



Accenture Risk Management
Counterparty Credit Risk Journey: key innovation factors and analytics

ABI Basel 3 - June 27-28, 2013

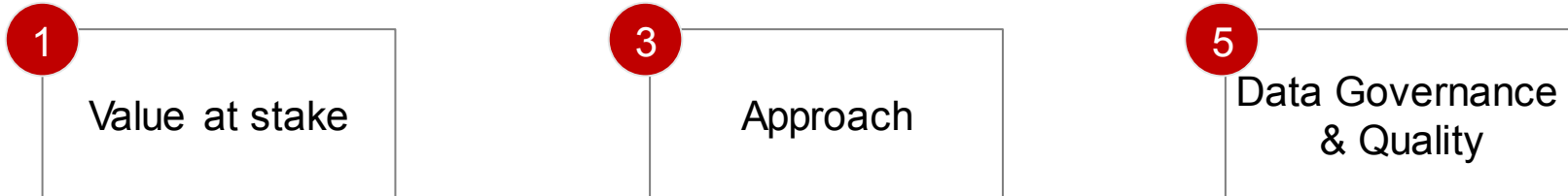
High performance. Delivered.


accenture

consulting | technology | outsourcing

Counterparty Credit Risk Journey

DNA of Innovation: steps of the journey



Value at stake (1/2)

Awareness, sponsorship, commitment

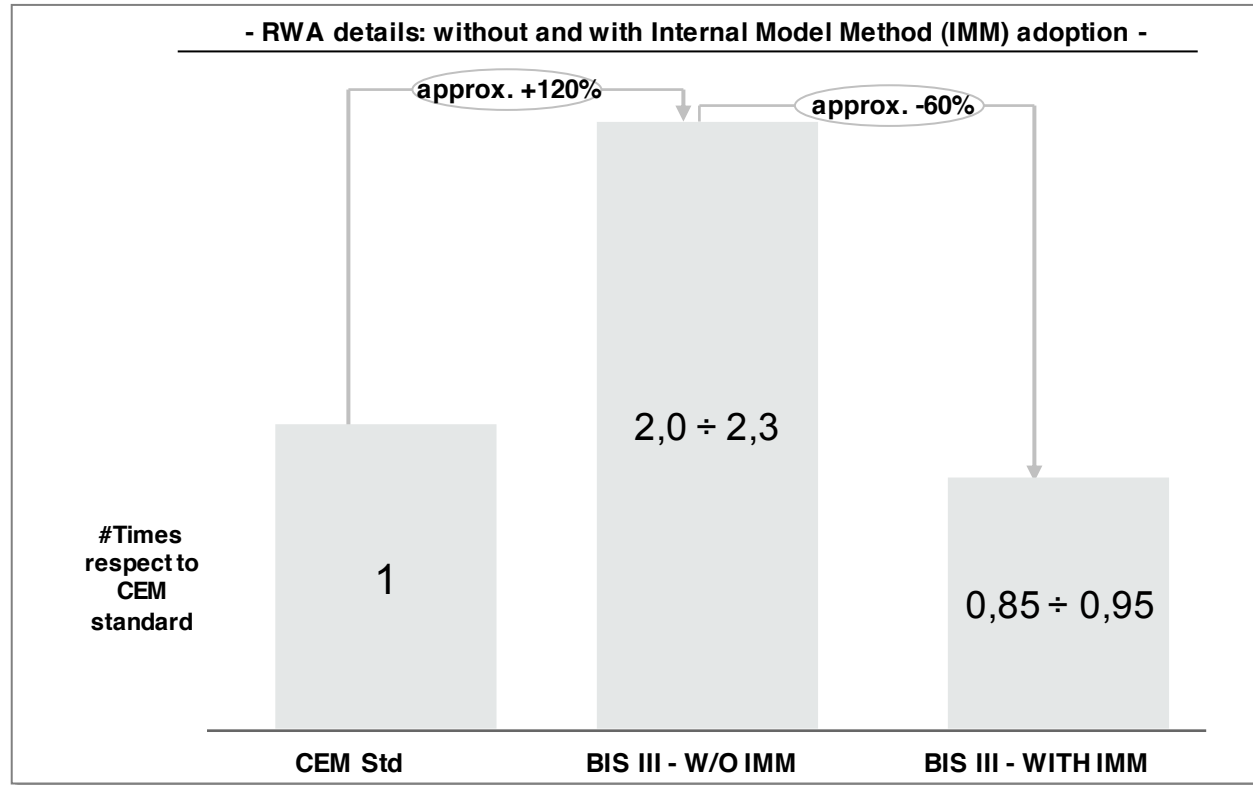
Key Pillars	Description
1 Understand real relevance	<ul style="list-style-type: none">Since Counterparty Credit Risk Regulation will affect mainly trading book portfolios, Banks should more effectively face the challenge
2 Estimate capital impacts	<ul style="list-style-type: none">Default charge has been increased and CVA capital charge has been introduced; dedicated business case to calculate the potential requirement in terms of RWA is mandatory to assess impacts and decide the best strategy to adopt
3 Estimate operational impacts	<ul style="list-style-type: none">Calculations for revised discipline and new measures will push improvements on processes and policies currently in place on Risk Management framework
4 Assess IT impacts	<ul style="list-style-type: none">New Internal Model Method measures will require innovative risk analytics and IT landscape: advanced and scalable solutions will require relevant investment
5 Define strategies to face impacts	<ul style="list-style-type: none">Banks could opt for:<ul style="list-style-type: none">- Current Exposure Method (CEM)- Internal Model Method (IMM) for exposure calculations, to better measure risk and reduce impacts on RWA

“Solid business case” to identify value at stake and ensure Top Management sponsorship and commitment for the implementation strategy

Value at stake (2/2)

Value at stake

ILLUSTRATIVE

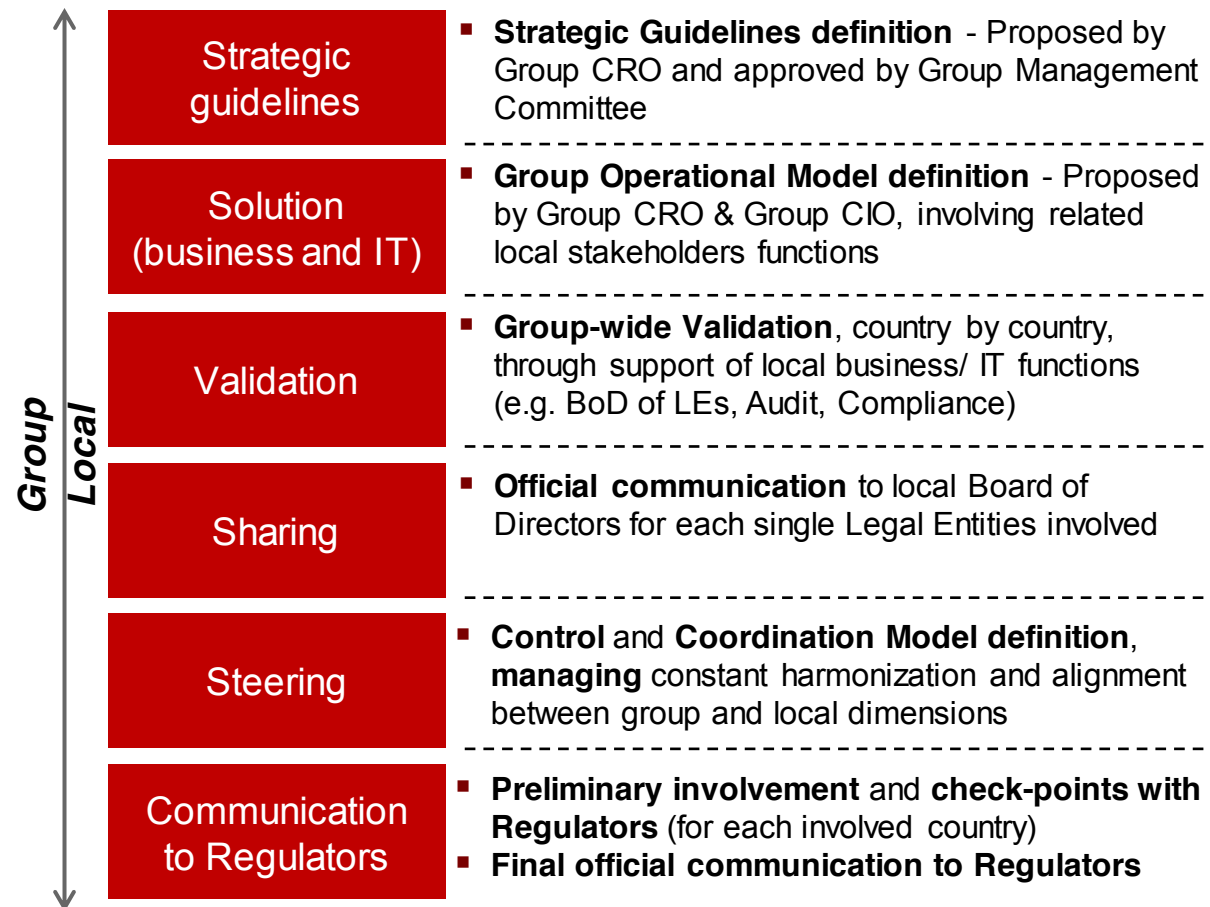


- Preliminary results on **Internal Model Method (IMM)** implemented in primary Banks could shed some lights about the **tremendous opportunity**
- Banks are promoting and developing IMM approach which needs to **sponsor dedicated multi-years program**

Governance Model (1/2)

Building the transformation program ...

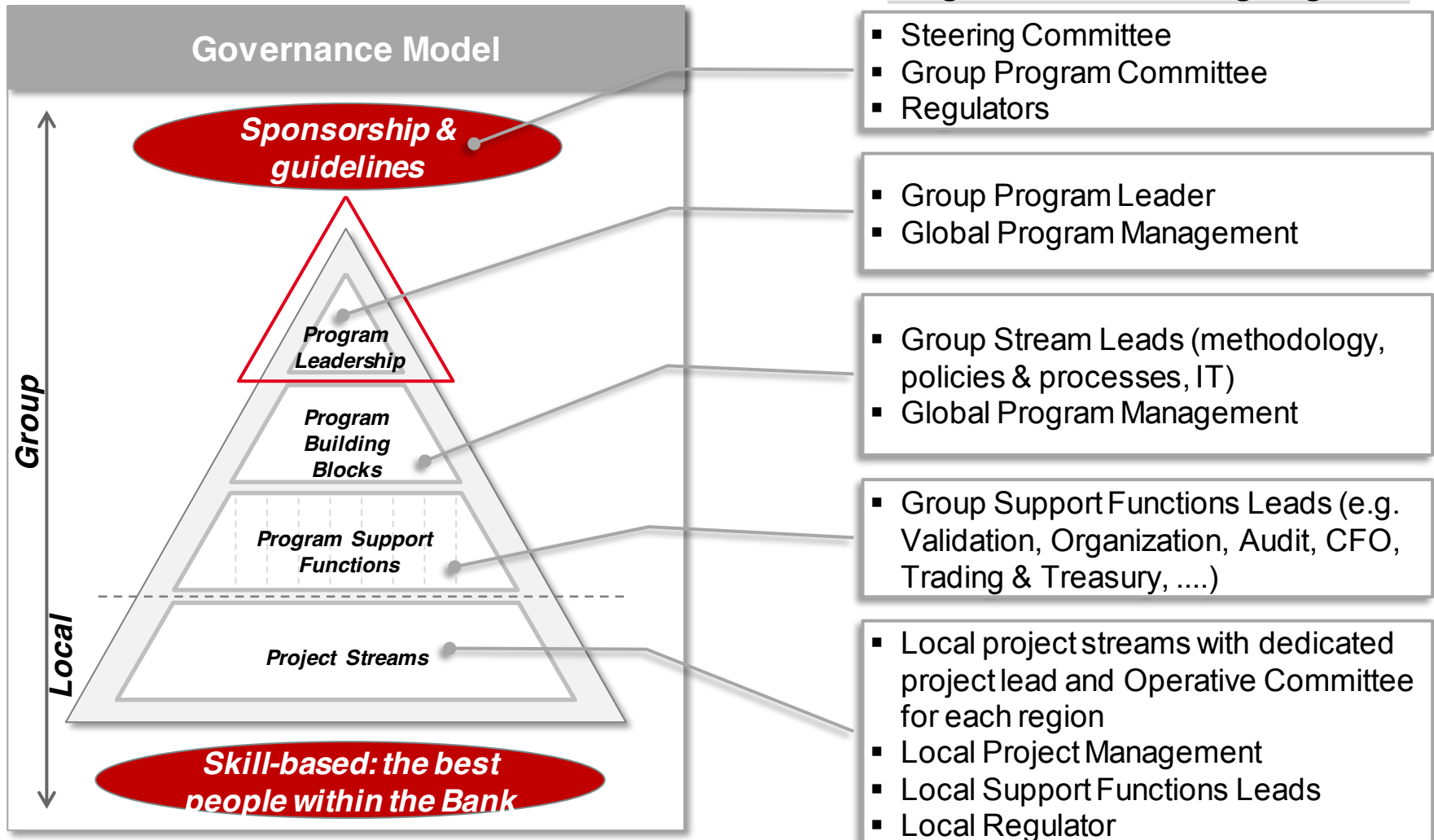
How to run **the transformation program**: steps, responsibilities, stakeholders



A robust Governance Framework is a key enabler factor for the journey success

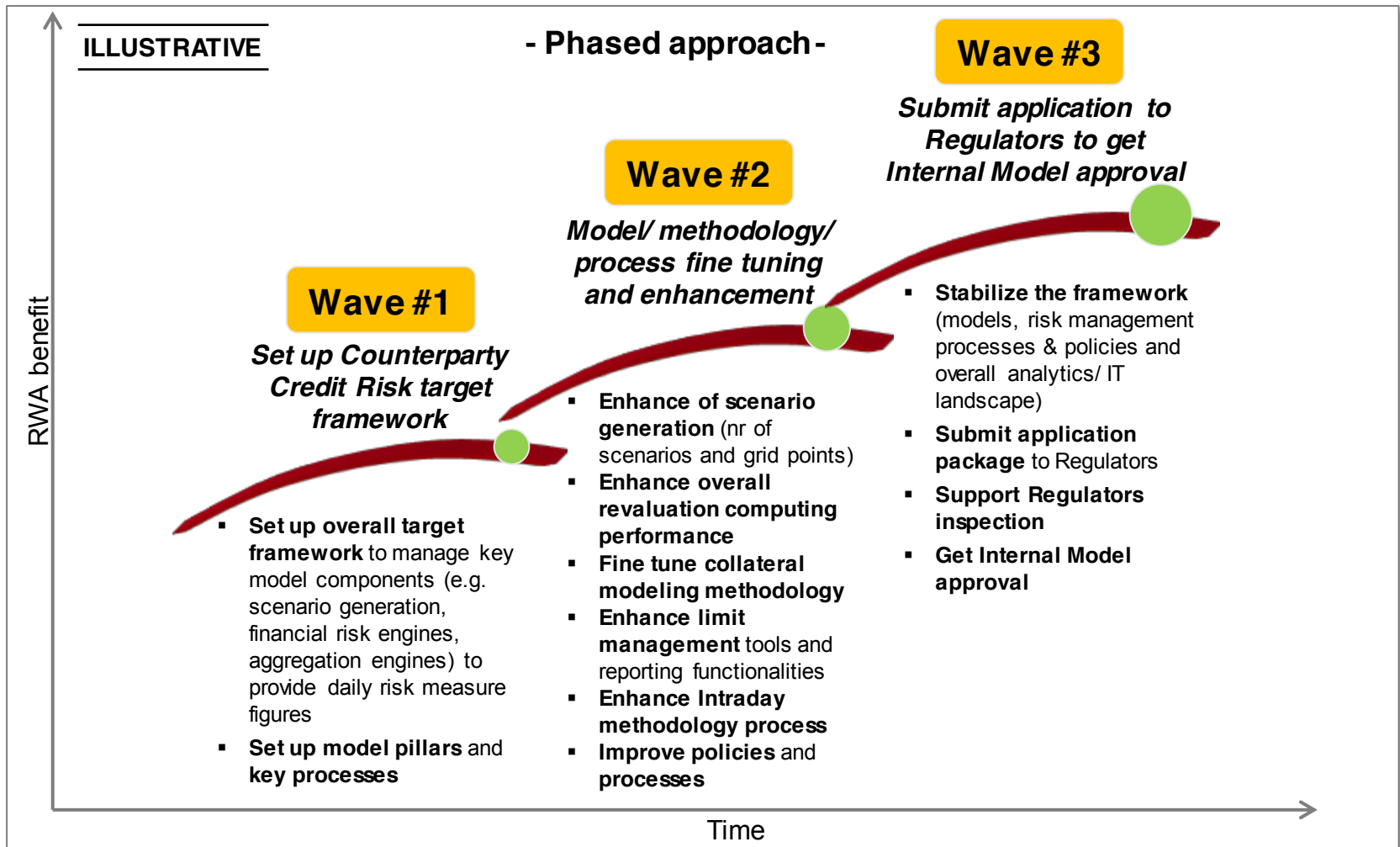
Governance Model (2/2)

.... through a Governance Model as a lever for innovation



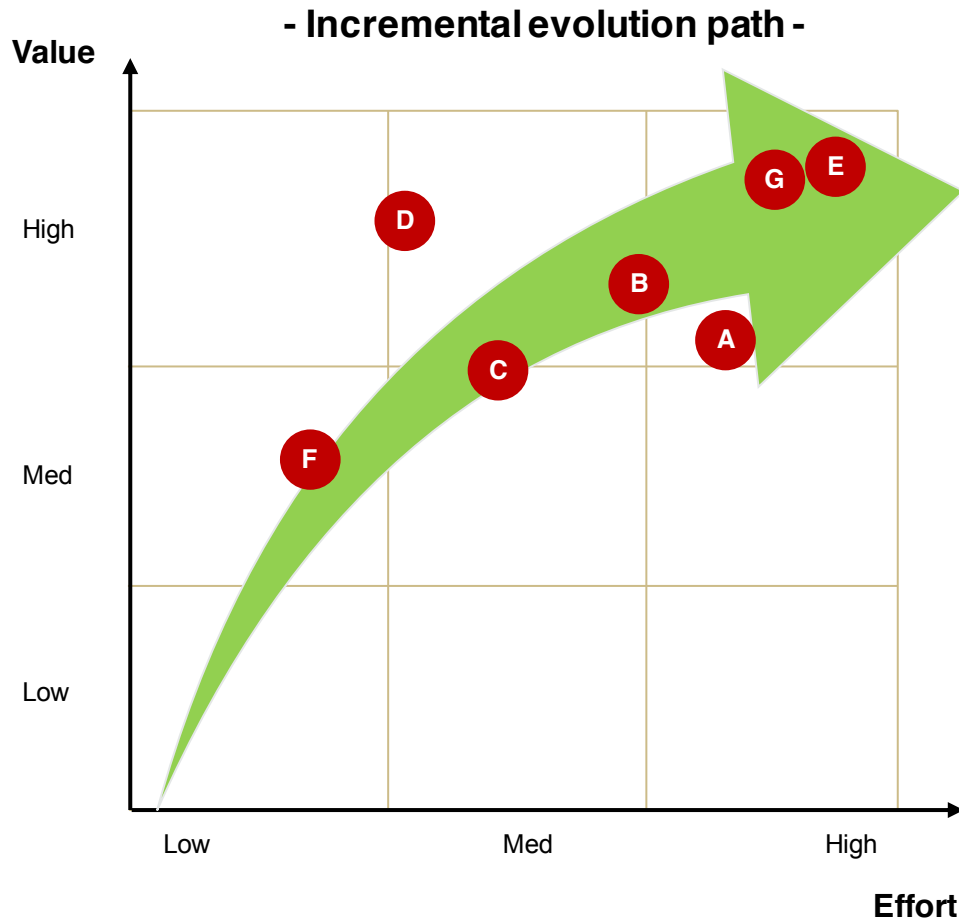
Approach (1/2)

Phased approach as key enabler for the design of the implementation strategy



Approach (2/2)

Real cases experience advises for incremental evolution path



- A** Fine tune methodologies/ models
- B** Fine tune processes, policies and applications
- C** Enlarge IMM product scope step by step
- D** Involve since the beginning of the program Regulators and exchange progressively implementation status and key results
- E** Consolidate step by step the risk analytics and IT landscape in order to gradually enhance the overall architecture and achieve required high performance
- F** Mitigate overall the risk of delay, phasing the delivery and focusing on real “quick wins” that allow the financial institutions to acknowledge changes
- G** Implement at different group levels group-wide methodologies/ analytics, processes, IT solutions to speed up delivery and grant homogeneous framework since the first step

Regulatory challenges

Structural challenges in Regulatory approval path

Highlights

Model design and implementation

- **Comprehensiveness of transactions scope** and selection of relevant risk factors and models
- **Optimization of quality and stability** over time coupled with calibration of the models
- **Proof of conservatism** of the proxies considered and exhaustive documentation of the models
- **Strict organizational separation** between model design teams and model validation teams

Operational use of models for internal monitoring


- **Consistency of the whole framework**, from the internal use of the models for risk monitoring purposes to their use for regulatory capital requirements calculation
- **Deployment of units** for the monitoring, control, analysis and reporting of counterparty credit risk that produce and validate managerial reports

Model validation and stress-testing framework

- **Implementation of a back-testing framework** analyzing not only a specific percentile
- **Rigorous methodology** for elaborating representative portfolios for simulation purposes
- **Implementation of a governance framework** in balance with the need to review the models periodically (such as a back-testing committee)
- **Elaboration of different types of stress scenarios**
- **Implementation of a stress-testing framework** to assess the general wrong way risk

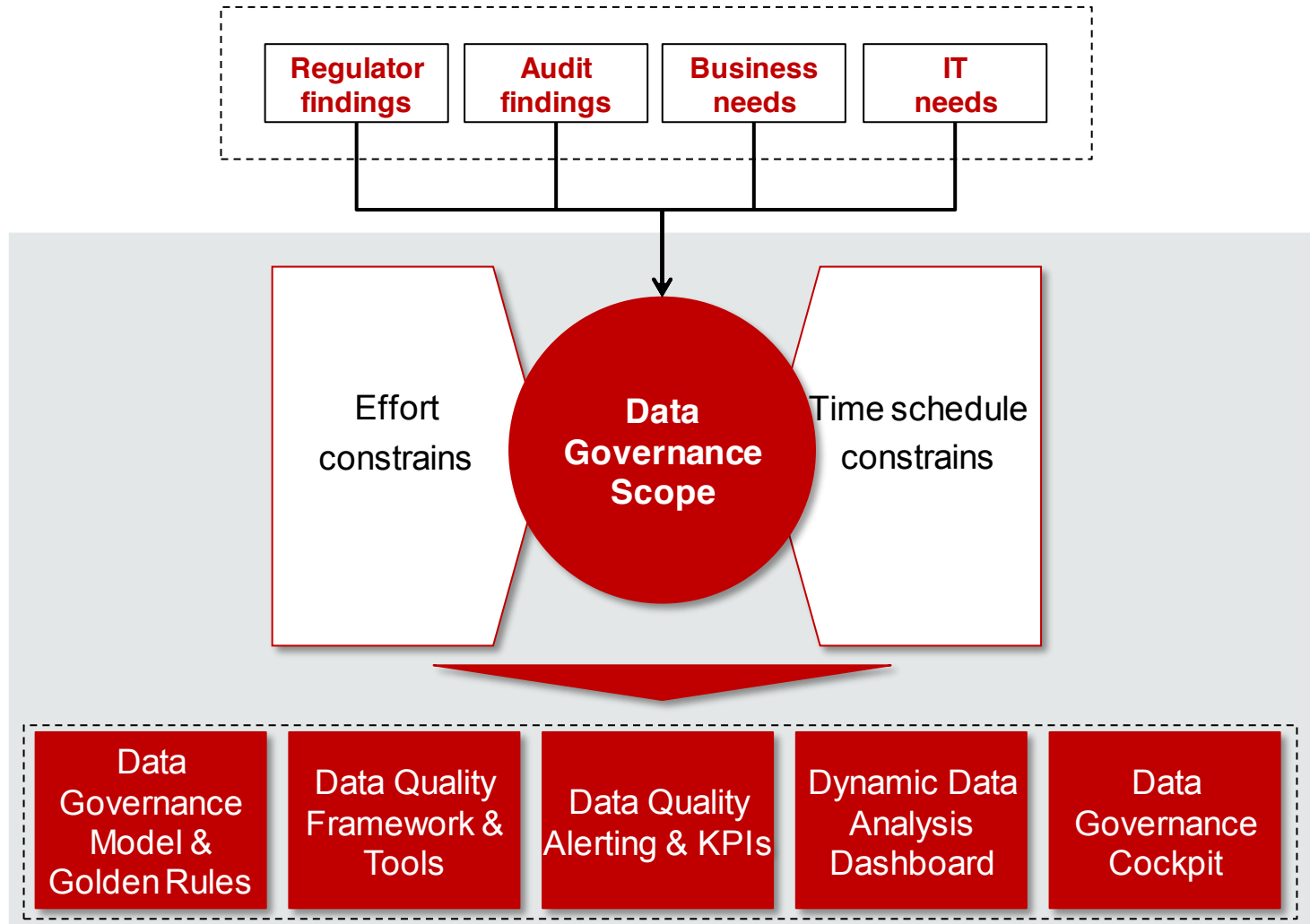
Data Governance & Quality framework

- **Comprehensiveness, integrity and accuracy of transactional, netting and collateral data**
- **Comprehensiveness and historical depth of market data**
- **Quality and depth of historical data** used for **the back-testing procedure**
- **Operational framework and organization** for detection, diagnosis and correction of discrepancies

 *Focus on following slides*

Data Governance & Quality (1/3)

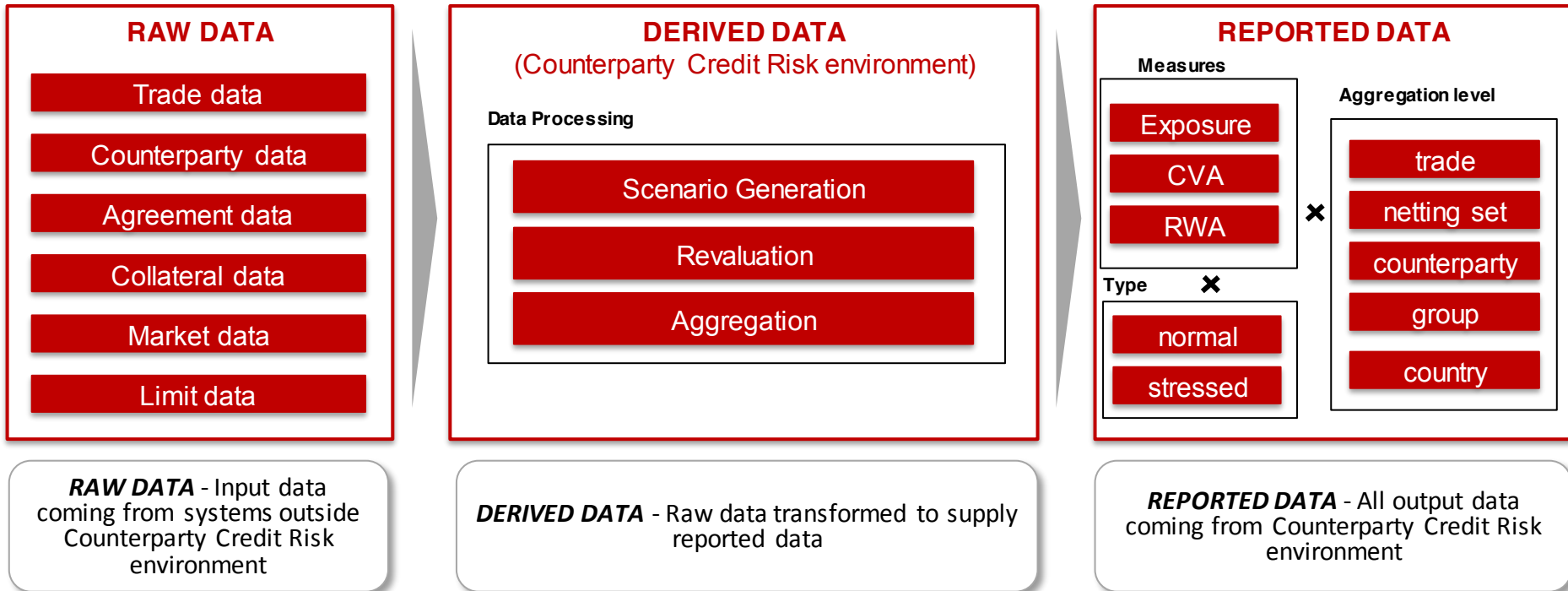
Overview



Data Governance & Quality (2/3)

Focus on Counterparty Credit Risk landscape

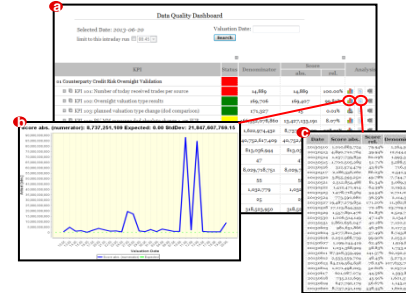
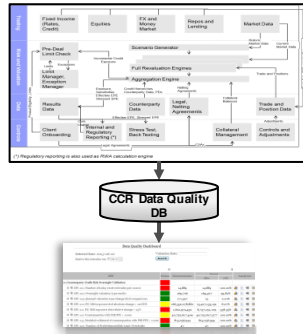
Data Governance Model and Golden Rules



Data Quality Drivers: integrity, consistency, accuracy, completeness, validity, uniformity

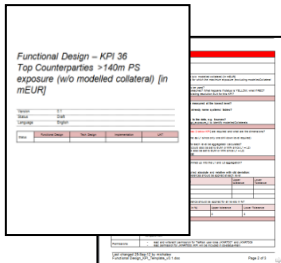
Data Governance & Quality (3/3)

Data quality process example



Business Requirements

Collection of specifications by business and IT users

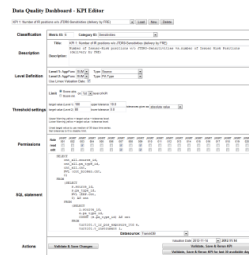


Data Collection

Collection of data from golden sources and other IT Risk architecture components

KPI Definition

Design and implementation of DQ KPIs

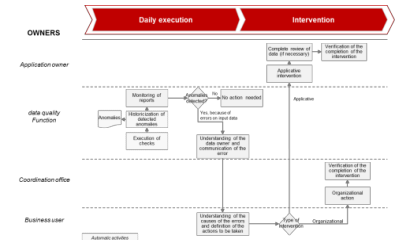


KPI Monitoring

Monitoring of KPIs levels and comparison with thresholds

Issue signaling

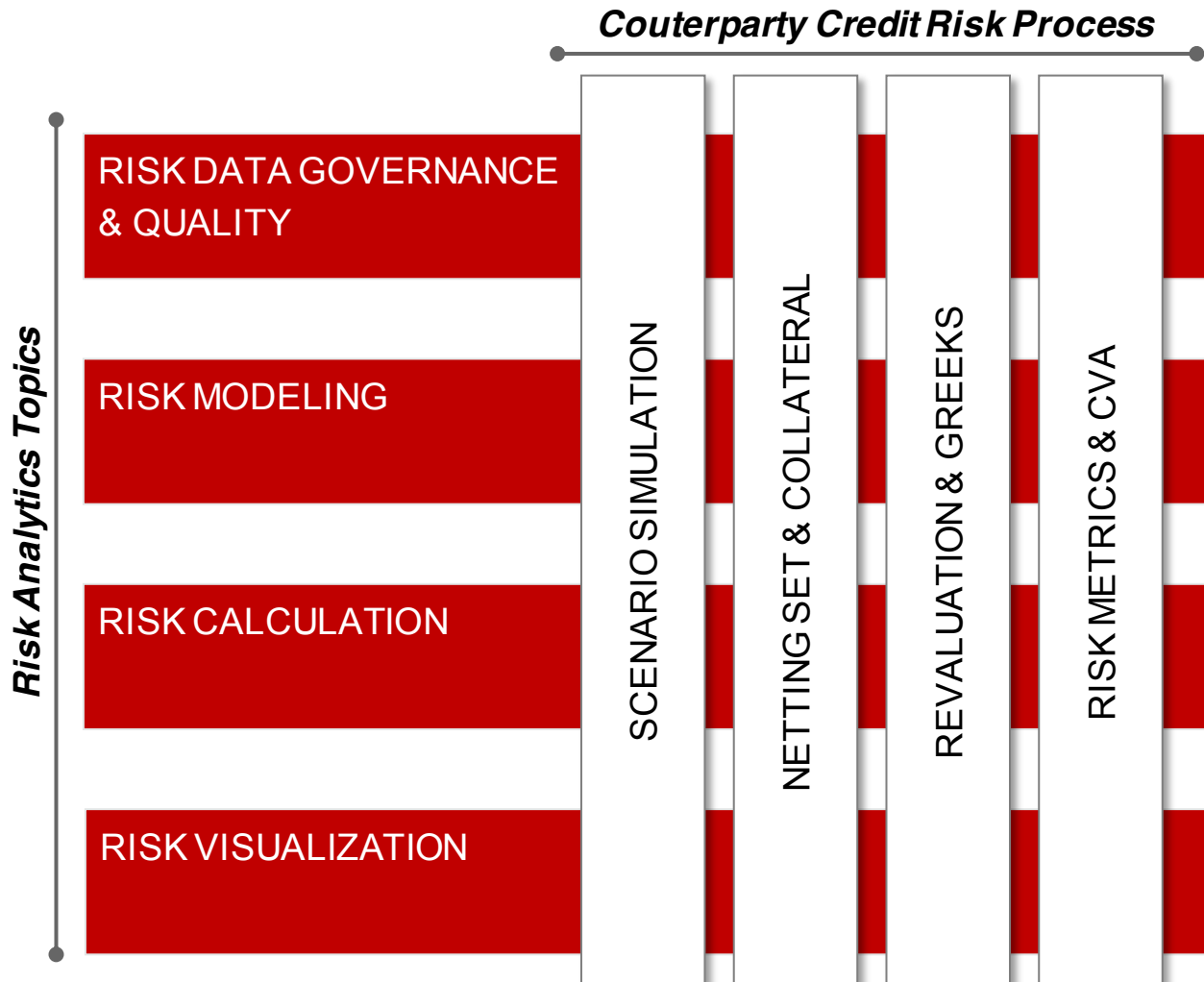
Reporting of potential issues and support to root cause analysis



Risk Analytics (1/4)

Counterparty Credit Risk and Analytics

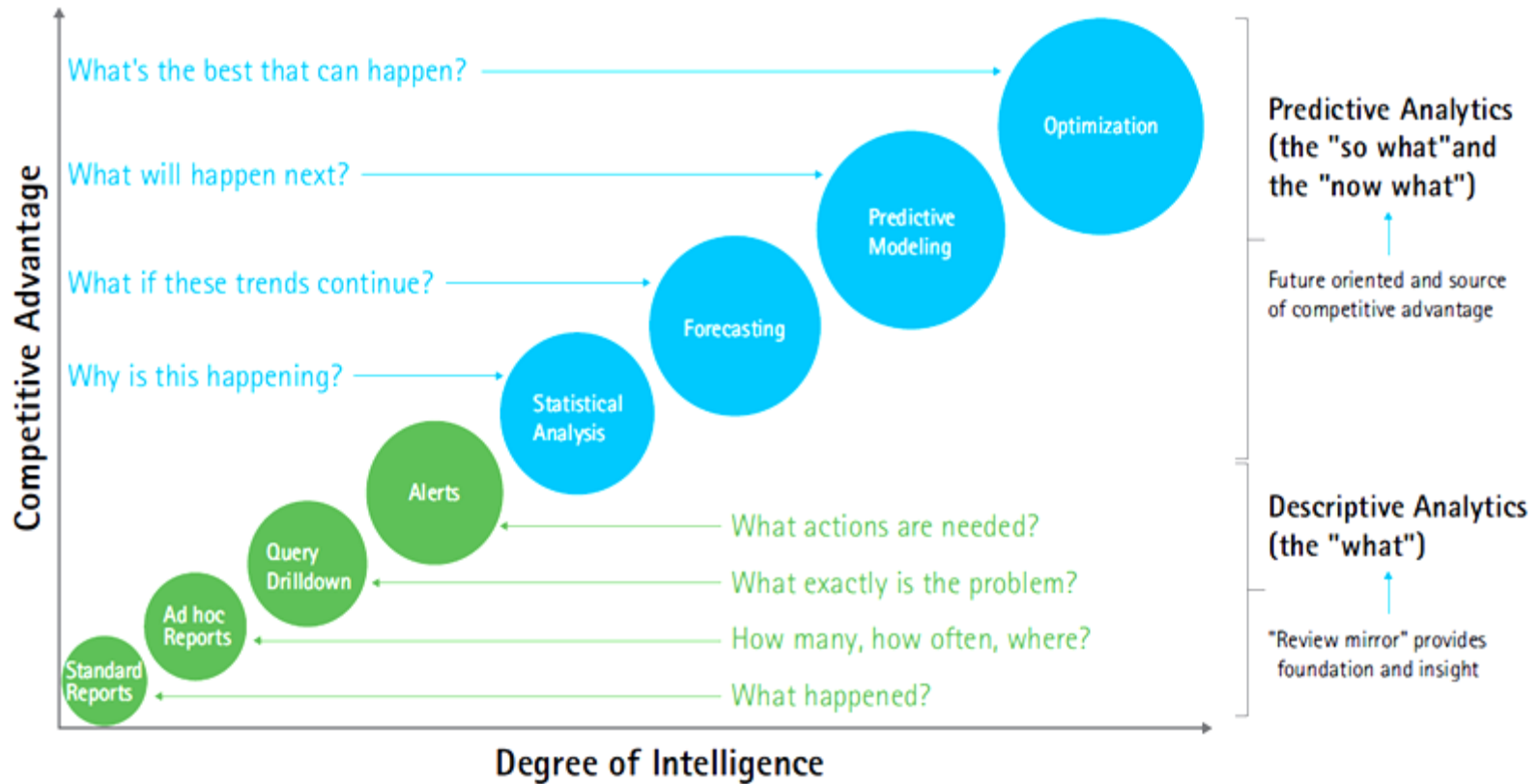
CONCEPTUAL



- Data Governance & Quality is a first step to achieve a Risk Analytics Strategy
- Counterparty Credit Risk Modeling and Calculation complexity need a high performance IT Platform based on new technologies and approaches
- Analytics Approach enables a robust group-wide and multi-dimensional reporting as well

Risk Analytics (2/4)

Analytics Overview



Analytics enable effective use of data, statistical and quantitative analysis, to drive decisions for better business outcomes

Risk Analytics (3/4)

Risk Analytics Technology and Data Velocity

ILLUSTRATIVE

Issue

Much higher computational requirements due to:

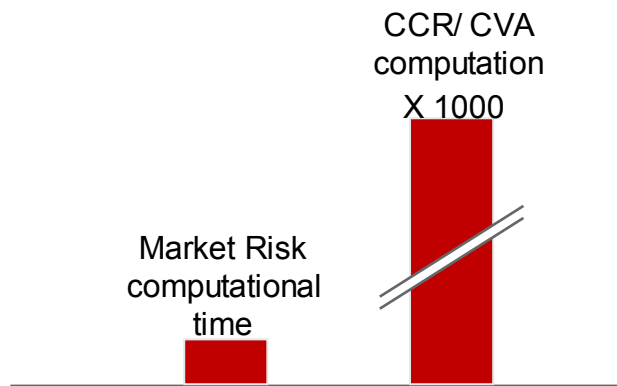
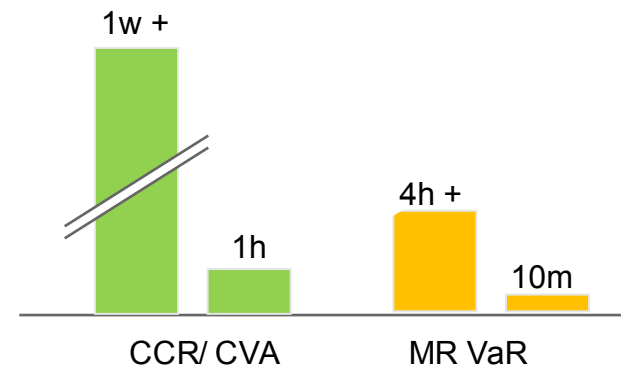
- 50-150 time steps
- up to 5,000 scenarios at each time point (Monte-Carlo based)
- Real-world and risk-neutral runs for PFE and CVA calculation
- Sensitivities required for hedging purposes
- Near-time pre-deal check functions needed with extremely short response times from valuation and aggregation engines (on netting-set/counterparty level)

Technology Solution



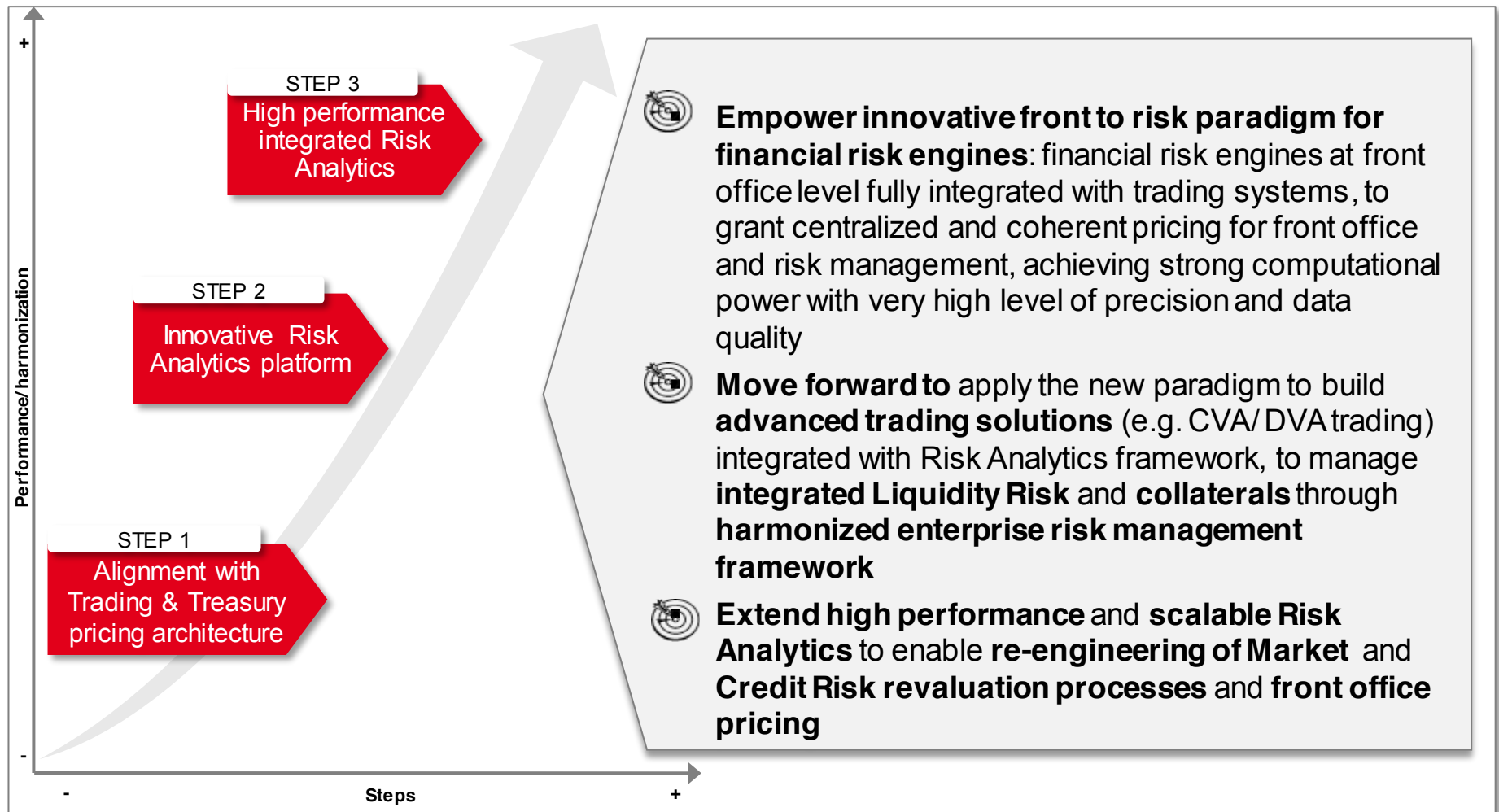
Potential Benefits

Time to elaborate Value at Risk and Credit Counterparty Risk



Risk Analytics (4/4)

Counterparty Credit Risk Analytics: new paradigm for other risks



Conclusion and lesson learned

Basel 3/ CRD IV Regulation is going to clearly change Counterparty Credit Risk management paradigm in the Financial sector. Financial Institutions are facing a huge strategic challenge on both Business and IT side.

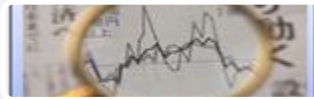
In order to be ready for the new paradigm, Financial institutions needs to:



Put in place a clear strategy and involve best talents



Launch dedicated transformation program with innovative holistic approach



Define “phased approach”, with intermediate “quick wins” to enhance organically methodologies/ Risk Analytics/ policies



Ensure a strong partnership and collaboration framework between Business and IT, including external key stakeholders (e.g. Regulators)



Leverage on sophisticated methodology supported by dedicated risk management operational team



Leverage on advance Risk Analytics and IT capability on most advanced technologies considered as “best of breed” in the market



Apply strong governance model and organizational innovation

Thanks.

alberto.cocchi@accenture.com

enzo.barba@accenture.com

www.accenture.com