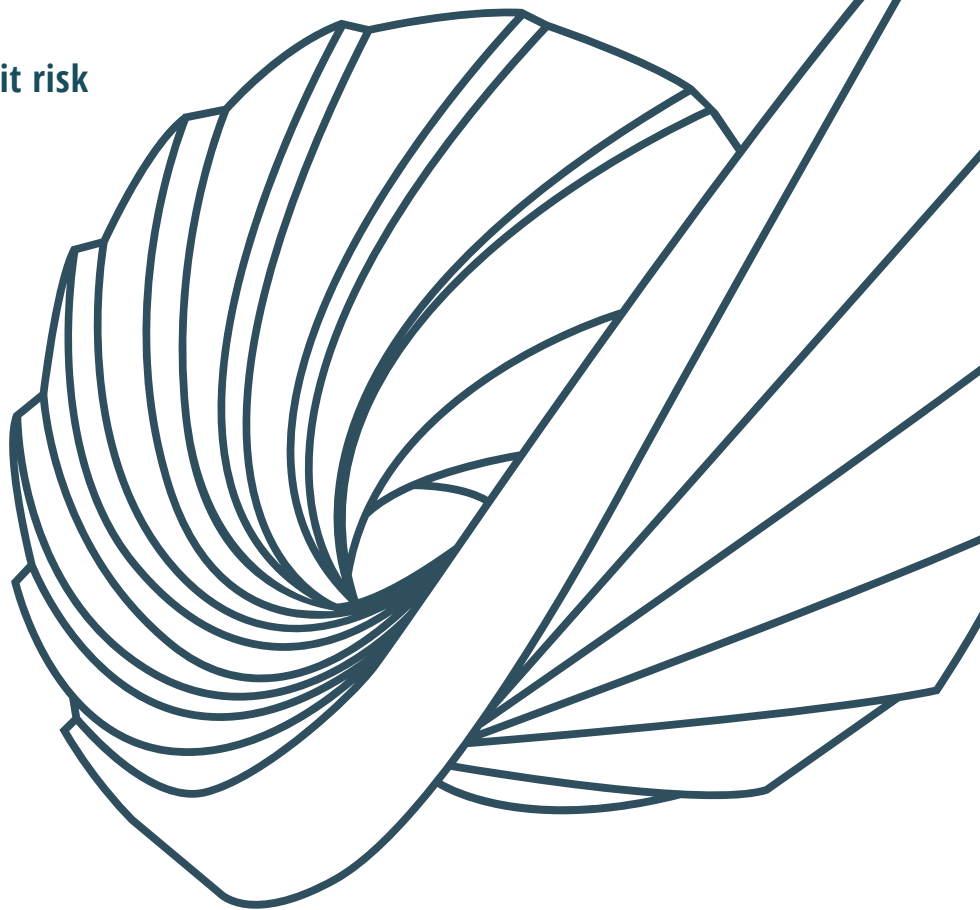


RISK GUARD

An early warning system for credit risk



RISK MANAGEMENT

Risk managers, portfolio managers and analysts rely on sound risk assessment for their investment and lending decisions. Risks also need to be monitored continuously. This requires processing a great deal of heterogeneous information.

A particularly important and accessible source of such information is capital market data. For smaller, unlisted companies, however, this kind of data is not available. News reports may fill the gap.

Risk Guard analyses both types of information, identifies risks and enables users to anticipate changes in the risk situation.

SCOPE OF APPLICATION

Risk Guard allows to identify and systematically process signs of increased credit risk.

It implements many models for predicting downgrades or defaults based on the following categories:

- > exchange-listed companies
- > unlisted companies
- > industry sectors
- > countries and regions

In addition, *Risk Guard* can be used to visualise and track warning signals from other systems for a truly comprehensive risk assessment.

Risk Guard can be used in all areas where increases in credit risk need to be identified as early as possible, for example

- > credit risk monitoring
- > risk management
- > portfolio management
- > asset management
- > treasury

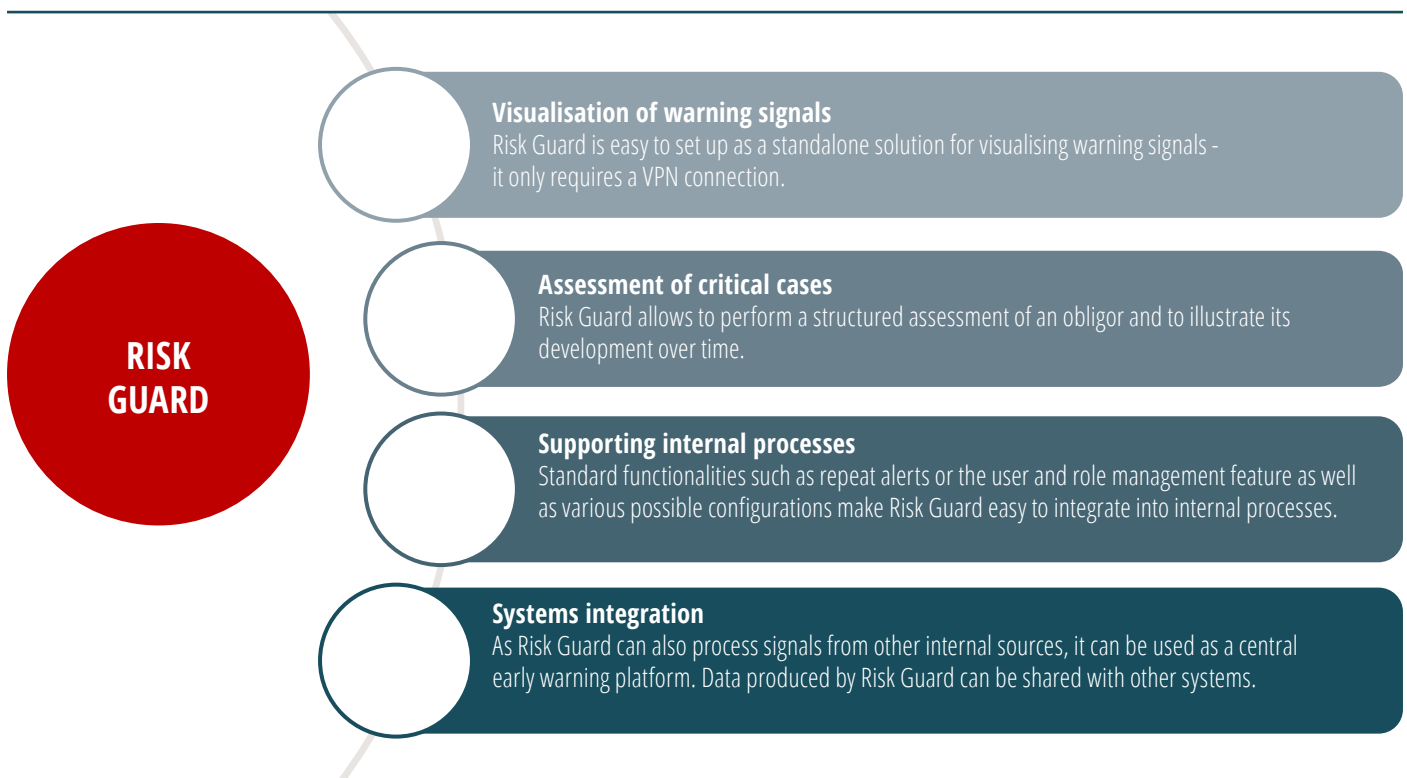


HOW RISK GUARD WORKS

Risk Guard computes risk scores for the selected entities on a daily basis. It predicts significant changes in creditworthiness and flags the obligors concerned so that analysts can take a closer look at them. Different quantitative methods are used according to the type of information available. Whereas the models used for assessing listed companies, countries, regions and industry sectors are multi-factor models based on (financial) market data, unlisted companies are analysed by means of a Merton-based model which combines industry-specific market data and financial statement information.

In addition, for German companies, both listed and unlisted, news-based models have been developed using advanced Machine Learning methods. German language news reports from all relevant sources are processed every day, which results in a risk score and possibly a warning signal.

RSU regularly validates all models and develops them further. A portfolio can be monitored and administrated via the Risk Guard user interface. Critical cases are systematically evaluated. The results of this evaluation can be clearly tracked over time.



IMPLEMENTATION

Risk Guard is an easy to set up system for identifying and administrating warning signals. Since it can also process signals from other, internal sources, it can even serve as a central early warning platform. Data produced by *Risk Guard* can be shared with other systems for comprehensive workflow integration.

ANTICIPATING INCREASES IN CREDIT RISK

Daily evaluation of capital market data and news reports facilitates investment and lending decisions and allows to monitor even large portfolios permanently. *Risk Guard* thus enables efficient and proactive risk management.