



DAMA Conference

Do We Need a Chief Data Officer

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The data landscape within banking is complex and has developed over time

The requirements for data ownership, quality, sourcing and protection are unclear and as a result:

- Data quality problems are not addressed at the source but rather are fixed downstream by the users of the data
- The same data is maintained in multiple systems by a large number of FTE
- There isn't a complete customer or product view in any one repository

The consequences are:

- Loss of Revenue—slowness to develop new businesses, caps on existing business, inefficient capital usage and suboptimal business decisions
- Regulatory and Legal Risk—fines & warnings, liability or reputational damage
- Increased Costs—due to quality issues, manual processes, duplication, inefficient maintenance, and extra licensing and storage

Past efforts to address data issues have had limited success due to:

- Lack of a champion and senior management support, particularly in the business
- Did not address the fundamental issue of data ownership and accountability
- Siloed approaches that were limited in scope to specific data, products, technical or functional issues
- Approached data as a "back office" problem, not a business problem that requires a front-to-back solution

Sample of common quotes

"Many business critical data are not in the databases or not fit for use"

"Customer data is a major obstacle. We have a terrible view of corporate commercial customers"

"Not enough data is captured at points of decisions. We need near real time feeds"

"Connectivity is our biggest issue—data is not accessible from each place where our people are"

"There is no single customer view that is 100% accurate"

"We need a consistent analytical data model across the bank"

"Training of a new analyst takes six months to one year to be proficient"

"We have lots of work-arounds to understand how to match data"

"Data quality is a mixed bag—there is no oversight to build trust"

"We have lots of issues because there are no experts any more. It is really painful"

"70–80% of time is spent on data pulls, 20% on analysis"

"There is no comprehensive documentation or data dictionary—we need a well versed help desk that knows the data"

"Institutional knowledge lies with people who have been here a long time"

"This is the most fractured data i have seen in over three companies i have worked for"

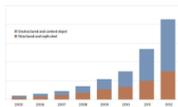
"We have challenges with performance of the data warehouse platform because it is a shared service"

So who is responsible for this?

Managing the information value chain will enable clients to realize full information value potential

Utilize information developments

Higher volume ...



... higher variety ...



GPS, speech, text, QR codes, pictures, videos, links, etc.

... higher velocity



Batch → near-time → real-time

... higher veracity



Unknown → 80/20 → 100% trusted

Information value chain



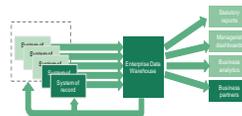
Digitalize, filter, transmit

Transform, ensure quality, store, propagate

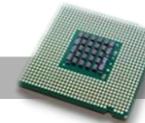
Discovery, visualization, advanced analytics

Decision support, simulation, algorithmic decisions

Process integration process automation



Analysis tools



CRM, ERP, MES, etc.

To realize value potential

<client> effectiveness and efficiency

- Decision support
- Processes
- Transparency

Improving peoples' lives

- New products and services
- New capabilities
- Higher quality

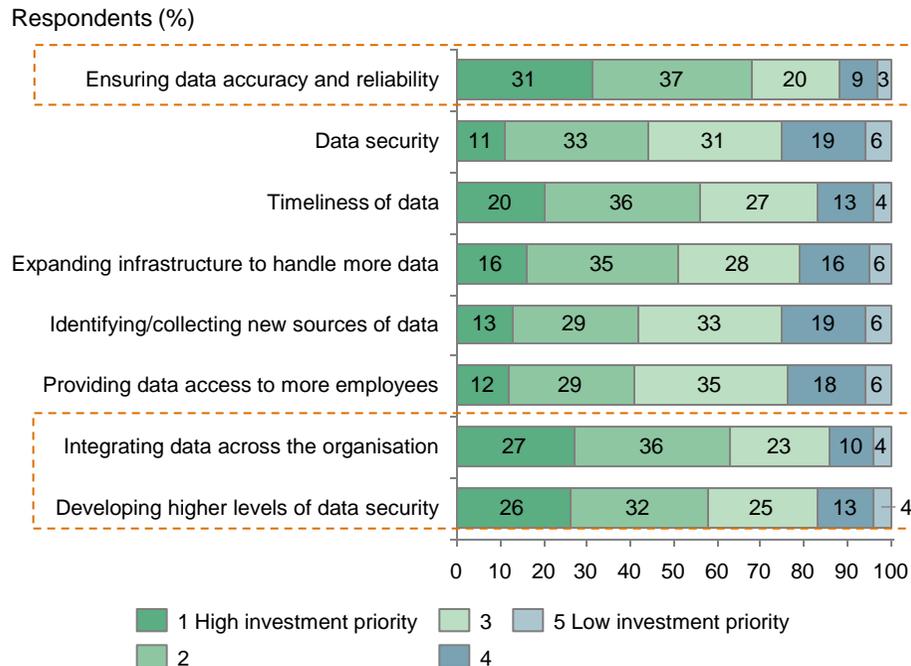
Managing risk

- Data privacy risk
- Data security threats
- Data integrity

The economist survey reveal interesting insights CXO's should pay special attention to when dealing with big data

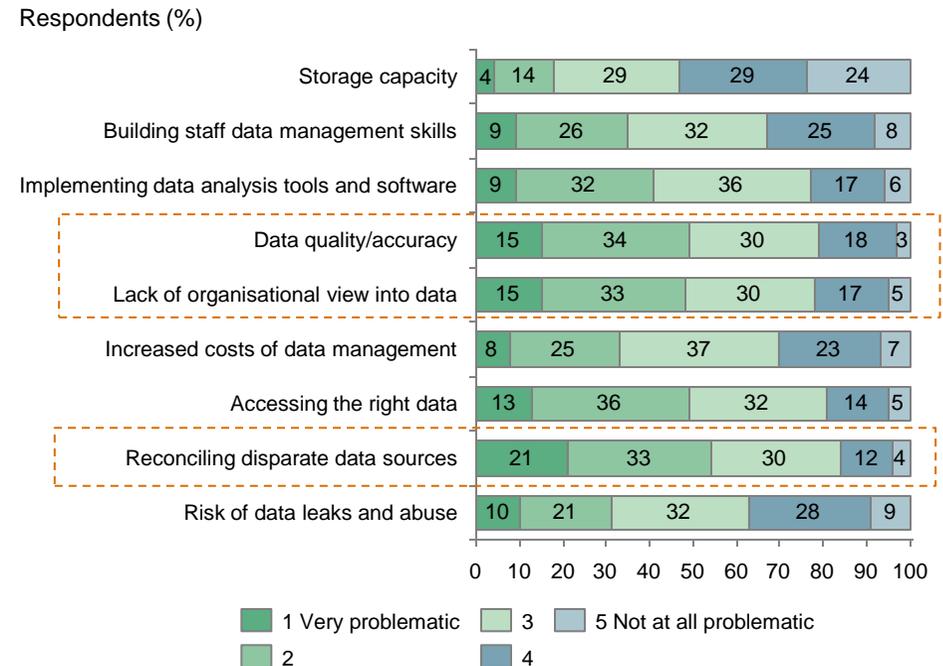
Data accuracy and reliability, data integration and data security should be at the top of the investment list

Please indicate the level of investment priority for the following aspects of data management



Data quality, organizational view and reconciling data sources are areas which can cause major problems

Please indicate how problematic each of the following is in the management of data in your organization



Note: The survey included responses from 586 senior executives from around the world. Of those respondents, 48% are C-level executives. 31% hail from North America, 28% from Asia-Pacific, 26% from Western Europe, 6% from Latin America, 5% from the Middle East and Africa, and 5% from Eastern Europe. Companies with less than US\$500m in revenue comprise 48% of the responses, and 39% of the respondents come from companies with more than US\$1bn in revenue. The survey covers nearly all industries, including financial services (13%), professional services (11%), manufacturing (11%), IT and technology (10%) and healthcare (8%)

Source: The Economist —Big Data

Key Requirements

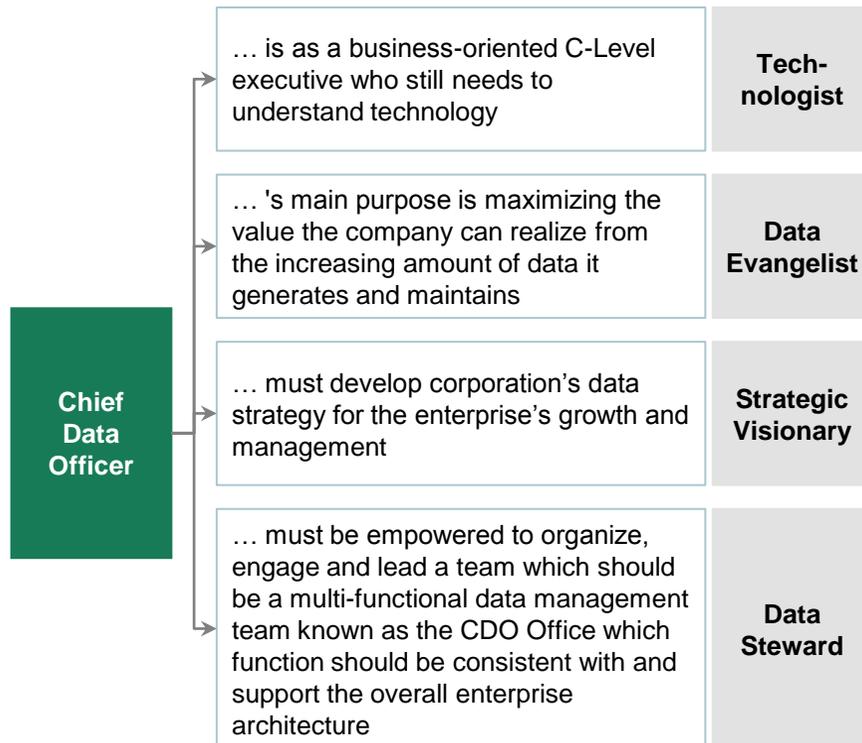
Businesses and regulators are continually requiring additional insights that information assets can provide. However, independent organizations and solutions increase risk and cost associated with the increasing complexity of these new insights

There is no “silver bullet” but many organizations are moving towards building a Chief Data Office (CDO)—The CDO is a mechanism of transformation to business, enabling business users greater insights of business performance through analytics, reporting and the management of information: The opportunity for banking is to transform:

| | From | To |
|--|---|---|
| 1 Chief Data Officer organisation | <ul style="list-style-type: none">• Data is managed across multiple functions• X FTE across the Division involved in Data• Limited ability to govern data.• Data landscape complex & disjointed across functions• No investment in Data to improve current position | <ul style="list-style-type: none">• Single organisation to manage data with clear roles and responsibilities• Strong governance on data and data standards• Consistent approach to control and policies on data input.• Data is recognised as a key asset with investment prioritised. |
| 2 Sources of data and data quality | <ul style="list-style-type: none">• Duplication of reporting.• Low quality of data with no consistent methodology• Multiple sources improving data quality | <ul style="list-style-type: none">• Golden source of data for consistent business & regulatory reporting• Business Intelligence tools.• Single area responsible for data quality improvements |
| 3 Linkage with Finance and Risk systems and data enrichment | <ul style="list-style-type: none">• Limited integration with Finance and Risk systems• "Localised" business enrichment | <ul style="list-style-type: none">• Integration with 'Data' Risk & Finance colleagues collaborating and influencing golden source" |

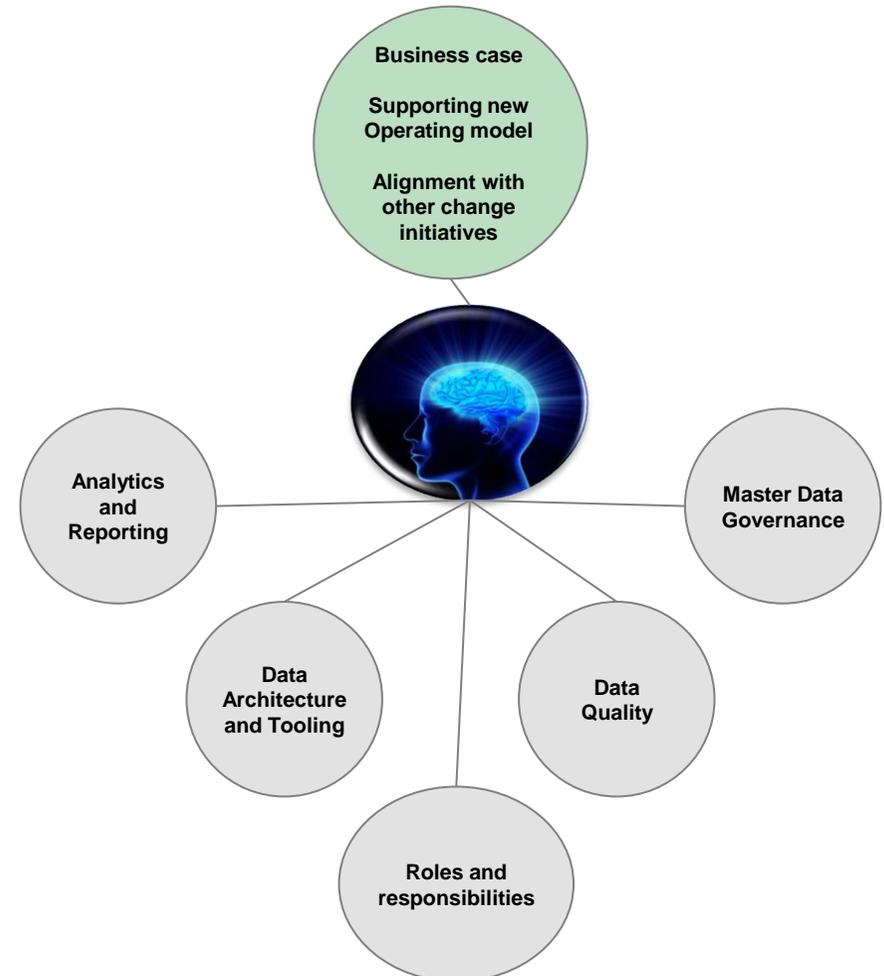
The case for a Chief Data Officer...

... But who actually is the chief data officer?



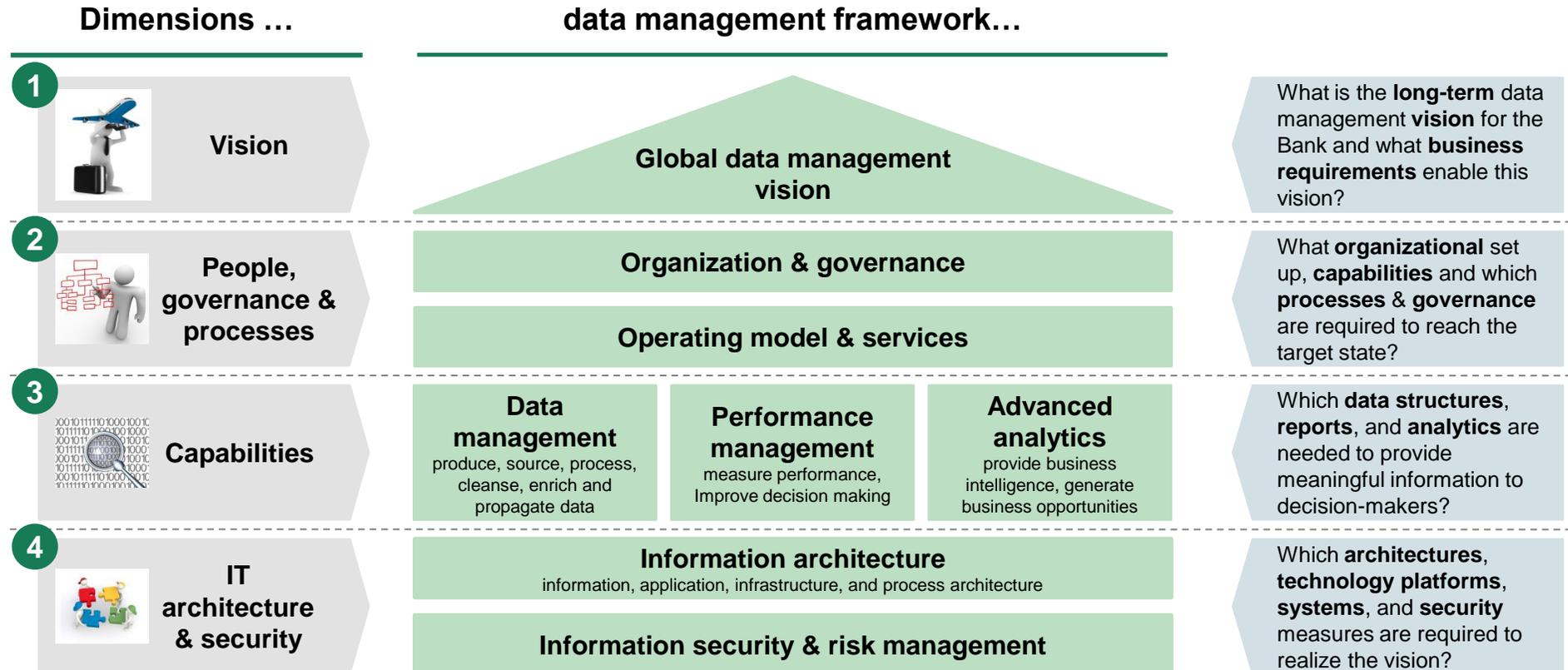
CDOs may have a more operative or strategic oriented role depending on organizational vision

What's on the CDO's mind ...



Data management framework helps outline the scope and structure of your data programme

... and building blocks of BCG data management framework...



What do we think the current challenges and pain points are at all of the dimensions? Where should focus be?

Questions to consider...

Be clear in your messaging with stakeholders, they will want to know the "what's in it for me..?" so you'll need to anticipate their questions and have preliminary answers, even if only hypotheses until you do your actual program design

What is the value creation story—3 main value drivers: Increase revenue and value ,Manage cost and complexity , Ensure survival through attention to risk and vulnerabilities: compliance, security, privacy, etc.

Measurement—what is the corollary between data quality and performance improvement ? How much capital do we hold for RWA ? How much less usage do we need due to improved data

How long does it take to do month end reporting—how many P&L adjustments per month, etc—what is the improvement due to quality data

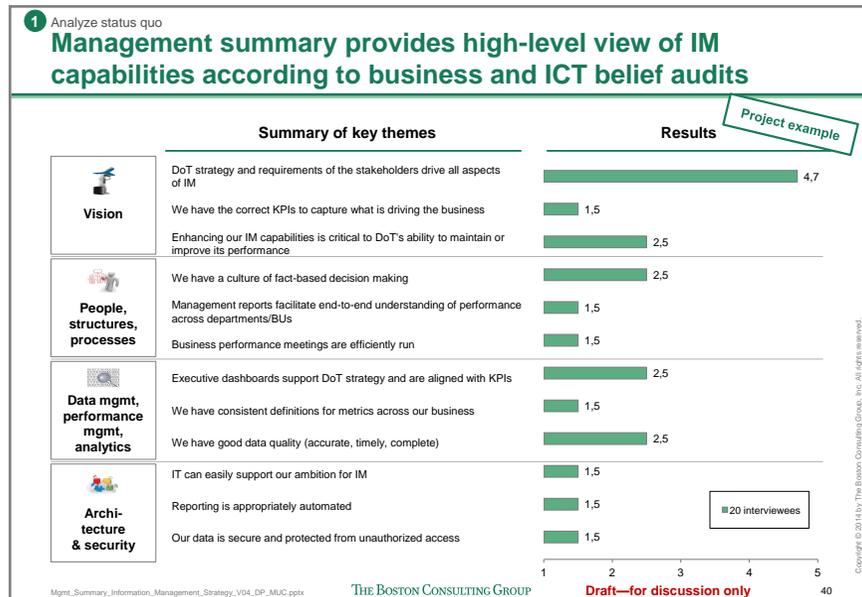
What is our STP rate for equities ? How many SSIs/payments do we rework. What is the improved STP rate due to improved data

How is the programme funded—is there chargeback to stakeholder community or sunken cost ?

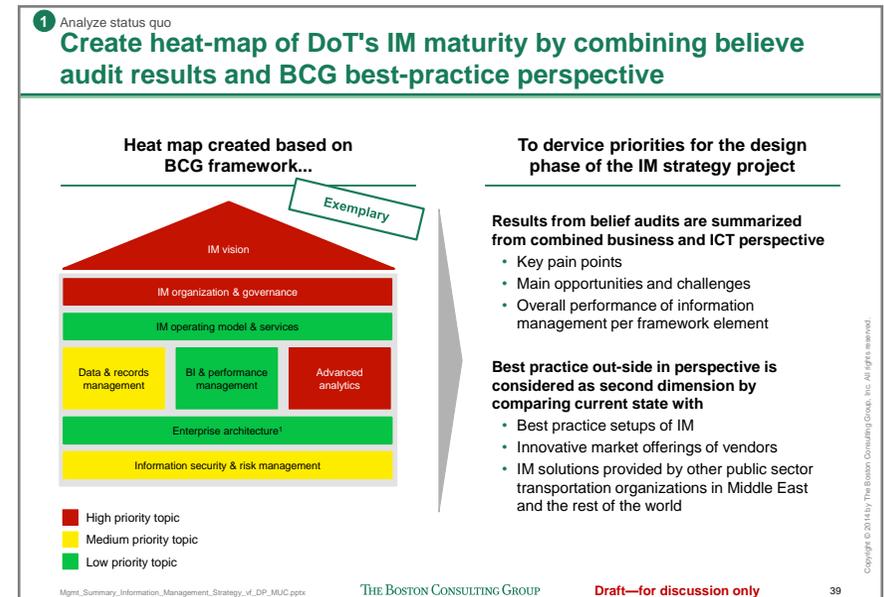
The Data Enablement programs we've seen that are the most successful are ones with a clear focus, metrics that excite leadership, a value proposition that everyone can get behind, and a clear message.

Results show maturity from a business, IT, and best-practice outside-in perspective

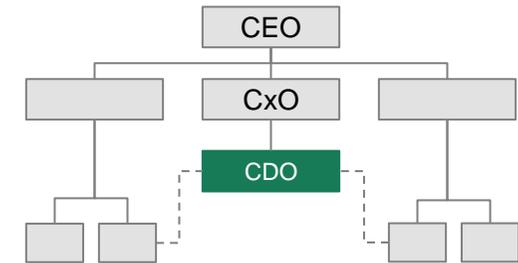
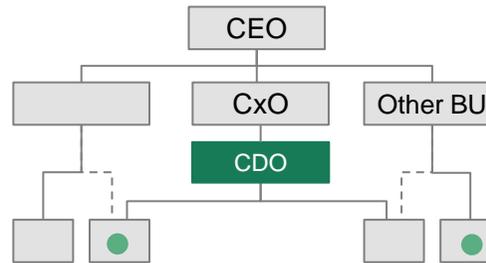
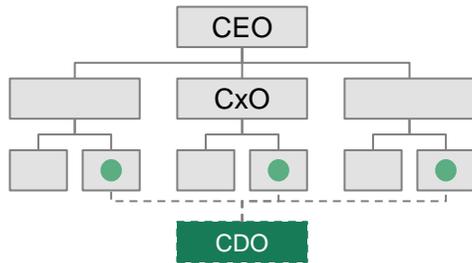
Maturity assessment from business and IT perspective



Overall evaluation including best-practice outside-in view



Three different designs for CDO office widespread



● (Big) Data resources allocated in BUs

Virtual

- CDO central management restricted leadership; members located in functions
- Most frequent organizational setting

Mixed

- CDO independent with associated units located in the business
- Big Data members from both technical and business profiles
- Very frequent setting for large organizations

Centralized

- CDO function under the CFO/CIO with all resources
- Natural choice for data-intensive organizations
- Centralized department sharing resources along all BUs
- Potentially: Direct reporting line to CEO

An outlook on the level of preparedness of a selected number of actors

| Self Assessment | A leading UK bank | A leading banking group CEE | A Universal European bank |
|--|--|---|---|
| <ul style="list-style-type: none"> Governance | <ul style="list-style-type: none"> Need to enhance reporting to the Board & to monitor implementation at entity level | <ul style="list-style-type: none"> Enhance reporting to the Board & monitor implementation at entity level | <ul style="list-style-type: none"> No transversal governance nor integrated view & senior management oversight |
| <ul style="list-style-type: none"> Architecture | <ul style="list-style-type: none"> No global standards, outdated Data Architecture in some BU Lack of central data model | <ul style="list-style-type: none"> Lack of global RDA&R architecture & enforce global supervisory unit | <ul style="list-style-type: none"> No single data model nor governance of thereof Group referential still in project |
| <ul style="list-style-type: none"> Data | <ul style="list-style-type: none"> Dictionaries & central metadata, ref data, policies in progress Data quality to be enhanced | <ul style="list-style-type: none"> lack of dictionaries & Group reference data, implementation & quality assurance | <ul style="list-style-type: none"> Data quality processes still in progress and lacking integration Data coverage incomplete |
| <ul style="list-style-type: none"> Reporting | <ul style="list-style-type: none"> Semi-automated reporting with manual controls Lack of feedback loop | <ul style="list-style-type: none"> Lot of manual controls to ensure quality | <ul style="list-style-type: none"> Critical reporting still lacking automation and relying on manual processes |
| Program Design | <ul style="list-style-type: none"> Large transversal Program (Finance, Risk, COO and IT) <ul style="list-style-type: none"> Oversight by the CRO of the Group 12 different streams for the program (Group transversal architecture, data quality and Group reference data) | <ul style="list-style-type: none"> Large transversal Program (Finance, Risk, CIB and IT) as part of IT infrastructure harmonization <ul style="list-style-type: none"> Oversight by two COOs of two major banks 10 different streams (functional, data definition & usage, IT architecture standardization) | <ul style="list-style-type: none"> A Program has been launched Oversight by the Group CRO Transversal program with Finance, Risk, CIB and IT 7 different streams for the program AQR post mortem will be a significant input for the Program |
| Investment size | <ul style="list-style-type: none"> \$\$\$¹ Major IT development planned as part of \$500m regulatory program over next 3 years | <ul style="list-style-type: none"> \$\$\$¹ Includes major IT developments Part of the work relates to organizational streamlining and processes improvement 24-36 month programme | <ul style="list-style-type: none"> \$¹ No major IT development planned yet Most of the work relates to processes improvement 12-18 months programme |

Source: BCG research

1. Legend: \$ Less than 50M€, \$\$ between 50 and 100M€, \$\$\$ more than 100M€ ● Fully compliant ● Largely compliant ○ materially non-compliant ○ Not been implemented (as per today)

Thank you for your attention—your questions



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