



Meeting the Basel II solvency requirements (IRB approach) for Volkswagen Bank GmbH – mayato implements solution with SAP BI

Management summary:

Goals

... Meet the Basel II requirements for determining the solvency key figure according to the foundation internal rating-based (FIRB) approach and the standardized approach for operational risks with SAP BI

... Set up a standardized complete portfolio with all relevant information

... Calculate the risk-weighted assets as well as the expected loss and the capital adequacy requirement

Approach

... Use SAP BI as a central instrument for incoming data, data verification, improving data quality, and formatting data to generate reports

Result

... Automated data staging of the homogenized complete portfolio with excellent data quality
 ... Rapid calculation of all the key figures and characteristics required for reporting according to the Solvency Regulation

› Basel II

The New Basel Capital Accord (Basel II) aims to strengthen the security and solidity of the banking system. In Germany, the Basel II requirements are substantiated in the German Banking Act, the Solvency Regulation, and the Regulation Governing Large Exposures.

› The challenge of meeting Basel II requirements

Most banks and financial service providers face tremendous IT challenges when implementing the Basel II requirements. These range from data retrieval, monitoring and – if necessary – improving data quality, through to consistent staging, presentation, and sustained assurance of the availability of the results to be reported.

“With this project, mayato has again proven its reliability. Excellent service combined with great customer focus are what makes this team so outstanding.”

Bernhard Mattmueller
 Volkswagen Business Services GmbH
 Head of Enterprise Management
 and Support Systems

› Integration of all tangible subportfolios

In terms of the implementation, the biggest challenge is to gather the data from the many foreign branches in a standardized format – or to homogenize it upon receipt – and then, using this data, to generate a common and unique (!) contract portfolio for the bank. The greater the number of countries involved, the higher the probability that there will be problems with data quality.

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› The architecture

Based on SAP BI, mayato implemented an architecture for Volkswagen Bank GmbH that enables the data required by the Solvency Regulation to be calculated for the foundation IRB approach. A distinguishing feature of this architecture is that the current complete portfolio of the bank is stored in a single, regularly updated data provider.

› The complete portfolio at a glance

This central point of access for reports makes it possible to analyze in detail all subportfolios classified as tangible. Upon loading, a complex set of rules determines how the data originating from different places is to be handled in order to ensure the required degree of data quality through homogenization.

“The implemented architecture is central to our Basel II solution. The close cooperation between the mayato team and the internal employees at all stages of the Solvency Regulation project assured the project’s success – despite the fact that requirements were constantly changing.”

Dr. Karl Teille
Volkswagen Business Services GmbH
IT Program Manager Basel II
Head of I-SEM Control Systems

› Semantic data check upon loading

To achieve consistently high data quality, the plausibility of the individual data records is ensured using semantic checks as soon as the records are loaded into SAP BI. If datasets are identified as anomalous, the people who sent them are informed of this by an automatically generated e-mail and are asked to correct them.

“The IRB-approach architecture for the Solvency Regulation is also the basis for performing first-class stress tests. Only due to the great commitment and BI expertise of the mayato team was a successful implementation possible.”

Gerald Krieg
Volkswagen Business Services GmbH
Subproject Manager Basel II Solvency

› The computational kernel

Additional data providers make available further data that is relevant for determining key figures, such as collateral or IRB parameters. The key figures based on this information are calculated in a computational kernel specially developed for this purpose. In this kernel, the risk-bearing assets of the relevant contracts contained in each subportfolio are determined for each subportfolio individually. This approach has the advantage that the required information for the different contract portfolios can be provided very quickly, while, at the same time, data quality is exemplary.

“Mr. Heeren and his team tailored the computational kernel precisely to our needs. It takes account of bank specifications and thus helps us to keep to a minimum the work involved in generating reports.”

Andre Heuchert
Volkswagen Bank GmbH
Head of Banking Supervision and Reporting

› Stress tests

With an enhancement of this solution, it will be possible in the future to perform first-class stress tests for the complete portfolio or for parts of it, in which outbound parameters for calculating the risk-weighted assets are changed absolutely or as a percentage and the resulting impact on the portfolio is then analyzed.

› Volkswagen Financial Services AG

Volkswagen Financial Services AG is headquartered in Braunschweig, Germany. With 6,100 employees worldwide and total assets of €52.31 billion in 2007, it is Europe’s leading automobile financial services provider.

› mayato’s SAP Expertise

mayato consultants have substantial experience with SAP implementations. Several mayato employees worked in SAP’s development and consulting departments for a number of years.

mayato provides a full range of services related to SAP NetWeaver BI: architecture and design, data warehouse modeling, roll-out strategies, application support and integration, and much more.

In addition to SAP NetWeaver BI, mayato offers consulting and implementation services for non-SAP BI technologies, as well as business consulting for analytical CRM, performance management, and other business and analytical topics. Furthermore, mayato supports its customers with the mathematical and statistical expertise required for correctly interpreting information and predicting future events. As a think tank, mayato analyzes current trends and innovations in the area of business intelligence and customer relationship management.