B solutions





Voice orders

Manual input


Files


Database





Other data sets (reference data, clients...)
External / Internal sources

- Data enrichment
- Reconciliation
- Audit trail
- Data lineage



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About Ailancy

Vendors interviewed

Scope

- Ailancy interviewed eleven vendors for this study
- Demos were also organized to get first-hand *look and feel* of the solutions and their main features
- Main coverage : European markets and specifically : MiFID2, EMIR, SFTR, (Finfrag, Remit)
- Out of scope : TR, ARM, APA
 - *AQMetrics, Bloomberg, TRAX, and Unavista have an ARM license | Bloomberg and TRAX have an APA license*
 - *Unavista is a Trade Repository for EMIR and SFTR*



CME Group has announced that it will wind down its Abide Financial and NEX Regulatory Reporting (NRR) businesses by 30 November 2020

AXIOMSL[®]
PLATFORM FOR CHANGE

BearingPoint[®]

 **AQMETRICS**

Bloomberg 

CAPPI^{TECH}
REGULATION

 **CME Group**

CSS
Compliance Solutions Strategies

 **deltaconX**

 **IHS Markit[®]**

 **TRAction**

TRAX[®]
A MarketAxess Company

 **London**
Stock Exchange Group | **UnaVista**



Presentation

Methodology

- The benchmark was conducted by assessing five key areas
- *In addition to these five key areas, the interviews allowed to understand the pricing structure and market dynamics of the various vendors*



Regulatory coverage

- Regulations covered
- Expertise in regulation
- Follow-up of regulatory changes



Rules engine & Workflows

- Eligibility rules
- Customization of certain rules or workflows



Data quality

- Data enrichment
- Reconciliation, exhaustivity checks
- Analytics (KPI, AI ...)



Integration & Connectivity

- Aggregation of multiple sources
- (Native) integration with upstream tools
- Connectivity to TR



UX – UI

- User-friendly solution
- Dashboard
- Exception management





Each key area is detailed on a single page



Regulatory coverage



Rules engine & workflows



Data quality



Integration & connectivity



UX - UI

Main challenges associated with this area

Description of the core features that all (most) solutions offer

List of the solutions that offer interesting distinctive features

REGULATORY COVERAGE

Challenges

- The multiplication of regulations related to transaction reporting is an issue for large firms subject to most of those regulations.
- A solution offering a large coverage can be appealing for some firms willing to centralize their transaction reporting in one tool
- The ability to follow regulatory news and changes, and to advise clients on complex regulatory issues provides additional value

Core functions

- All editors cover MiFID and EMIR reporting
- Most editors also cover SFTR
- All editors are closely following up the regulations they cover. Most are actively engaged in relevant trade associations; some have dedicated user groups.

Differentiating criteria

- ✓ Coverage beyond MiFID, EMIR and SFTR
 - ✎ FinfraG
 - ✎ Remit
- ✓ Coverage beyond Europe
 - ✎ Americas: Dodd Frank, CSA...
 - ✎ APAC: MAS, HKMA, ASIC, JFSA...
- ✓ Coverage also including prudential reporting and leveraging on both types of reports (transaction and prudential reportings)
- ✓ Coverage includes Asset Management reportings
- ✓ Active engagement with trade associations, regulators
- ✓ Leveraging on transaction reporting to cover additional regulatory regimes:
 - ✎ MAR, Best execution

Distinctive features

Axiom
All-fraud
Extensive coverage
Prudential reporting

BearingPoint
Refund, M&A, USA, UKA
Prudential reporting

CAPPITECH
REGULATION
Large coverage
Best execution

CSS
All-fraud
Extension of coverage under way

deltaconX
Prudential, Remit
UKA

IHS Market
Coverage beyond Europe

TRAction
Best execution

UnaVista
Prudential, ASAC, UKA, HKMA
ISAPD, F&TS, D&A, D&A

Bloomberg
Extension of coverage under way

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Additional features that are not standard across solutions and bring added-value





REGULATORY COVERAGE

Challenges

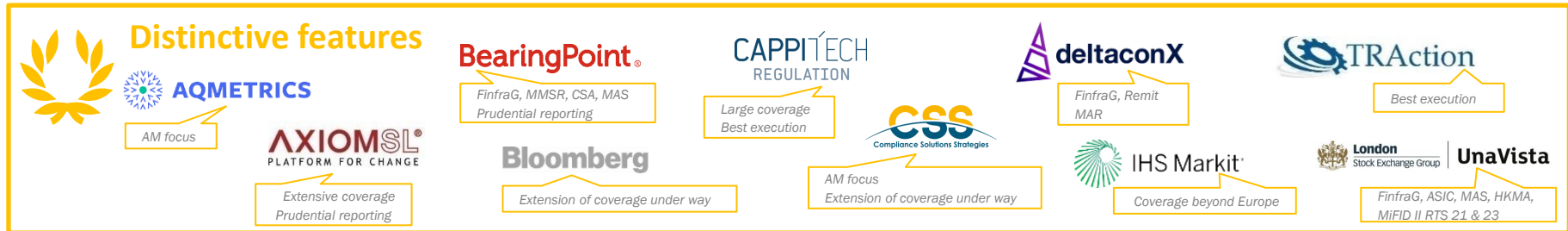
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RULES ENGINE & WORKFLOWS

Challenges

- Efficient eligibility rules to report relevant transactions
- Regarding rules engine and workflows, some solutions offer a great level of customization, configurable by the client or with the vendor. Depending on its needs and requirements, each firm will view customization as a must have or as unnecessary feature making the solution too complex to use and administer.

Core functions

- Eligibility rules
- Rules engine
- Workflows

Differentiating criteria

- ✓ Highly configurable solution vs standardized turnkey solution
- ✓ Rules engine: flexibility at the discretion of client (eg data mapping, automatic feeding of fields based on specific rules...)
- ✓ Workflows: possible customization by the client or by the vendor during onboarding or afterwards



Different approaches

AXIOMSL®
PLATFORM FOR CHANGE

Configurable workflows



deltaconX

Configurable rules engine



AQMETRICS



IHS Markit

BearingPoint®



Bloomberg

TRAX®
A MarketAxess Company



Compliance Solutions Strategies



CAPPI TECH
REGULATION

UnaVista

Rules engine / workflows configured by the vendor



Challenges

- Send complete and accurate reports to minimize exception management and comply with the reporting regimes
- When possible flag the transactions likely to be rejected
- Provide reconciliation with source data / reported data

Core functions

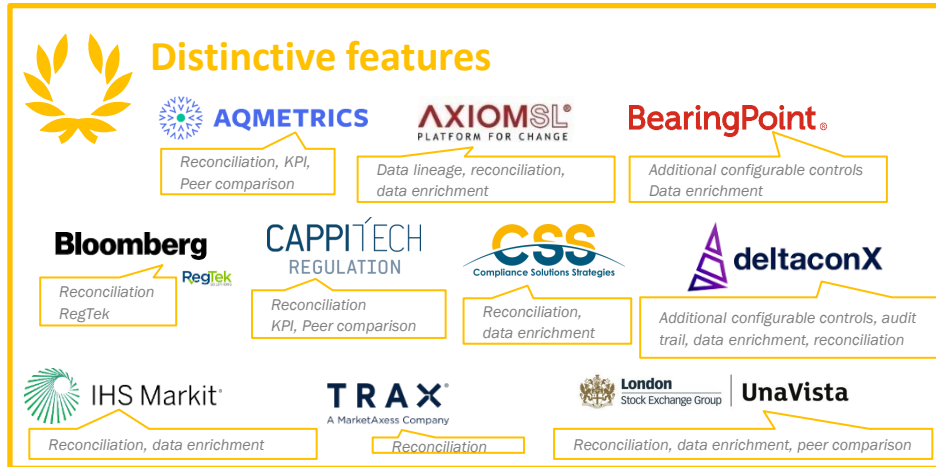
- Data enrichment
- Pre-validation of the data to be reported
- Reconciliation

Differentiating criteria

- ✓ Data enrichment beyond static data filled and maintained by clients
 - ✎ Connection to GLEIF, FIRDS data bases
 - ✎ Possibility to connect to data vendors
- ✓ Additional controls on top of replicating TR/ARM rules
 - ✎ Ability to configure validation parameters
 - ✎ Statistical analysis / AI to detect anomalies beforehand
- ✓ Audit trail / Data lineage
- ✓ Reconciliation
 - ✎ With source data
 - ✎ With TR/ARM data
 - ✎ With counterparties prior reporting
- ✓ Elaborated data model
- ✓ Analytics (production of KPI, AI...)
- ✓ Peer comparison

Additional tools used for quality check

- In addition to the solutions surveyed in this document, some editors offer complementary tools to monitor data quality
 - RegTek : now part of Bloomberg
 - Control Now
- Those tools offer interesting features for firms willing to get deeper into their reporting mechanism assessment





INTEGRATION & CONNECTIVITY

Challenges

- Smooth integration of transaction data into the solution
- Connections to TR and ARM to send reports
- Most vendors already have connectivity with major TR and can integrate data from different sources
- On-premise vs Cloud based (SaaS) solutions : clear trend for SaaS solutions

Differentiating criteria

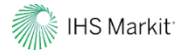
- ✓ Native integration with some upstream solutions (PMS/OMS/EMS/F2B solutions)
- ✓ Large coverage of TR
- ✓ Possibility to use bespoke file formats
- ✓ On-premise implementation possible

Core functions

- Input using proprietary file formats via SFTP
- Connection to databases
- Connections to TR

Cloud only (SaaS)

All vendors offer SaaS implementation. Very few still offer on-premise implementation as well.



Cloud (SaaS) & on-premise



Distinctive features



Largest choice of TR



Integration with Bloomberg tool (AIM/TOM)



Fully automated with Simcorp



Fully integrated to Simcorp (Dimension) and Finastra (Summit, Kondor, Opics)





UX - UI

Challenges

- Most solutions offer modern intuitive UI
- A dashboard typically allows to filter information, customize widgets and directly drilldown into specific dataset
- Possibility to correct data directly from the solution

Core functions

- Dashboard
- Exception management

Differentiating criteria

- ✓ Ability to correct data
 - ↳ 4 eyes validation
- ✓ Possibility to obfuscate certain data



Best in class

AXIOMSL
PLATFORM FOR CHANGE

CAPPI TECH
REGULATION

CSS
Compliance Solutions Strategies

deltaconX




















IHS Markit

TRAX
A MarketAxess Company

Modern UI



SUMMARY

Vendors	REGULATORY COVERAGE	WORKFLOWS & RULES ENGINE	DATA QUALITY	INTEGRATION & CONNECTIVITY	UX - UI
 AQM METRICS					
 AXIOMSL PLATFORM FOR CHANGE					
 BearingPoint					
 Bloomberg					
 CAPPI TECH REGULATION					
 CSS Compliance Solutions Strategies					
 deltaconX					
 IHS Markit					
 TRAction					
 TRAX A MarketAxess Company					
 UnaVista					



The solution includes distinctive features



The solution covers standard expectations



The solution does not entirely cover standard expectations

COST & ONBOARDING



✓ Onboarding



Typical range for onboarding costs
Costs depend on complexity

▶ Run



Typical range for a yearly licence
Most vendors have a cap on number of transactions reported and apply a degressive fee above this cap

- Cost per reporting regime
- Cost can vary depending on reporting regime



SaaS



Typical timeframe
Actual timeframe depends on complexity of the project

On-premise



Typical timeframe
Actual timeframe depends on complexity of the project

- Implementation timeframe in months for each reporting regime
- Projects typically include a discovery – planning phase before the implementation



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Our value proposition



Vendor selection – RFI / RFP

Definition of a short list, drafting of RFI-RFP, ranking methodology, recommendation



Implementation of new reportings

Regulatory analysis, data sourcing, reporting mechanism definition, UAT, implementation of monitoring and control system



Audit / Optimization

Mechanism audit (systems, control, organization), completeness control, data quality control, reporting mechanism optimization



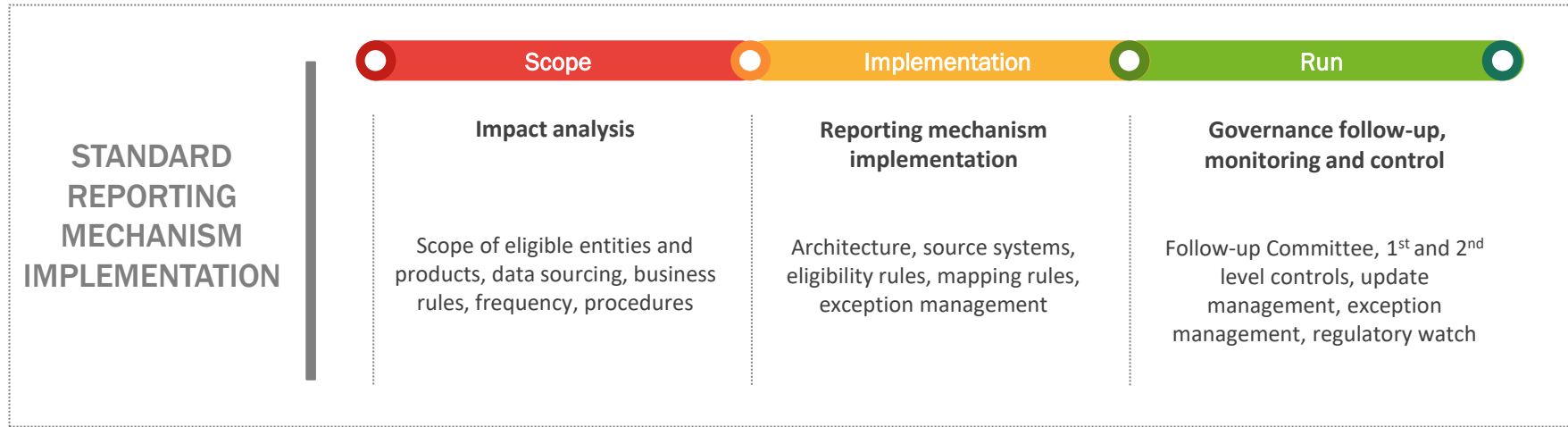
Remediation plan

Root cause analysis, complete screening of the reporting mechanism (data lineage), definition of corrective actions



A structured approach to implement and follow-up transaction reportings (1/2)

Transaction reporting should be implemented as a robust mechanism ensuring quality and consistency over time



Long term view

**Implementing a reporting infrastructure is not the end of the journey
An efficient reporting mechanism should ensure reporting quality and robustness over time**

A structured approach to implement and follow-up transaction reportings (2/2)

Once the reporting mechanism in place, a review of the organization and of the controls is necessary to prevent quality to decay over time

STANDARD QUALITY INSURANCE APPROACH FOR REPORTING MECHANISM IN PRODUCTION

1

COMPLETENESS

Ensure that, over a defined period, all the eligible transactions were reported



Implementation of reconciliation processes

2

QUALITY

Ensure that the reported data are accurate on the basis of the data collected and the regulatory requirements



Check a relevant sample of transactions (UAT approach)

3

MECHANISM

Ensure that the whole mechanism (systems, controls, organisation) implemented delivers a robust reporting in line with regulatory requirements over time



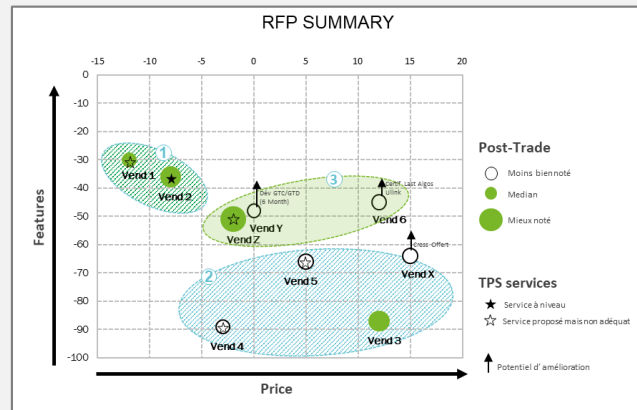
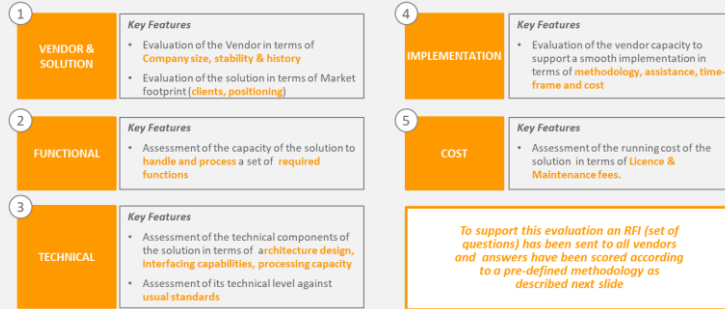
Audit / Risk matrix approach

**Key
takeaway**

Make sure that the reporting mechanism in place guarantees a reliable reporting addressing the regulators' requirements

A structured approach to manage RFI / RFP processes

- ▶ The vendor in charge of your reporting is a key element of your reporting mechanism
- ▶ Selecting the best vendor according to your needs and budget requires an efficient methodology



1. WEIGHTING OF COMPONENTS AND QUESTIONS

A. Weighting of components:
The RFP is composed of 5 components. The components being of different importance and relevance, their contribution to the global evaluation is different.

To each component is attributed a weight.

Ex.:

Components	Weight
Vendor and solution	10%
Functional requirements	40%
Technical requirements	20%
Project implementation	10%
Total Solution cost	20%

B. Weighting of questions:
Each component is composed by a set of questions, also being of different importance and relevance. To each question is attributed a weight / an importance.

Ex.:

Weight	Type of need
+4	Must have
+2	Standard
+1	Nice to have

2. QUESTIONS SCORING

For each component, the answers provided by the vendors for each questions are quoted according to following rule:
Ex.:

Mark	Answer's evaluation
+2	Beyond expectations
+1	Standard
-2	Below expectations

The evaluation of an answer is obtained by multiplying the weight of the question by its mark:

$$\begin{array}{c} \text{Mark} \\ \times \\ \text{Weight} \\ = \\ \text{Question scoring} \end{array}$$

3. GLOBAL SCORING

A. Scoring by topics:
The components are composed of different topics. For example, the Functional requirements component is composed of 7 topics: Reference data, Processing, Trade management... A mark by topic is obtained by summing all the "Question scoring" of the answers included in it.

$$\sum \text{Question scoring} = \text{Topic scoring}$$

B. Scoring by components:
The mark of an appendix is obtained by summing all the "Question scoring" of the answers included in it.

$$\sum \text{Question scoring} = \text{Component scoring}$$

C. Global scoring:
The global vendor mark is obtained by summing all components' scoring combined by their weight.

$$\sum (\text{Component scoring} \times \text{Weight}) = \text{Global scoring}$$



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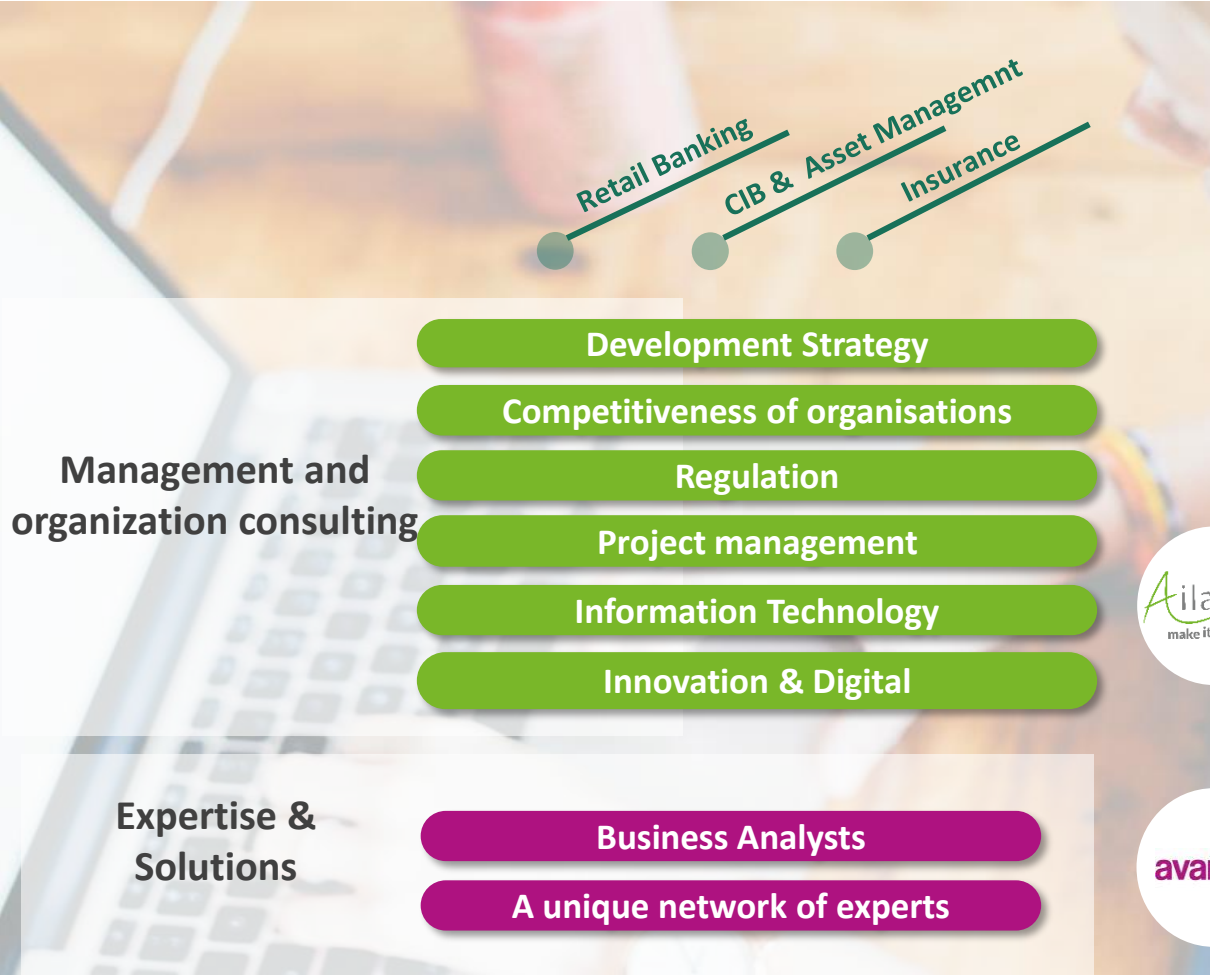
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4 **About Ailancy**



Ailancy: an independent consulting firm dedicated to financial services



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