

Integrated Finance and Risk Architecture (IFRA)

1 2 3 Strategy/Governance

Strategy, roadmap & program management

- DWH strategy
- Stakeholder acceptance
- IFRA framework project
- Pilot projects
- Implementation of basic architecture
- Fundamental business and IT architecture
- Projects for subsequent IFRA implementation
- Design governance
- Data and functional migration
- Shutdown of old data management
- Setup of governance
- Operation of governance

Release coordination (IFRA and other projects) | Long-term commitment | Harmonized process models

Program management is the largest lever for efficiently designing and implementing an integrated financial architecture—in a positive and negative way.

Governance

Data users | Standards & guidelines | Change | Run | Data suppliers

Requirements | Data acquisition and processing

- BI strategy and standards
- Requirements management
- Data supply management
- Data quality management
- Metadata management
- Training and consulting

Change

Setup & framework | Conceptualization | Implementation | Run

1 Strategy & roadmap

- Objective/scope
- Roadmap/release plan
- Business case
- Group alignment

2 Program mgmt.

- Stakeholder
- Planning & financial control
- Project portfolio mgmt.
- Communication

3 Governance

- Change | Run
- Processes
- Organization & roles
- Methods & tools

4 Business architecture

Integrated financial control

Accounting | Regulatory | Management Accounting | Risk | Treasury

5 IT architecture

Architectural guidelines | Application and interface architecture | Infrastructure/system architecture

6 Business and IT conceptualization/implementation

Guidelines | Integrated data model | Reporting | Calculation engines | Integrated DWH | Data connection | Implementation

OBIM | DBIM | Modeling and parameterization platform | Data quality management | Metadata management

7 Migration

Conceptualization of migration logic | Master planning/migration script | Conceptualization of data transfer | Data migration and archiving

8 Testing

Conceptualization of testing framework | Conceptualization of module & integration testing | Test management & testing

9 Operation & Rollout

- Operational concept
- Training
- Handover
- Monitoring operation and issue handling
- Backup and recovery
- (Ad-hoc) reporting services
- End-user standard services
- Release management
- Change request management
- Optimization

7 8 Change

Migration

Project preparation | Concept/implementation | Training | Test and QA | Cut-over | Post-integration

Goals and framework | Objective | Implementation approach | Project plan | Cost estimate | Project organization | Project processes

Products/processes | Customizing and gaps | Integration architecture | Technical infrastructure

Migration architecture | Data preparation/DQM | Dismantling/deactivation | Cut-over preparation

Integration tests/final trials | Quality assurance

Cut-over management | Post-integration activities | Dismantling/deactivation

Testing

Planning | Specifications | Implementation | Documentation | Reporting | Completion

Special challenges | Key to success

- Lack of reproducibility
- Poor data quality
- Poor coverage of business aspects within testing
- High degree of automation
- End-to-end DQ reports with completeness and impact analyses
- Derivation of test cases based on test case matrices

4 5 6 Business requirements

Business requirements

Business Requirements for Risk | Business Requirements for Financial Controlling | Business Requirements for Finance (Euros)

Business harmonization

Harmonization of functions and methods

- Top-down approach for harmonization
- Reference models as basis
- Harmonization as business objective, not as technical challenge

IT architecture

- Consideration of future business and technical requirements
- Aiming at clear objectives
- Active dismantling of old DWHs

Business architecture

- Integration into current project landscape
- Detailed inclusion of business dependencies among blocks

Clear business and technical "superstructure" for long-term manageability of complexity and extensibility required

Change

Integration of information requirements across all financial control areas

Strict top-down approach in iterative loops harmonizes business requirements into an integrated business information model

Data landscape: Overview Business Information Model (OBIM)

Balance sheet and P&L | Business/contracts | Rating | Securities master | Products | Limit | Internal organization | Counterparty | Collaterals

Sectioning of data scope

Modeling package 1 | Modeling package 2

Business data model (Detailed Business Information Model, DBIM)

- Extensible with new requirements
- Common language in data glossary
- Clear and aligned terms (on field basis) for entire institution
- Understandable for business and IT departments
- Starting point for physical implementation

Metadata and data lineage

Defined metrics (KPIs) are decomposed into basis data

Business logic from methods supplies description for decomposition of metrics into basis data

Relation between basis data whose origin and processing provide necessary metadata for data lineage

End-to-end data quality management

Cross-system DQM | Support of heterogeneous system environments | Technical and business DQ rules | Various analysis options through graphical reporting

Technical implementation

Calculation engine framework

Modeling and parameterization framework for business developers

- Modeling of new banking products; implementation of new regulatory requirements
- Parameterization like various market interest rate scenarios
- Consistent methods across various financial control areas of a bank
- Homogeneous generation of cash flows
- Homogeneous calculation/valuation

Business expert | Financial mathematician | Person responsible

Present value | Periodic | Economic valuation | Risk-oriented portfolio valuation | Cash flows

- Proprietary business, trading
- Present value, periodic

Data quality management

Supports complete DQ control cycle on various system layers

- Meaningful, multidimensional reporting
- End-to-end monitoring of data quality across system boundaries
- Causal, impact and time series analysis
- Connection of bank-specific KPIs to incoming data quality

Aggregated DQ status | Detailed DQ status | Manual data corrections