




# **Profitability & Business Model Analysis, Stress Testing and Capital Management: a common ground for CFO and CRO**

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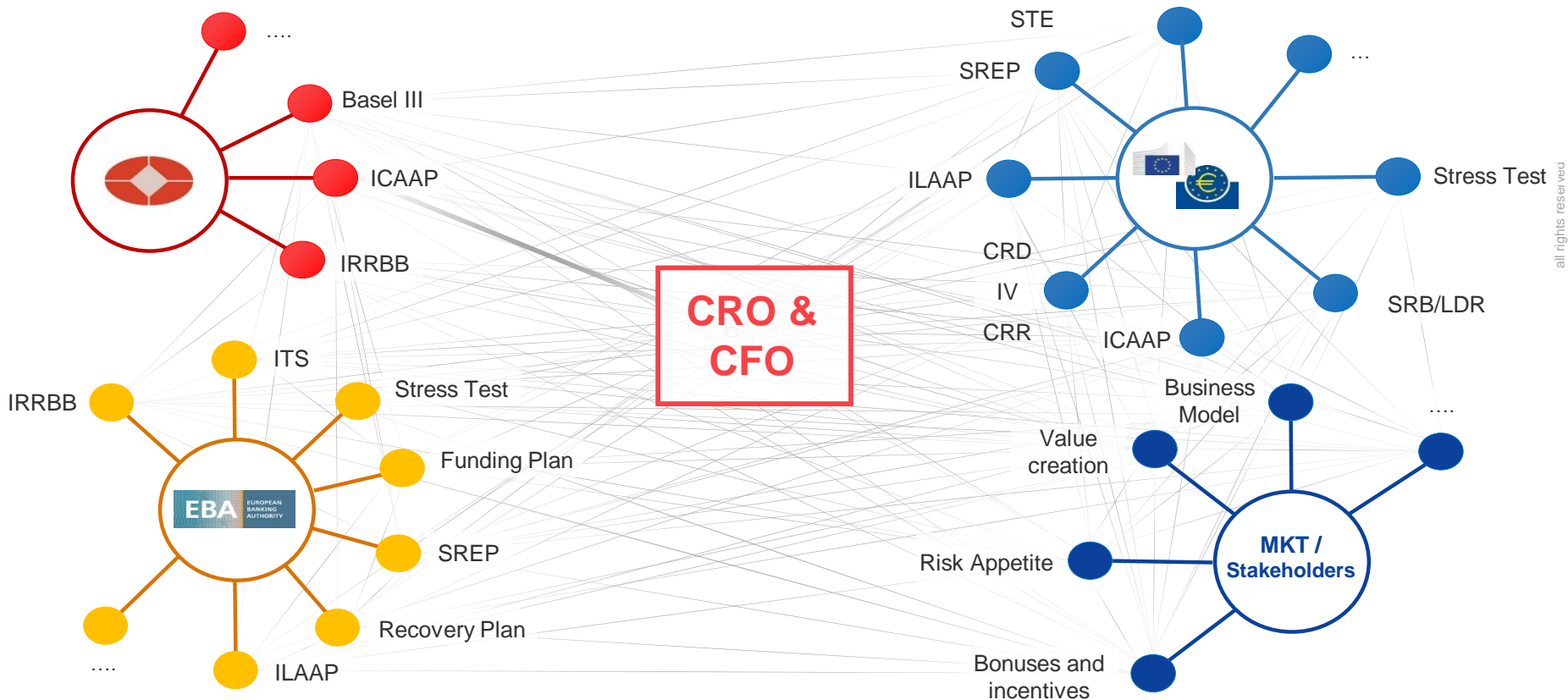
Roma, 21/06/2019

- 
- **A new integrated framework for risk & performance management**
  - Towards a common ground for CRO & CFO: which challenges?
  - Conclusions

# A new framework for risk & performance management

Increasing (complexity and number) business & regulatory requirements

Bank internal functions related to risk (CRO) and finance (CFO) have become key actors for a huge amount of regulatory and management / market requirements

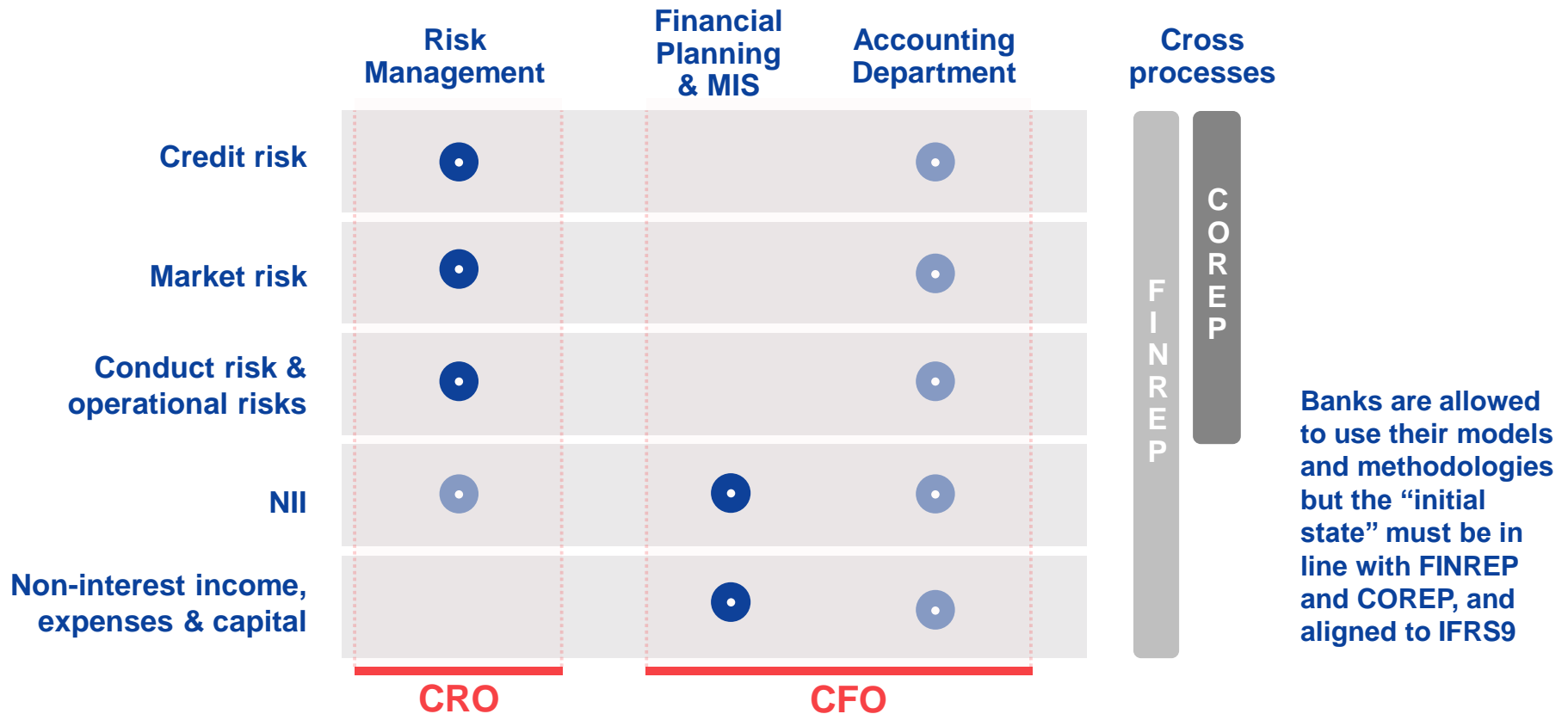


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# A new framework for risk & performance management

Example: the 2018 EBA/ECB stress test exercise

Recent regulatory requirements ask banks to develop comprehensive stress exercises which necessarily involve skills from both CFO and CRO units. All results must be coherent and comparable, also if produced by different owners!

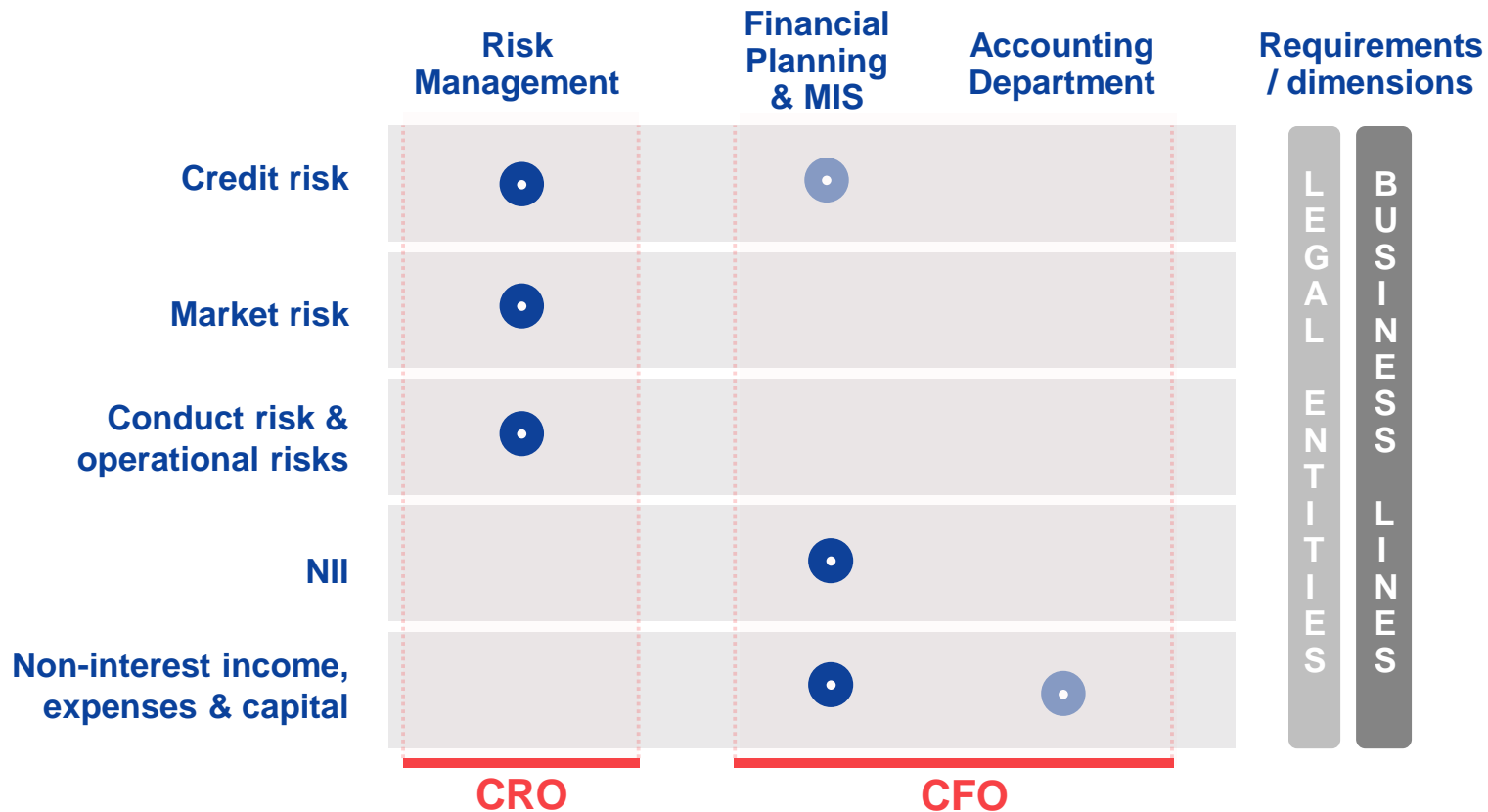


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# A new framework for risk & performance management

Example: strategic / capital planning

Strategic planning today must include the simulation of main Key Risk Indicators projected across the simulation horizon. This means a process that involve skills / tools from both CFO and CRO units



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# A new framework for risk & performance management

## Need for a deep connection between CRO and CFO: the rationales

From our financial industry outlook, there is strong need for a more effective collaboration between CFO and CRO functions & processes, encompassing three main key dimensions:

### Interconnections CRO & CFO



#### DATA & DATA GOVERNANCE

**Need to share** dimensions, input and output data to guarantee metrics and processes' coherence and comparability



#### ANALYTICS & CALCULATION ENGINES

**Need to share** analytics (i.e. calculation engines), with capabilities to produce a huge amount of detailed information and aggregate them into significant KPIs



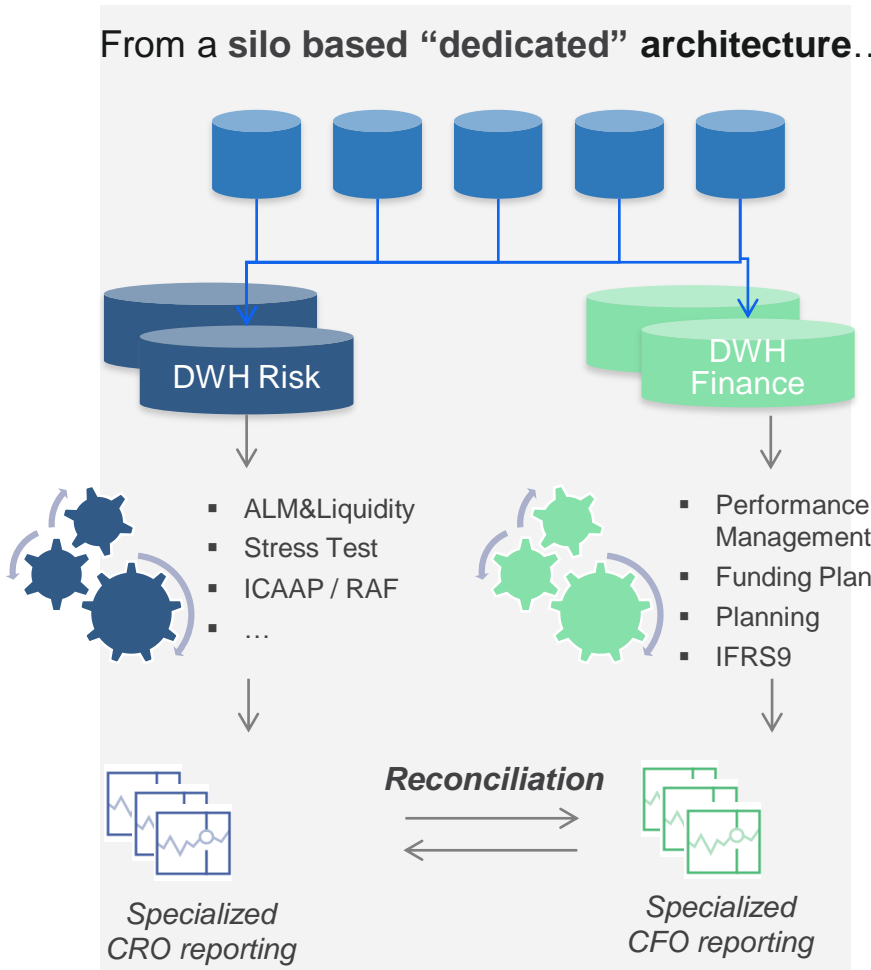
#### MODELS

**Need to share** hypotheses, models and scenarios in order to avoid redundant metrics and inefficiencies, and in order to guarantee coherence and allow interpretation of results

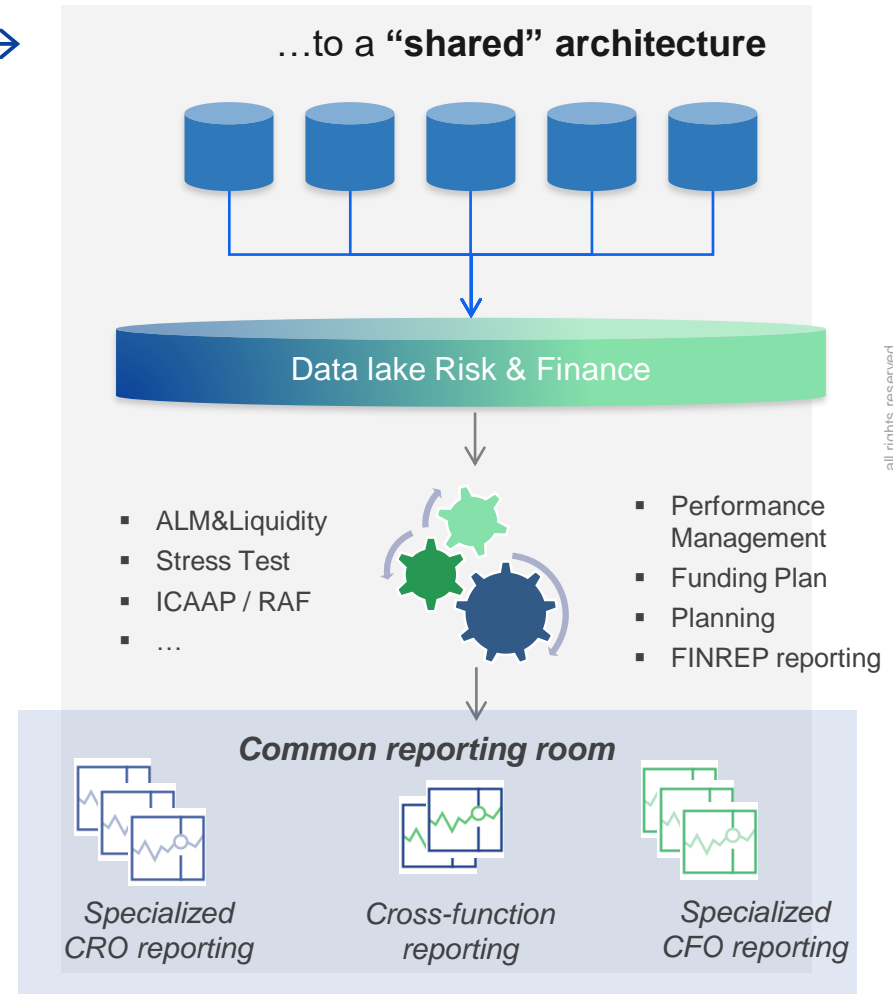
# A new framework for risk & performance management

Need for a deep integration between CRO and CFO IT systems

From a silo based “dedicated” architecture... →



...to a “shared” architecture



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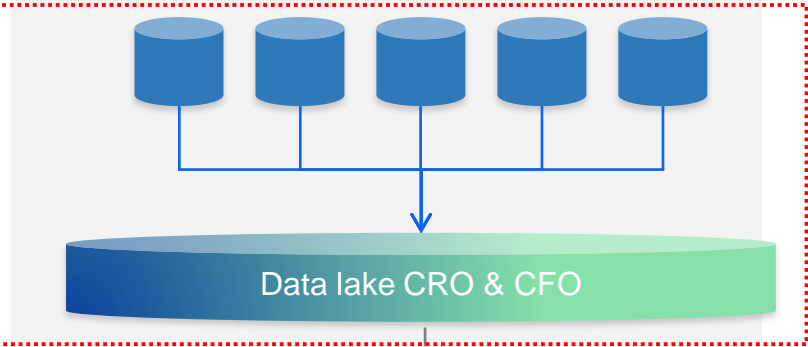
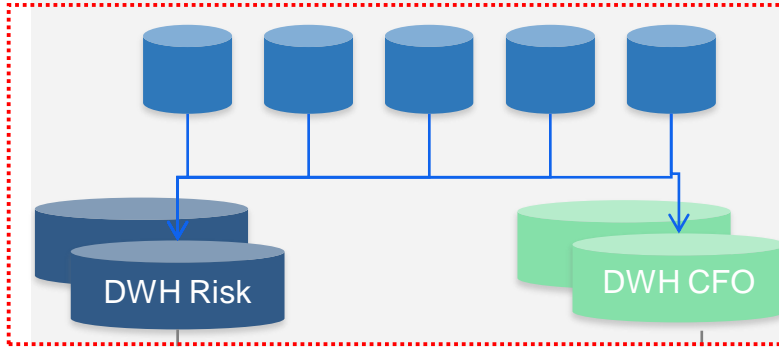
DATA &  
DATA GOVERNANCE

# A new framework for risk & performance management

Deep integration between CRO and CFO IT systems : focus on data governance (1/2)

From **specialized, dedicated datamarts...**

...to a **CFO – CRO data lake and reporting room**

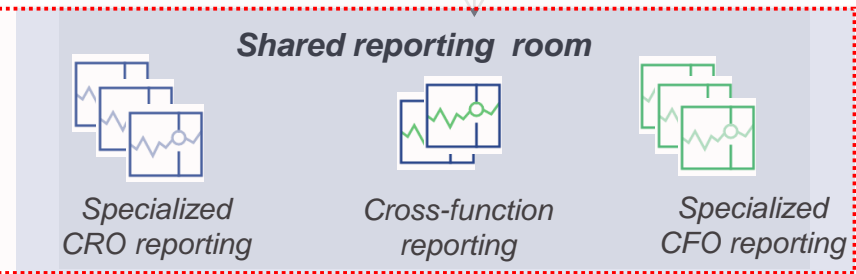
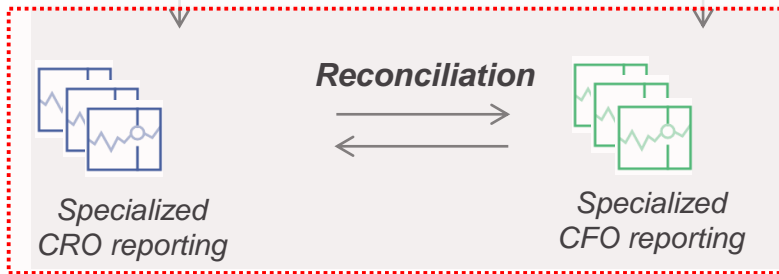


- Credit
- ALM&Liquidity
- Stress Test
- ICAAP / RAF
- ...

- Performance Management
- Planning
- IFRS9 accounting
- ...

- ALM&Liquidity
- Stress Test
- ICAAP / RAF
- ...

- Performance Management
- Funding Plan
- Planning
- IFRS9



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DATA &  
DATA GOVERNANCE

# A new framework for risk & performance management

Deep integration between CRO and CFO IT systems : focus on data governance (2/2)

From **specialized, dedicated datamarts...**

## PROS

- Less complexity to manage in each datamart (build and maintain)
- Each process is owner of its data: more flexibility and less organizational complexity

## CONS

- Redundant data quality processes
- Need for downstream reconciliation
- Not easily comparable managerial dimensions
- TCO

→ ...to a **CFO – CRO data lake and reporting room**

## PROS

- Integrated data model (“by definition”)
- No data redundancy / incoherency
- No or thin need for downstream reconciliation

## CONS

- Complexity (to set-up and manage)

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ANALYTICS & CALCULATION ENGINES

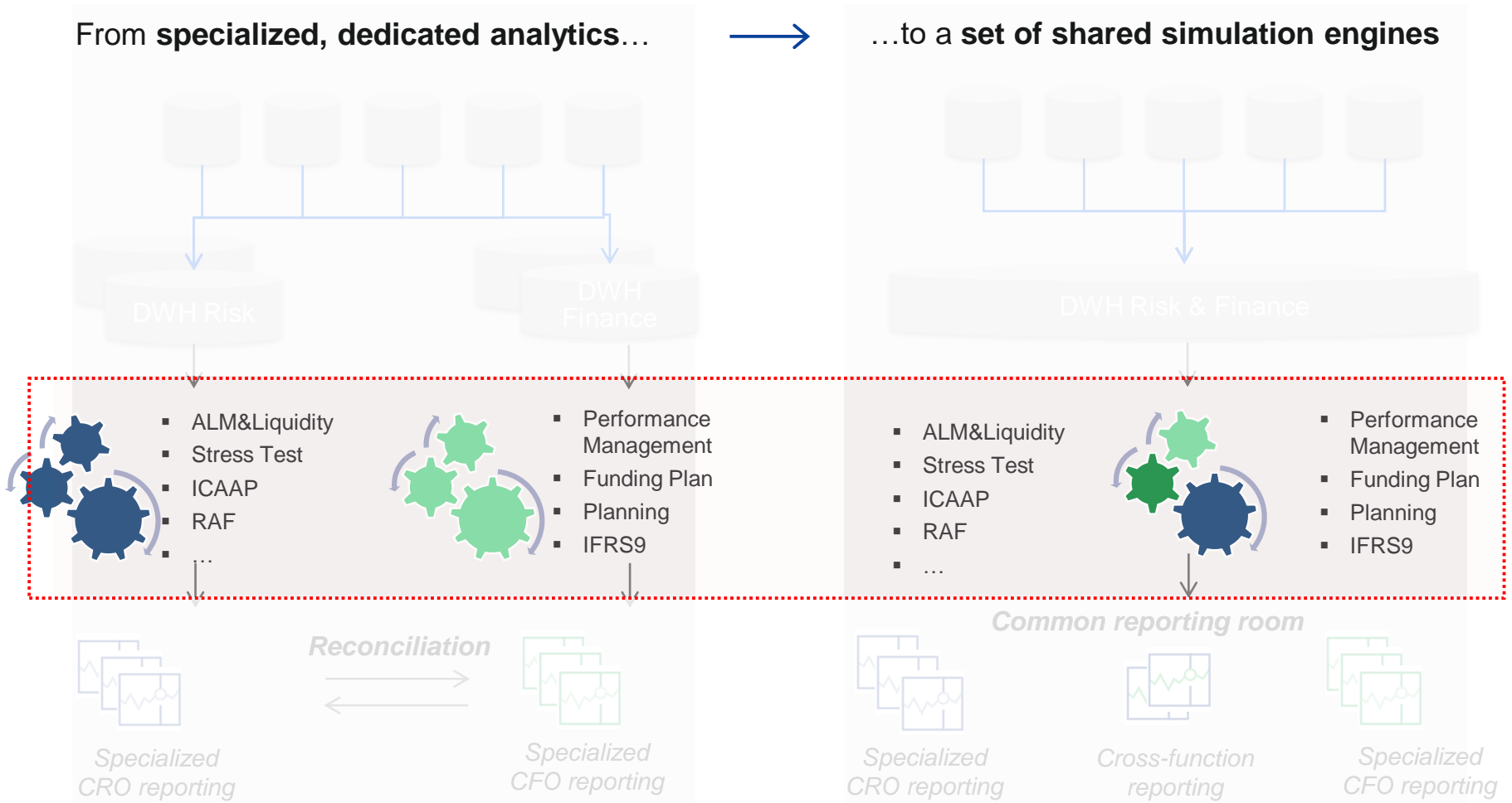
# A new framework for risk & performance management

Need for a deep connection CRO vs CFO: focus on analytics (1/2)

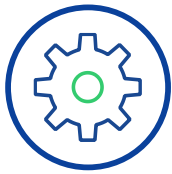
From **specialized, dedicated analytics...**



...to a **set of shared simulation engines**



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ANALYTICS &  
CALCULATION ENGINES

# A new framework for risk & performance management

Need for a deep connection CRO vs CFO: focus on analytics (2/2)

From **specialized, dedicated analytics...**

## PROS

- Each process is owner of its own dedicated "engine": more flexibility and less organizational complexity
- Best of breed (dedicated) solution

## CONS

- Several differences in algorithms and methodologies
- Need for complex downstream reconciliation of calculated results



...to a **set of shared simulation engines**

## PROS

- No or thin need for downstream reconciliation
- Coherence of algorithms: comparable and easy (or easier) to interpret output (results)

## CONS

- Organizational complexity
- Less flexibility in methodological evolution
- Discontinuity with current CRO & CFO processes

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MODELS

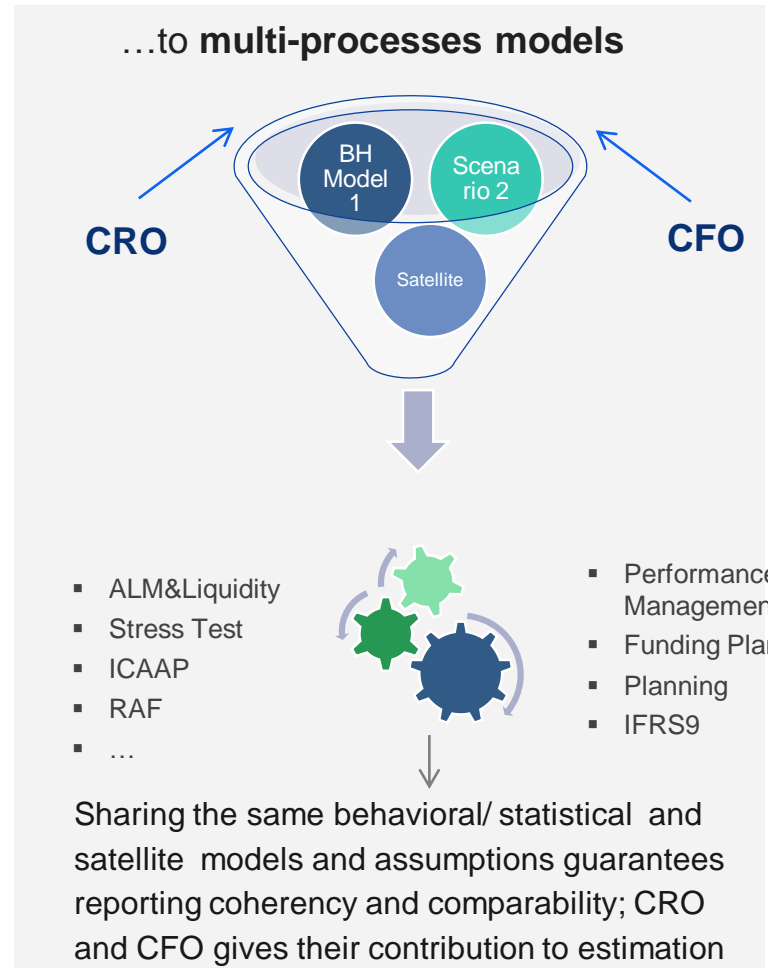
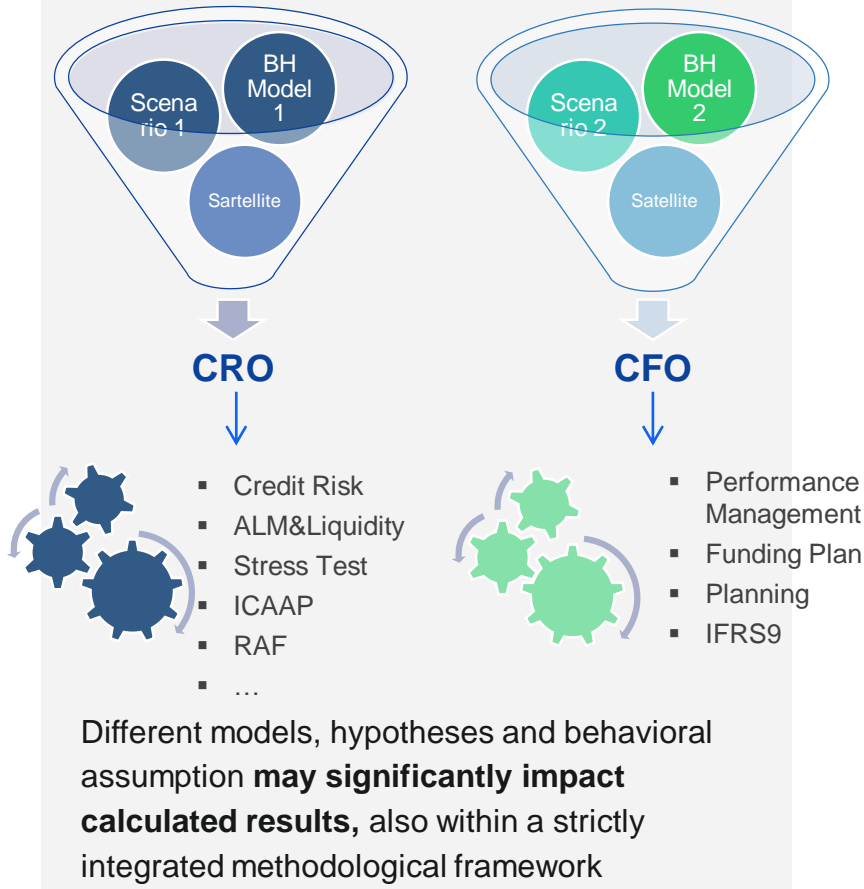
# A new framework for risk & performance management

Need for a deep connection CRO vs CFO: focus on models (1/2)

From **specialized, dedicated models...**



**...to multi-processes models**



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MODELS

# A new framework for risk & performance management

Need for a deep connection CRO vs CFO: focus on models (2/2)

From a **vertical, not integrated architecture**...

## PROS

- Each process is owner of its own models and scenarios: more flexibility and less organizational complexity

## CONS

- Proliferation of models (different for different processes) – increased model risk
- Need for complex downstream reconciliation of calculated results

...to an **interconnected architecture**

## PROS

- Coherence of applied models and methodologies and more robust results

## CONS

- Organizational complexity
- Possible constraints in model changes / updates

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- A new integrated framework for risk & performance management
- **Towards a common ground for CRO & CFO: which challenges?**
- Conclusions

# Towards a CRO vs CFO collaboration model

Which challenges for data governance?

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## DATA & DATA GOVERNANCE

The creation of a common data lake supporting CFO-CRO processes' requires **deep functional knowledge** in order to “map” data needs in a correct / complete way.

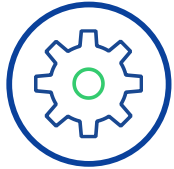
**State-of-the-art technology** available today lowers the TCO of Data Governance projects and time to deliver.

**Processes ownership and workflows** are a key element in the realization of data lakes / DWH

**Not an IT project!!**

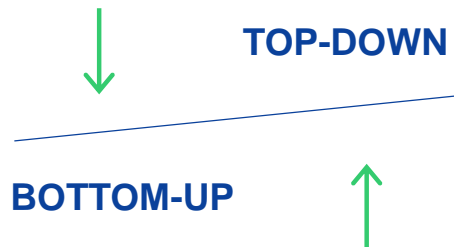
# Towards a common ground for CRO & CFO

Which challenges for analytics and calculation engines?



## ANALYTICS

The creation of a common methodological framework requires banks to look for a **meeting point between the bottom-up silo-based algorithms** (typical of CRO calculation models) and the **top down integrated but “simplistic” models** (typical of CFO planning processes).



Find a balance  
between the bottom-  
up and top-down  
approaches



# Towards a common ground for CRO & CFO

Which challenges for models & strategies?



## MODELS

Risk and performance metrics are significantly influenced by behavioral assumptions and models.

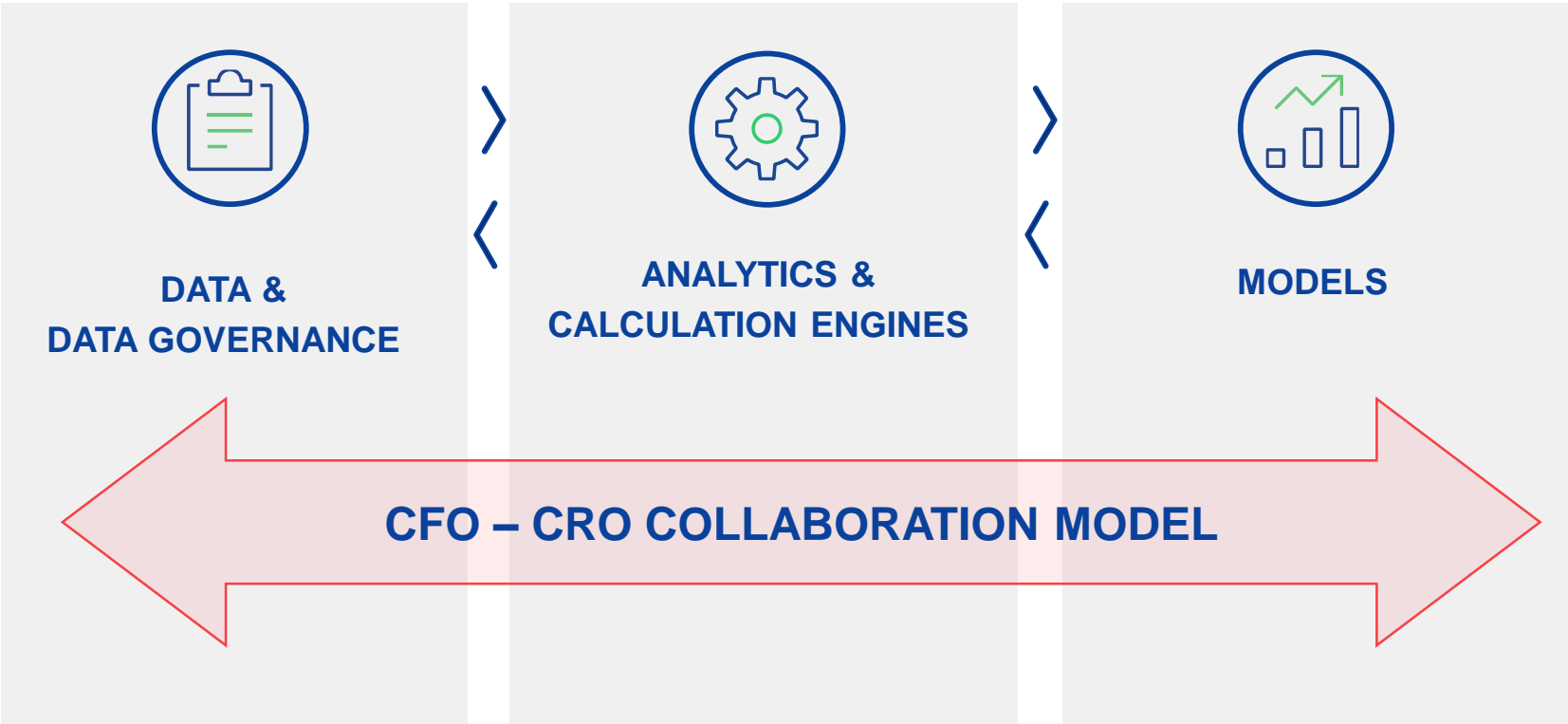
Sharing them is an unavoidable step to make possible an interconnected CRO & CFO framework, but requires a **strict coordination both in estimation phases** (hypotheses must be comprehensible and agreed by all the actors – downstream process that use model as an input must be shared before model selection & calibration) **and in model change phases** (all possible impacts must be managed)

**Priority is  
coherence &  
consistency**

# Towards a common ground for CRO & CFO

Strong need for a “collaboration model”

## Interconnections CRO & CFO



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- A new integrated framework for risk & performance management
- Towards a common ground for CRO & CFO : which challenges?
- **Conclusions**

# Conclusions

## Risk Managers: opportunities or threats? (1/2)

- Risk Managers in Europe in the last few years have been strongly “stimulated” by the external environment and by regulators / supervisors into enhancing their processes (data / tools / models)
- Planners, from our standpoint, have not experienced the same level of pressure, although more recently regulators / supervisors have turned their attention to them as well (i.e. funding plan, business model analysis, risk adjusted performance by business units, scenario analysis, etc.).

# Conclusions

## Risk Managers: opportunities or threats? (2/2)

Many Risk Managers invested more with regards to the set-up of B/S simulations engines, and in general to the adoption of advanced modelling techniques etc...

**OPPORTUNITY:** If Risk Managers will be willing to share, even accepting some degree of dependence to Planners, and this way will manage to lead, to influence, to set conditions the way the Planners will invest to cope with the new challenges they are facing...

**THREAT:** if new vertical architectures, in terms of data, engines and (simplified) models will be developed in the CFO area in an independent way... Risk Managers (and Planners) will end up investing a lot of time in reconciliations, having less resources to further improve their models / tools, and they might end-up being less involved in the strategic decisions

The Bank as a whole would duplicate processes and tools, be forced to implement complex and baroque collaboration models, and in the end will have to invest more and get less... a lose / lose situation.

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