



“BCBS#239, organizational side effects”

Rome – 23rd of June 2015

1 **Preliminary considerations**

2 Setting up a CDO function

3 Value adding: some examples

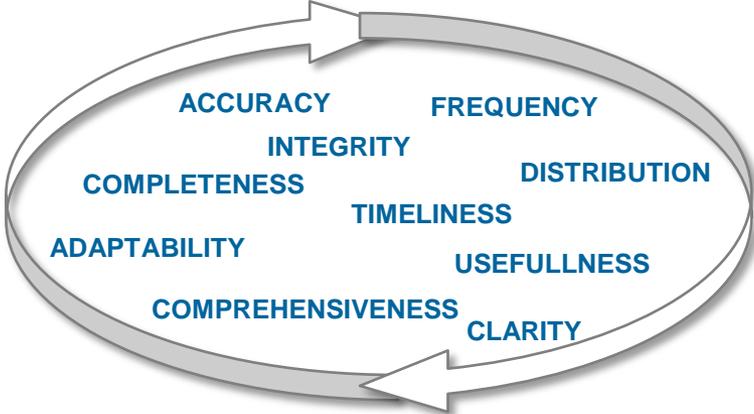
4 Conclusions

Effective risk data aggregation and risk reporting requirements – nothing substantially new in the latest regulations

BCBS 239 principles

*“One of the **most significant lessons learned** from the global **financial crisis** [...] Many banks lacked the ability to aggregate risk exposures and identify concentrations **quickly and accurately** at the **bank group level**, across **business lines** and between **legal entities**.”*

Source: BCBS 239 – Jan '13



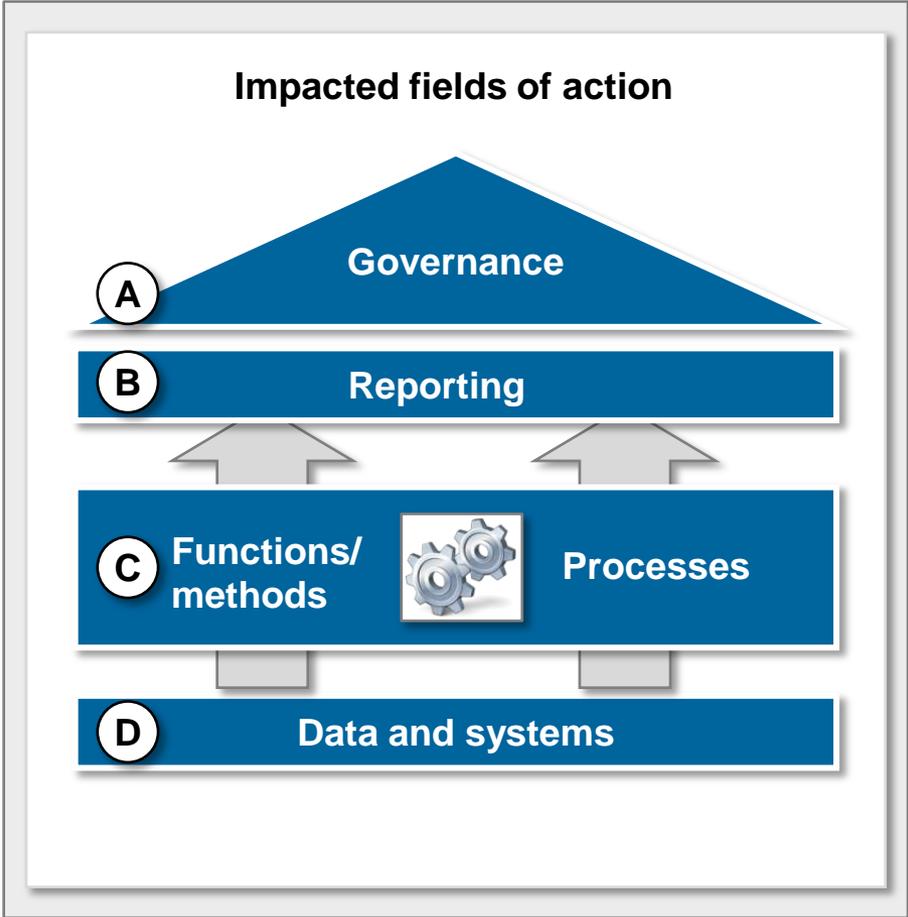
BCBS 239 principles to support banks' top management and Supervisors' timely and accurate decision making, especially in critical situations

From an efficiency perspective to a survival matter



The accomplishment of BCBS 239 principles will go through a rough way impacting several areas of the bank – such a change requires a strong guidance

Impacts of Risk Data Aggregation



RDA-Principles have implications on systems, processes and organization

Full implementation period estimated about two/ three years

IT improvements are necessary ...

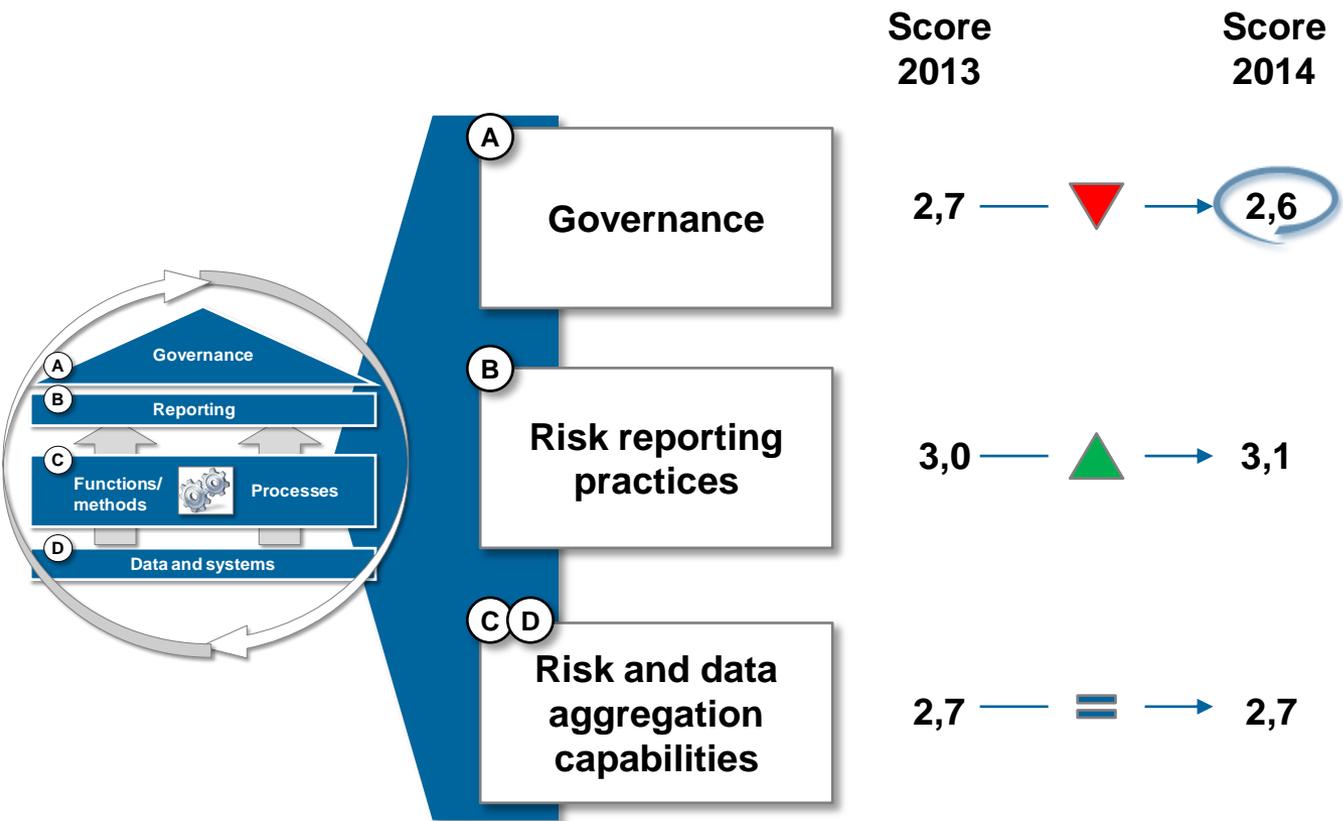
... but a top down approach is strongly suggested

Guiding the change is crucial to assure consistency and efficiency



The G-SIBs self assessment, sponsored by the Basel Committee to assess BCBS 239 compliance status, shows significant gaps especially on Governance aspects

Compliance assessment outcomes: 2013 vs 2014



Governance ... a Board affair:

- Promote identification, assessment and management of data quality risks
- Review and approve the bank's group RDA and risk reporting framework
- Be fully aware of and understand the limitations that prevent full RDA
- Be responsible for determining its own risk reporting requirements

Setting up a Chief Data Office could be the preliminary step to undertake in order to close the existing gap and assure a smooth and efficient change, and a continuous supervision



1 Preliminary considerations

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4 Conclusions

CDO as cross over function to enable quality, efficiency and chances in *using* data – to the benefit of bank steering and bank development

Initial situation and objectives

Our observation

- Historically each business unit required stand alone IT solutions for **stand-alone business**
- Some banks have implemented a Data Governance function – focussing on **finance and risk**
- The current evolution shows for the future a tendency to **integrate all data aspects in one CDO function** – including value adding functions to actively develop the business



Objectives CDO

- Bring business units together, integrate and consolidate the information, **overcome organizational barriers** (origination vs. steering)
- Envision and direct an overall **data and analytics strategy** (“*validate and explain*”) for the business
- **Activate change** by using data and analytics to deliver greater value and impact the business (“*challenge*”)
- Show options of realizing **cross over benefits** (“*do the right things*”):
 - *Taxonomies*
 - *Processes*
 - *Organisation*
 - *Human Resources*

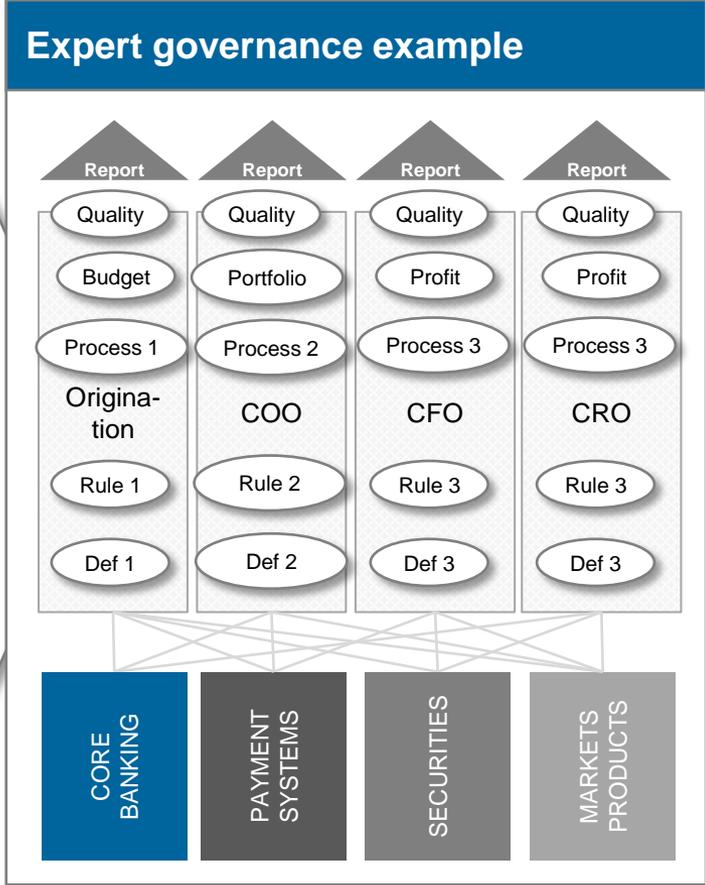
Development towards CDO needs clear positioning

Despite all technological advances, most business units in banks are still lead as expert silos

Expert governance – in this model experts define taxonomies, processes, functions individually

Expert governance is characterized by:

- **Managerial silos:** separation of functions and units (all levels)
- **Quality islands:** no information alignment, each area claims quality standards for herself
- **No steering focus:** experts deliver their view, but do not argue in terms of “overall relations/contribution”
- **Expert isolation:** managers do not like to enter expert discussions with relevant consequences:
 - High operational per capita risk
 - Stockholm syndrome with auditors and regulators
 - Creation of functional redundancies
 - Development of taxonomies and of rules in isolation
 - Creation of a dangerous mix of business and IT abstractions
- **Low synergies:** high inefficiency in terms of new, synergic usage of data and creating new chances from existing data



Resulting CDO core mission: break business silos, bring together the experts, establish layers/ abstractions for a federative cross functional approach with Origination, COO, CRO and CFO

Overcoming the silos: the target concept of a CDO is the basis to allow cross functional cooperation and integration

CDO covering all cross functional layers

- CDO concept characteristics:**
- Develop **innovative data usage approaches**, using prototyping and agile project management approaches
 - Clear mandate of reporting functions to **challenge management** of the business units i.e. with benchmarks
 - Overall cross functional analysis, providing a **cross functional explanation of results**
 - Cross functional **standard reports** generation
 - Provide **business services and consulting** to further develop the infrastructure
 - Clear **cross unit philosophy** of defining: taxonomy, rules of aggregation as well as processes (*run the bank*)
 - Defining **cross functional projects** (*change the bank*)
 - **Certificate processes** and data management



CDO as testimonial of a top down approach: instead of maintaining silos, focus on common functions along common processes – always along the core data value chain

Integration of business requirements entails also change processes to move toward centralization

Organizational Structure (Roles & Responsibilities) (1/2)

<p>A</p> <p>Silo</p>			<p>Still set up in a few areas of banks, e.g. retail, trading, risk, finance etc.</p>	<ul style="list-style-type: none"> • Hand-over process of requirements across divisions from business to IT • Parts of the change and complete run within CIO
<p>B</p> <p>Integrated</p>			<ul style="list-style-type: none"> • Common in most areas of banks • If underlying IT platform is centralized, banks also find ways to centralize the origination 	<ul style="list-style-type: none"> • Change processes integrated in business divisions, split between business and IT • CIO focus on service delivery and run activities
<p>C</p> <p>Integrated and aligned</p>			<ul style="list-style-type: none"> • Change processes are integrated in business divisions, reasonable split between business and IT • Alignment across divisions along change, via dotted lines to CIO 	<ul style="list-style-type: none"> • Change processes are integrated in business divisions, reasonable split between business and IT • Alignment across divisions along change, via dotted lines to CIO
<p>D</p> <p>Integrated and centralized</p>		<p>see next slides for details</p>	<p>Tendency towards centralization of change in few banks</p>	<ul style="list-style-type: none"> • Requirements from business divisions are bundled • Central change management orchestrates different requirements and drives towards service delivery

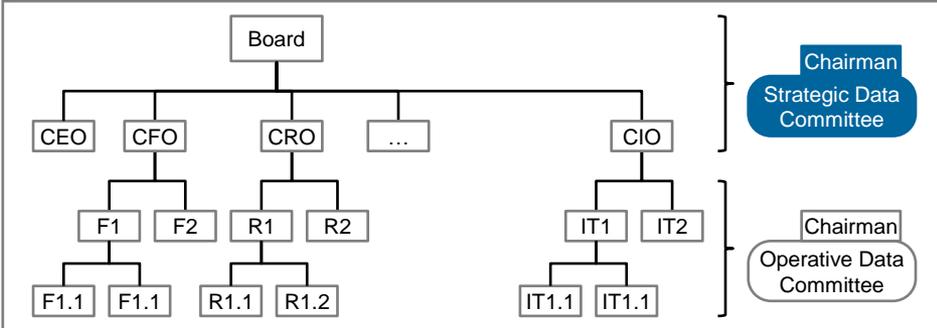


Integration of organizational units requires joint committees – alternative CDO organizational positioning

Organizational Structure (Roles & Responsibilities) (2/2)

D1

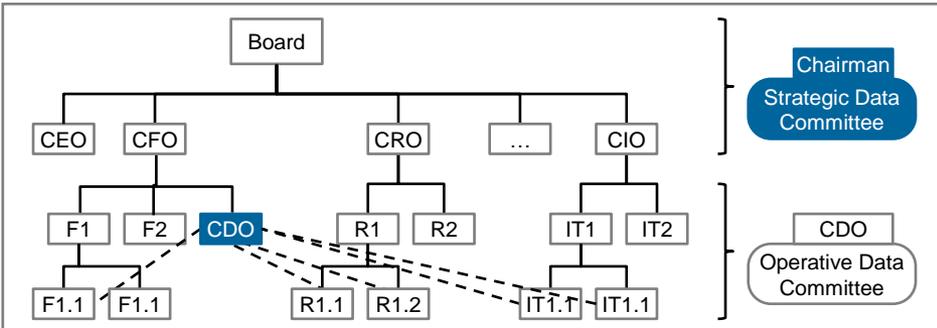
Committee approach



- Data governance responsibility in strategic and operative committees
- Strategic committee consists of different board members (CRO, CFO, CIO)
- Chairman of the strategic committee is usually the CEO

D2

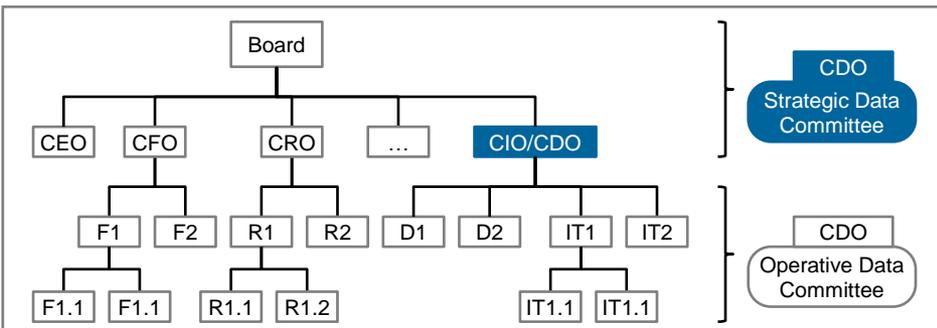
CDO on B-2 level



- New CDO role (one accountable person) on B-2 level
- CDO is member of the strategic committee and chairman of the operative committee
- CDO reports to business, e.g. CRO or CFO. Functional reporting line from affected business and IT units

D3

CDO on B/ B-1 level

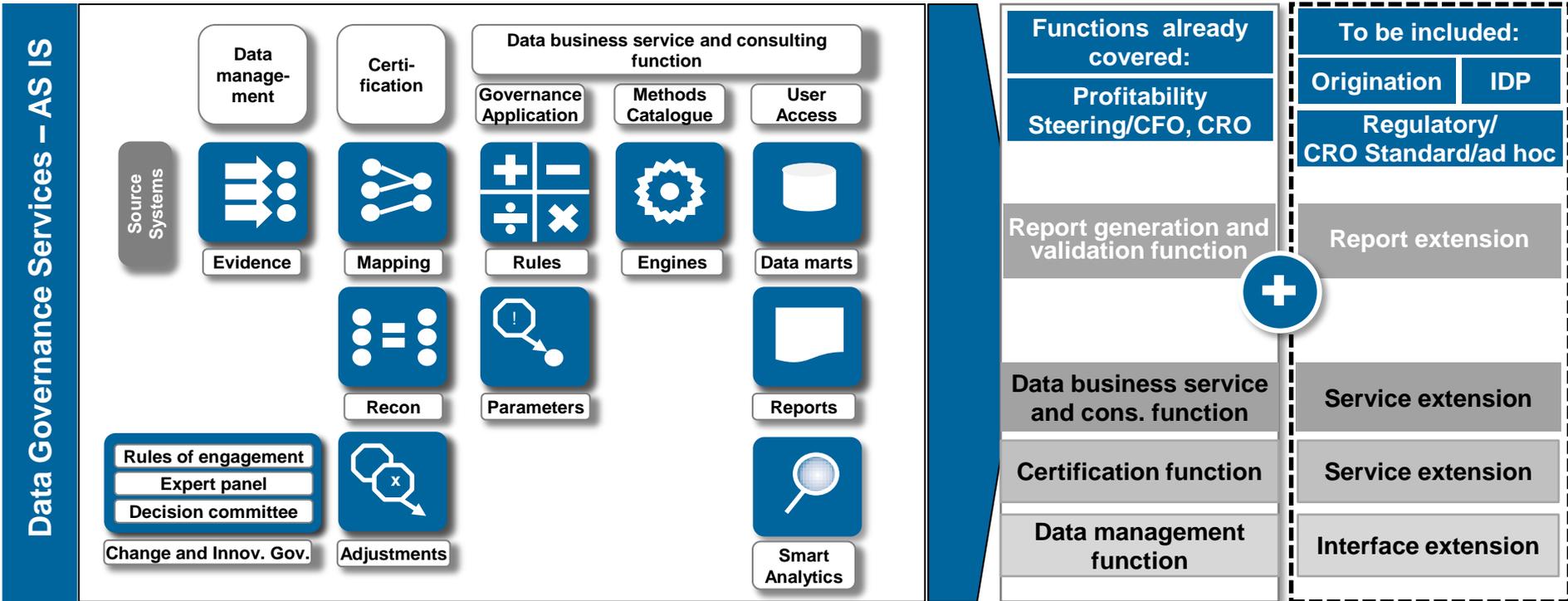


- CDO role on B or B-1 level, direct report to CEO/CIO
- CDO is chairman of the strategic committee
- CDO is supported by its own team(s) and covers parts of the end-to-end value chain

Basis for Data Governance are often already developed involving some cross functional services – extension to origination as a next step for full integration

First step towards full CDO approach: Extend services to origination

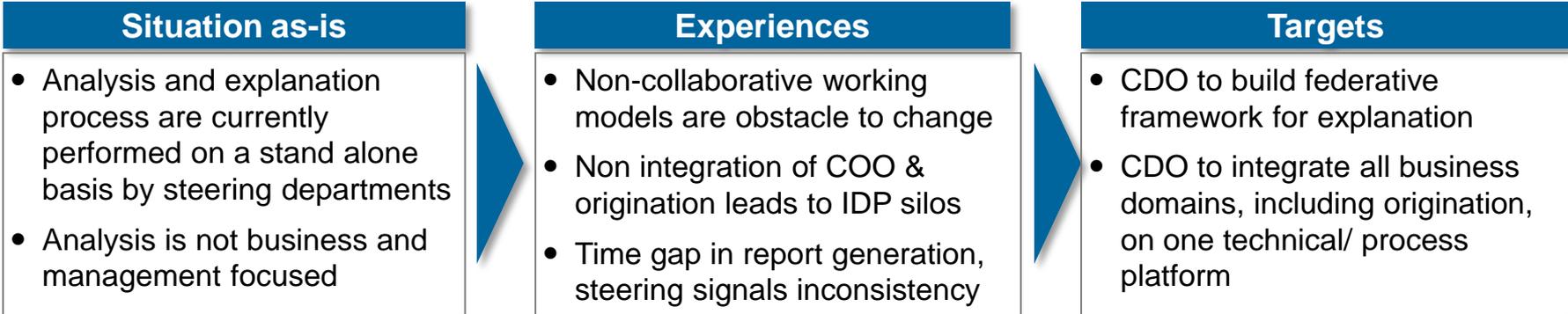
- Deliver the **complete picture for all functions** already covered by data governance
- Explicitly analyse the **fields where IDP is still in place and migrate** these to the DG service platform
- Explicitly **include the origination desks** to cover the complete front-to-end information flow



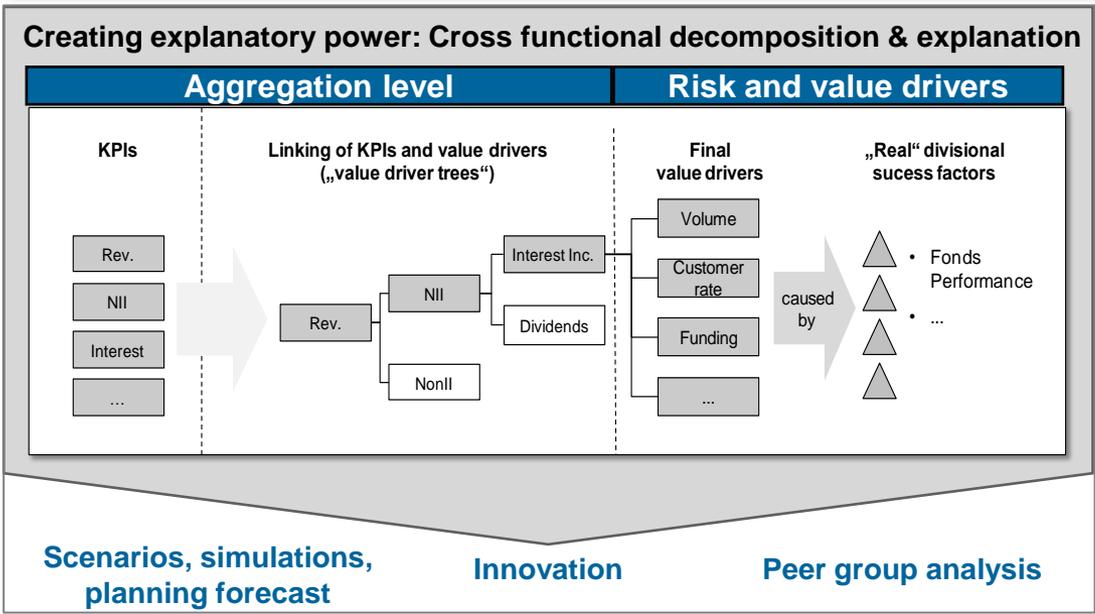
Convince origination departments to follow the CDO approach focusing on costs, synergies in current processes – not to forget the value added by permanently analyzing data usage

Extend the CDO function to analysis and explanation – establishing a cross functional explanation process

CDO: Overall analysis function



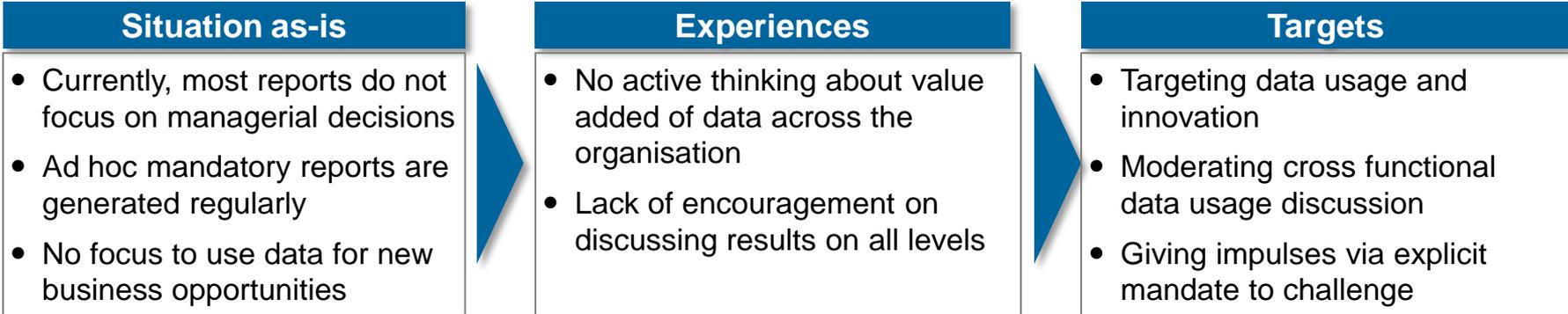
Explanation of the process



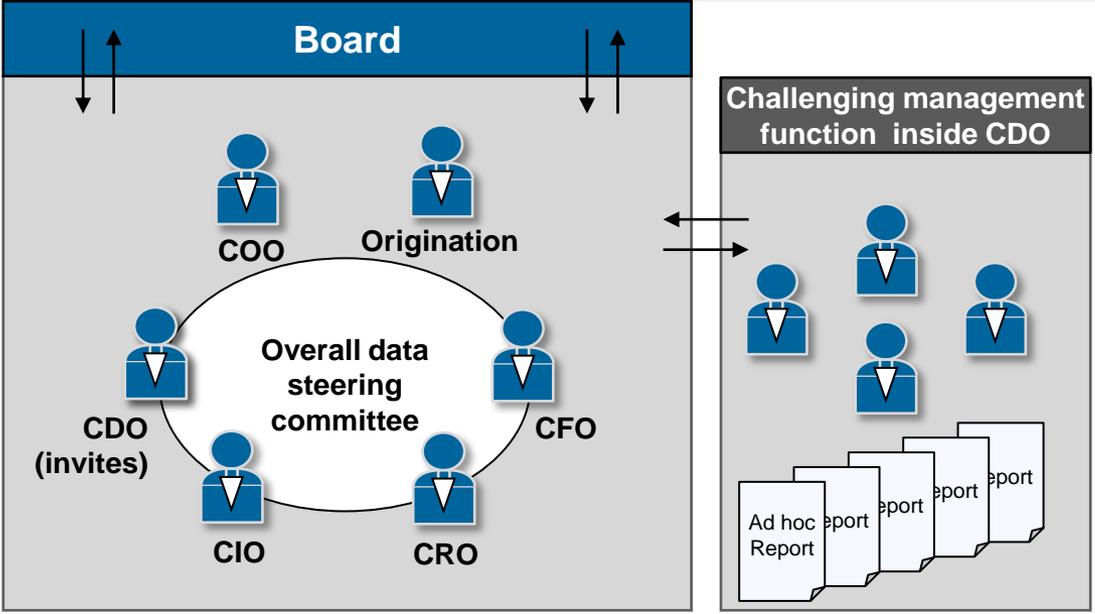
- CDO to bring together knowledge from different business domains
- CDO to provide analysis and explanation framework and explanation processes
- Clear responsibilities and explanation roles including the origination in the validation/explain process – including all business domains on the CDO platform

Use data to create value challenging management on a regular basis – proposing 360° view on innovation and change

CDO: Challenging management function



Conclusions



- CDO to organise overall data steering committee to discuss data usage
- Bank steering data committee to decide on investment in infrastructure as well as on task forces and procedures for ad hoc measures
- Consulting-style team for ad hoc reporting and benchmarking requests
- Challenging performed to collect benchmarks and new business approaches for data usage
- Propose concrete processes for introduction of innovation

1 Preliminary considerations

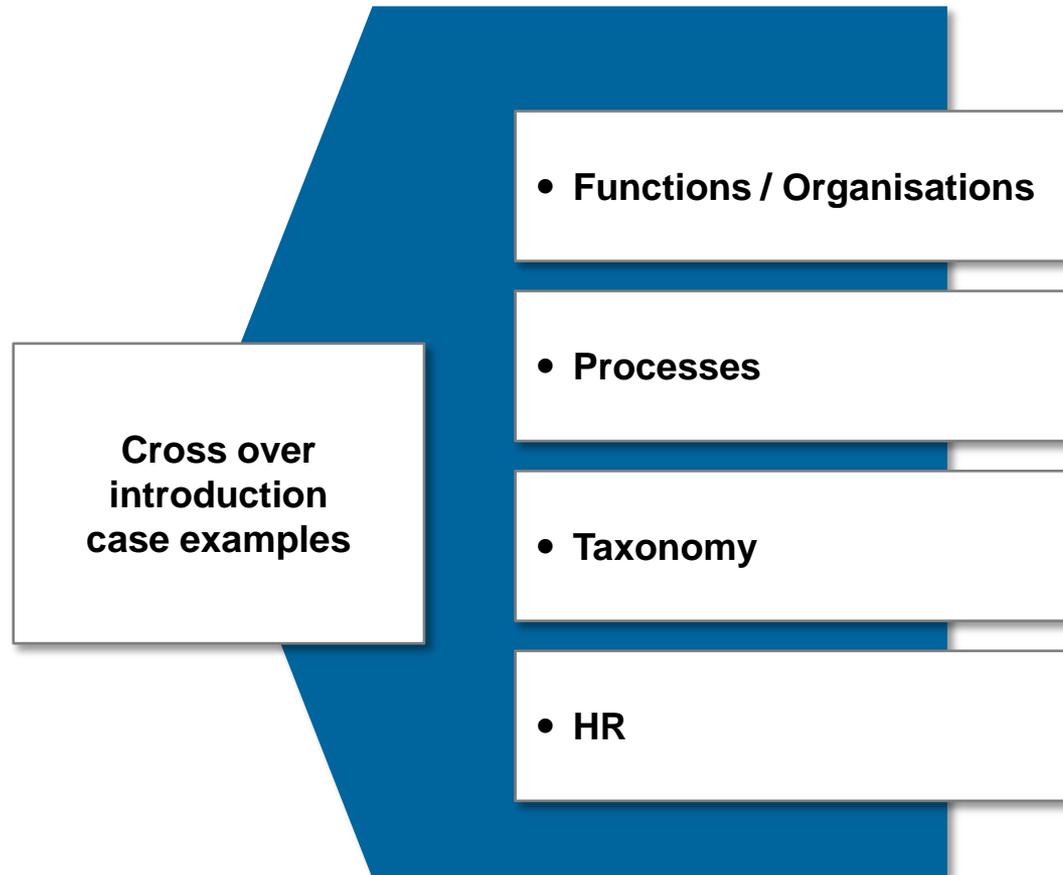
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Functional development and improvement: examples of areas where the CDO introduction would provide value added to the current framework

Cross over: function/organisation, processes, taxonomy, HR



Cross over is a matter of mindset: cross over use cases more and more established in bank-steering



Example organisation: establishing a cross-over challenging organisation – CDO to provide the organisational as well as technical platforms

Cross over organisation: Challenging management function

Task	Activities and processes to challenge the business lines			
Owner	Frequency	Board	Participants	Basis of discussion / items
Group CFO	Monthly	Business Line review	<ul style="list-style-type: none"> • Group CFO • Business Line CEO • Business Line CFO 	<ul style="list-style-type: none"> • Balance sheet limits • Individual reports by market and district • Ranking & efficiency reports • Profitability of customers and products • Business specific key performance indicators • Selected risk information
	Quarterly	Business line Strategy review	<ul style="list-style-type: none"> • Group CEO • Group CFO • Business Line CEO • Business Line CFO 	<ul style="list-style-type: none"> • Strategic priorities • run the business (e.g. capital allocation, people management, performance) • Value creation for shareholders • Peer group analysis • Re-forecast



Example processes: CDO to provide independent and lean data quality process delivering a KPI matching BCBS 239 requirements

Cross over process approach: Data quality

1 Bank Big Data

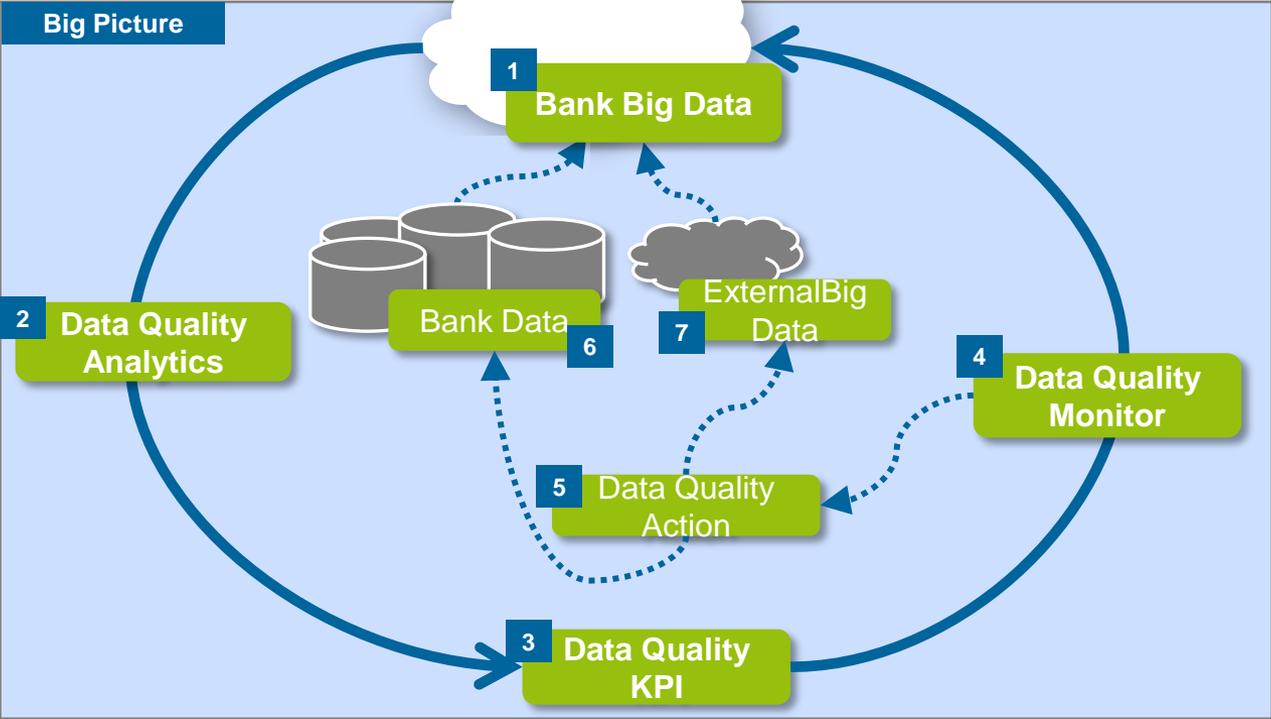
- Development of a view on complete Bank Data, containing complete CDO perimeter, using Big Data technology
- Find a cyclical concept which allows for more than 100 data quality iterations per year.

2 Data Quality Analytics

- Analyze the data quality of single databases model via:
 - semantic context
 - big data analytics
 - missing value probabilities.
- Target: evolve data quality analysis at every iteration
- Learn how to improve on cyclical analytics!

3 Data Quality KPI

- Methodology to score the data quality improvement at every iteration
- Data quality score describes status of score for each internal database as well as the overall quality status
- Learn how to develop and apply own methods to measure data quality



4 5 Data Quality Process

- Process to monitor data quality improvements by changed and unchanged data
- Definition of data quality actions in „real bank data“
- Learn how quick it is to manage big data quality development cycles!

6 Bank Data

- Make data quality improvements in all of your systems!
 - ERP
 - EPM
 - ERM
 - CX
 - SCM
 - Regulatory

7 External Big Data

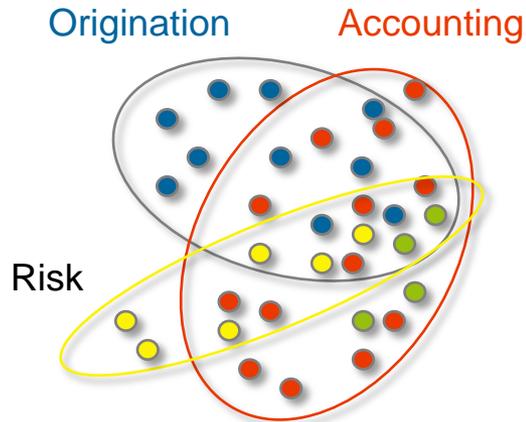
Publically available data, other data sources externally available like Facebook, Google etc.
Keep track on all regulations necessary and help shaping those for cloud and big data, especially from CFO/CRO point of view



Example taxonomy: CDO to bring together all important steering scales across steering and origination areas

Cross over taxonomy: Country as example

Country as example for taxonomy overlaps



Common risk taxonomy for country risk:

Based on abstraction of cross country payments (in diverse variations, according to the structure of a deal)

Origination definition of country Risk:

risk of a country Portfolio according to country of risk origination

Accounting country risk definition:

risk of country, where the deal was booked/ is to be paid

Expert taxonomy creates extra complexity!

- If experts define the taxonomies of each of their business domains, slight overlappings lead to additional complexity
- Taxonomies (see country risk) need overlaps, but it must always be defined which one sets the leading abstractions and which ones are used for explanation
- Define a common taxonomy (very difficult because overlaps are included) including especially all overlaps!

Taxonomies are key driver of complexity!
As CDO look at the overlaps and make them describe- and measurable



Example HR: CDO needs HR concept to support the change towards cross-over leadership and skill development

Cross over HR management: It's a team challenge

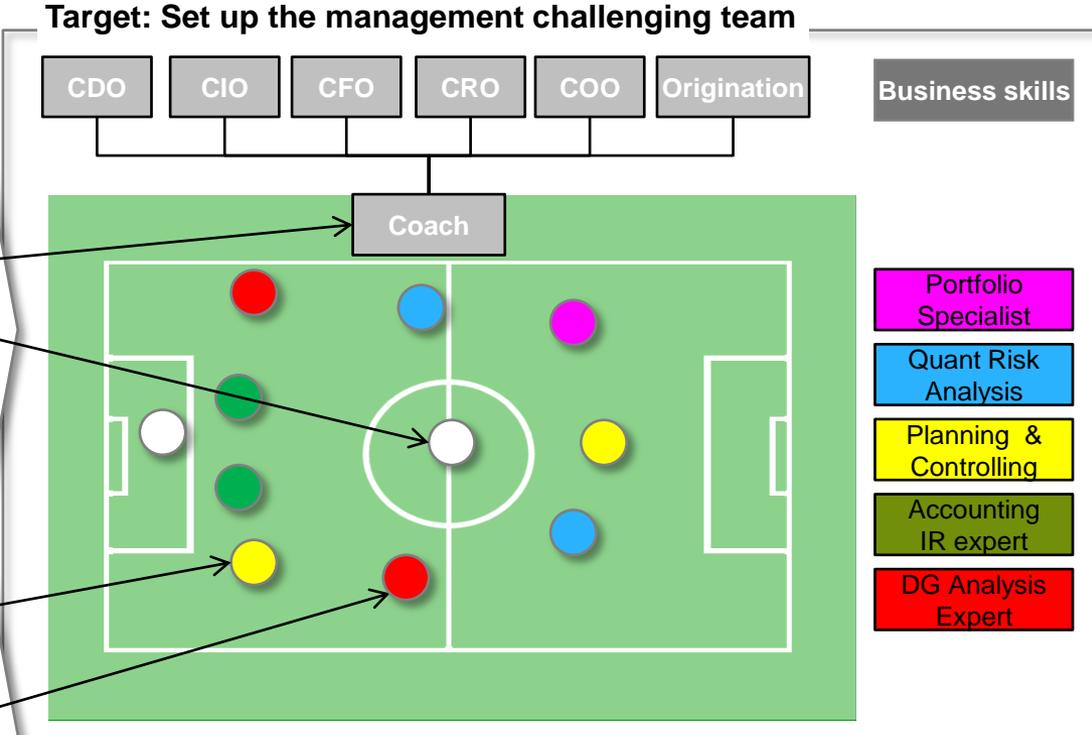
Soft skills

Leadership / Change agents

- Commitment of CEO, CFO & CRO required
- Identify change agents and coaches
- Selection of key staff to drive change

Focused Training & Skill development

- Differentiated skill profiles for each CDO role
- Continuous training and development
- Avoid “value discussion” about relative importance of each role



- Clearly separate stakeholders, coaches and players
- Coaching is the most central function
- HR topics should be addressed in cross-functional management committees to “build the bridges” between participating organizations

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Data completeness and accuracy is critical for decision-making, reporting, risk management and regulatory compliance. Rationalization, integration and evolution of data governance need to be lead by a permanent CDO structure

CDO benefits

- 1** **Information stewardship:** CDO as a dedicated enterprise data steward serves as bridge aligning business and IT in the information management space 
- 2** **Close cooperation between business and IT as a strategic asset:** CDO can align the interests of the organization across all business lines and geographic borders. It will serve as a key partner together with the CIO for core business leaders such as the CEO, CFO, CRO 
- 3** **Data quality monitor and rationalization:** CDO unites individual business interests and technology silos to enable the rationalization of otherwise disparate stores of corporate information 
- 4** **Accurate and timely decision-making:** CDO assures data quality and availability for accurate and timely decision-making to reduce related risks and losses 
- 5** **Risk management and regulatory compliance:** CDO rationalizes information silos, defines and executes data governance and stewardship regimes, enforces data quality standards, and creates shared information services 



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