smart PM.solutions

WHITE PAPER

RISK MANAGEMENT AND -CONTROLLING

Risk Management System

Control opportunities & risks digitally and efficiently

I. Why is a risk management system (RMS) necessary?

The law on the control and transparency of companies (KonTraG) obliges companies to systematically monitor their risk situation and thus to **identify, analyze and evaluate undesirable developments in business processes at an early stage**. The German Stock Corporation Act (§ 91 Abs. 2/3 AktG) also requires listed companies to set up a monitoring system. **The aim is to be able to identify developments that endanger the continued existence of the company at an early stage**. Such "developments that endanger the existence of the company“ usually result from the combined effects of individual risks, which means that companies are obliged to carry out a risk analysis and risk aggregation on a regular basis.

Risk is understood to mean unfavorable future developments that can impair or even prevent the achievement of corporate goals or the successful implementation of corporate strategy. When there is great uncertainty, as in the case of the financial and corona crisis or the Ukraine war, the relevance of effective **risk management and controlling in the context of holistic corporate management** is particularly evident and requires a risk management system. However, this system does not serve to control risks, but also opportunities in particular.

"At its core, risk management is about performance management. Organizations / companies need an effective method and a pragmatic system in order to always know together (as best as possible) which risks are associated with the announced goals. Modern controlling becomes the "guardian of performance”, a vital function of sustainable corporate management, indispensable in dynamic and complex environments.“ **Rainer Lenz, Director Corporate Audit & Advisory Services bei SAF-HOLLAND SE**

II. An effective risk management system (RMS) in 5 easy steps

Current research and a look at practice show that the **efficiency and degree of professionalization of risk and opportunity management increases with the use of a suitable Corporate Performance Management (CPM) technology**[1]**.** This entails an embedding of risks and opportunities in the overall corporate management and a comprehensive decision-making basis for the management and results in an increase in corporate performance following the strategic corporate goals.

Figure 1 gives an overview of all the requirements for professional risk and opportunity managmenet[1]. Risk identification, recording, analysis, submission, risk and opportunity monitoring including dashboarding and reporting are covered in 5 simple steps.

Figure 1: The 5 steps of the risk management system from smartPM.solutions

Based on the latest corporate performance management (CPM) and BI technology, this smartPM risk management system maps each of these steps directly in the software with predefined, mature standard solutions. Other specific company requirements can be adjusted flexibly and quickly in the system.

Figure 2 shows the **integration of the 5-steps risk management model directly in the software in the form of a guided workflow including a role and access concept**.

[1] Bram Pieket Weeserik und Marco Spruit (2018), Improving Operational Risk Management Using Business Performance Management Technologies, in Sustainability 2018, 10, 640; doi:10.3390/su10030640

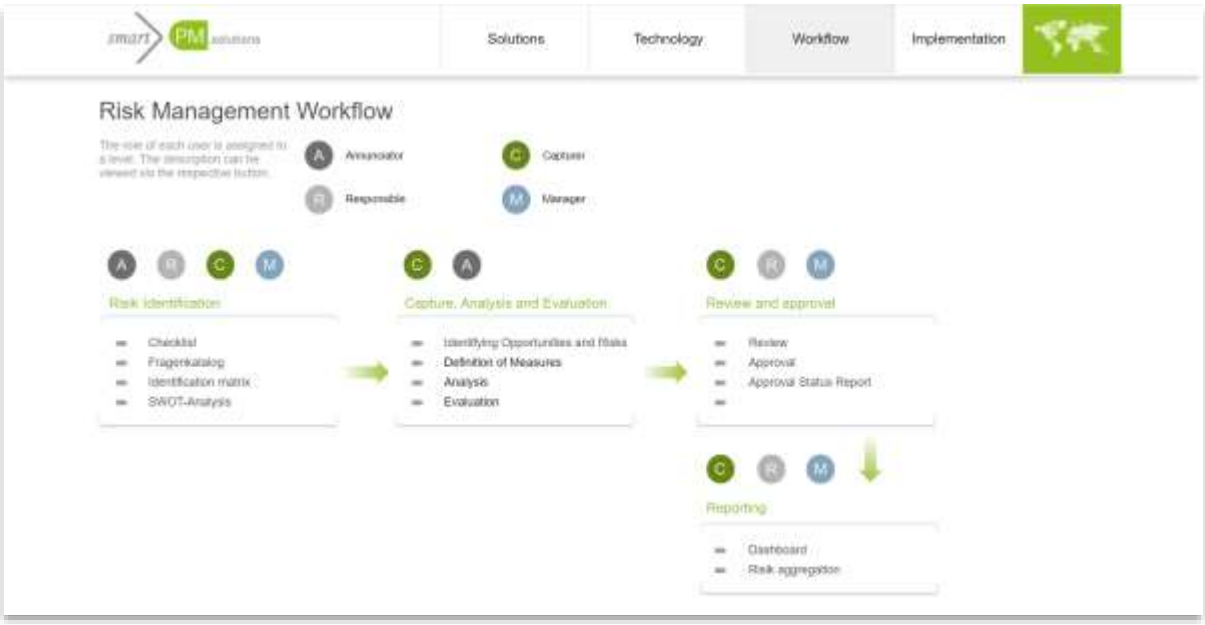

Figure 2: The smart risk management and controlling workflow including role and responsibility concept as well as reporting levels from smartPM.solutions

There are different **reporting levels** within risk management. Traditionally, risks, but also opportunities, are identified in local specialist departments, recorded and checked by local managers (e.g. by the respective site controlling). The global department management and the group risk management can access the risk directly in the system.

In this sense, the smartPM risk management workflow takes into account different **roles and authorizations:**

- **Recorder and/or reporter** – this person identifies a risk or opportunity and records it in the system in a standardized manner. Alternatively, in large organizations, reporters and recorders may be separate roles.
- **Responsible person** – the person whose area of expertise contains a risk or an opportunity. The person responsible checks the report and can then accept or reject it. In the process, sensible measures and initiatives are also defined in consultation with the reporting party/recorder.
- **Manager** – someone who is in charge of coordinating/monitoring the report in the company (Head of Controlling / Risk management)

Each of the 5 steps of the smartPM risk management workflow (see Figure 2) is discussed in more detail below.

1. and 2. step: Risk identification and recording

In many cases, **risk identification** is conducted in the respective specialist department. Purchasing, for example, reports strong price increases. Each risk is recorded in the system in a standardized way and released for assessment by the person responsible (see Figure 3). To facilitate risk identification, **customizable checklist, questionnaires, identification matrices and SWOT analyzes** can be used in the smartPM risk management system.

Every risk and every opportunity is recorded in smartPM risk management with a **unique ID**. During risk assessment, the risk applied must be describes in detail and initial measures proposed. In general, the **descriptions** should be designed in such a way that an uninvolved third party can understand them straight away. The individual steps and the current release status are clearly displayed in the system and ensure the necessary transparency.

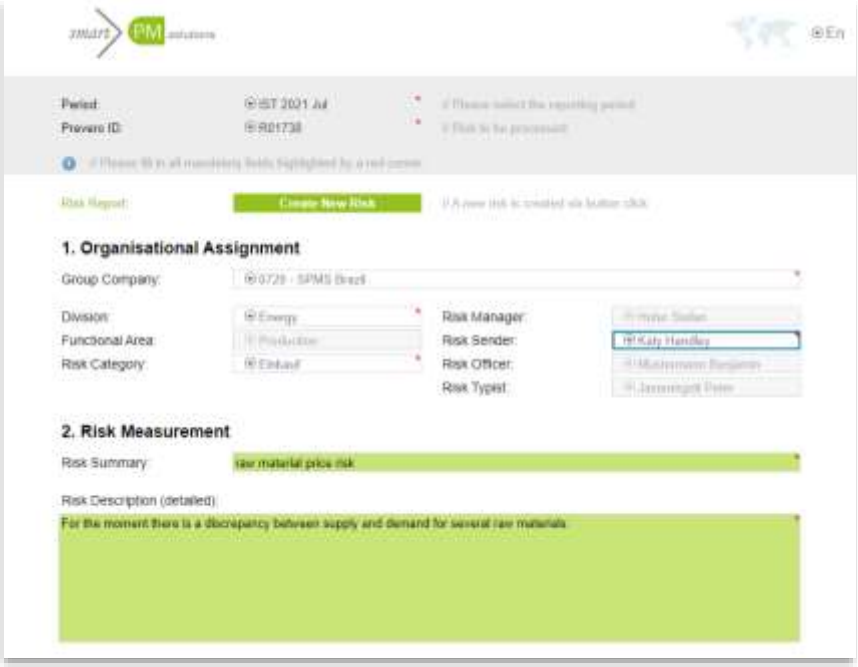

Figure 3: Standardized recording of risks and opportunities in the smartPM risk management system

3. Analysis, Evaluation and Submission

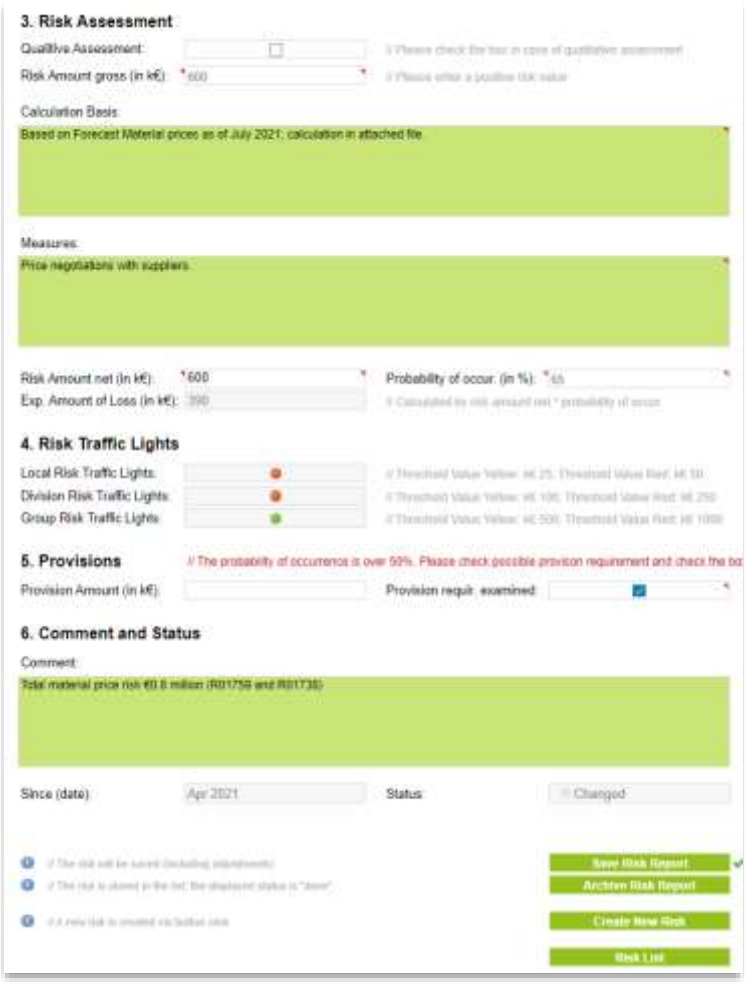

Figure 4: Risk and opportunity assessment and approval in the smartPM risk management system

The **assessment** can be quantitative or qualitative. However, a qualitative risk assessment should only be selected if a risk value cannot currently be determined. A **transparent calculation basis** for determining their risk value is essential here.

First, the risk is assessed in terms of its gross impact. Subsequently, defined countermeasures (possibly monitoring via your own measure ID) serve to reduce the risk value. The net risk value corresponds to the gross risk value after measure. If there are opportunities, the defined measures should lead to implementation.

Estimating the probability of occurrence is also important. **How realistic is the occurrence of the expected event?** If the probability is > 50%, it is imperative to check whether a provision needs to be made. If a provision is formed, the amount of the provision must be stated.

Finally, for documentation purposes, files (e.g. calculations, presentations, etc.) can optionally be attached for explanation.

Depending on the size and structure of the company, approval can take place in two stages: After local approval, the risks are assigned to the globally responsible department on the risk category. For example, the head of the corporate tax department only sees risks in the tax risk category. Thus, on the on hand responsibility is clearly assigned and, on the other hand, transparency is maintained for everyone involved. The submission to the next higher reporting level also means that no subsequent changes are possible on the release level (see Figure 5).

Figure 5: Central approval of risks and risk/opportunity overview

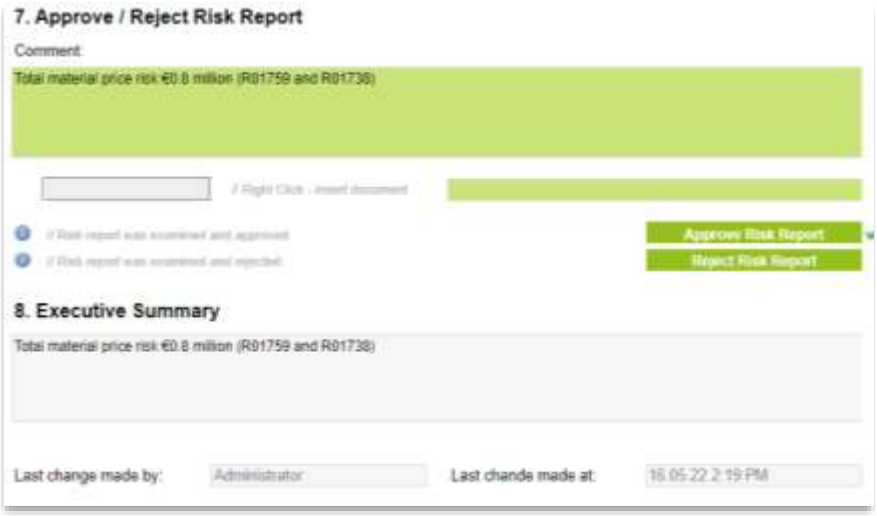

Figure 6: Accept/reject risk report

In the specialist department, the risk or the opportunity is **examined in terms of content**. The focus here is on the question "**Is it actually a risk?**". Furthermore, the risk assessment, the defined countermeasures and any provisioning are checked. The report is then accepted or rejected (see Figure 6). If a reported risk is only accepted or rejected by the head of department with changes, the risk recorder will be notified by email, including the reason. In order to always **keep an eye on the release status** and to comply with the documentation obligation, we keep a corresponding overview in the risk

management system. All those responsible for release are stored here with the respective notification status. If a notification is still outstanding, a reminder email can be sent directly (see Figure 7).

Figure 7: Release Status Report

4. and 5. step: Monitoring risks and opportunities with dashboard and standard reports

As part of the **risk aggregation** (new auditing standard from the Institut der Wirtschaftsprüfer / IDW PS 340), the overall risk exposure in the company is examined. The aggregation does not take place via a simple aggregation of the risk values, but via a stochastic progress (e.g. the Monte Carlo simulation). Interdependencies between individual risk or entire risk categories are also taken into account (see Figure 8). For example, a maximum risk value with a defined probability of occurrence can be read from the risk aggregate -> “The maximum risk value with a probability of occurrence of 97% us €25 million”.

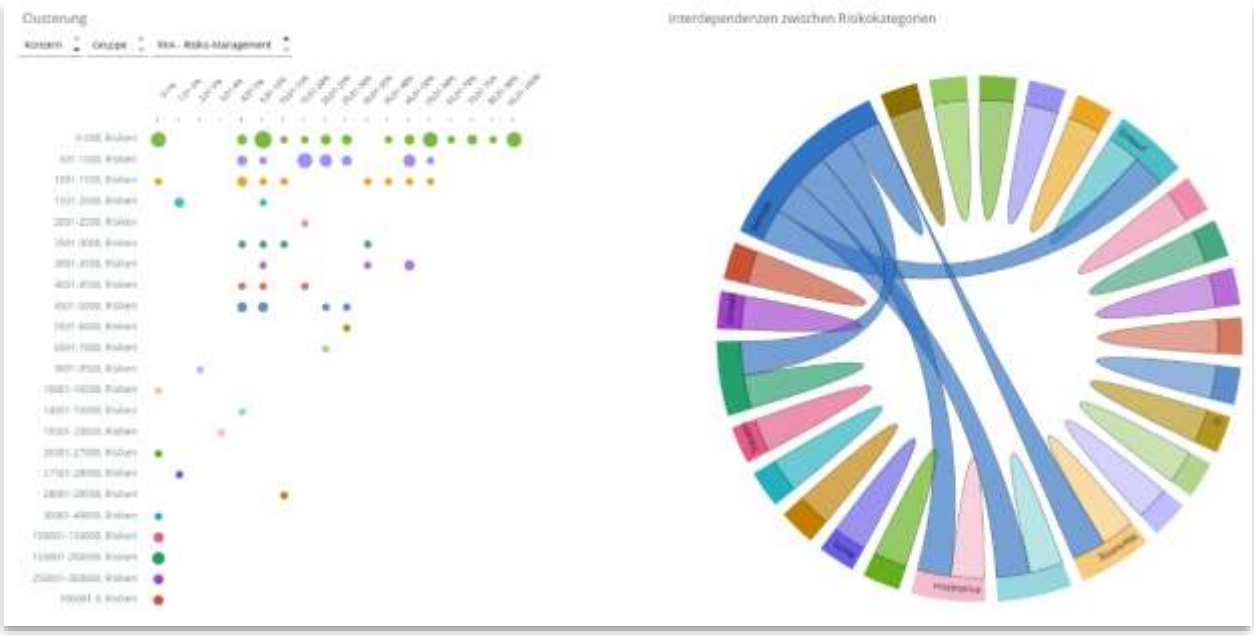

Figure 8: Risk aggregation – overview of risk clusters and interconnections of risks

The overall risk position determined is then set in relation to **risk coverage ratios** such as equity or net liquidity, so that a statement can be made about the company's risk-bearing capacity – keyword "developments that threaten the existence of the company" (see Figure 8).

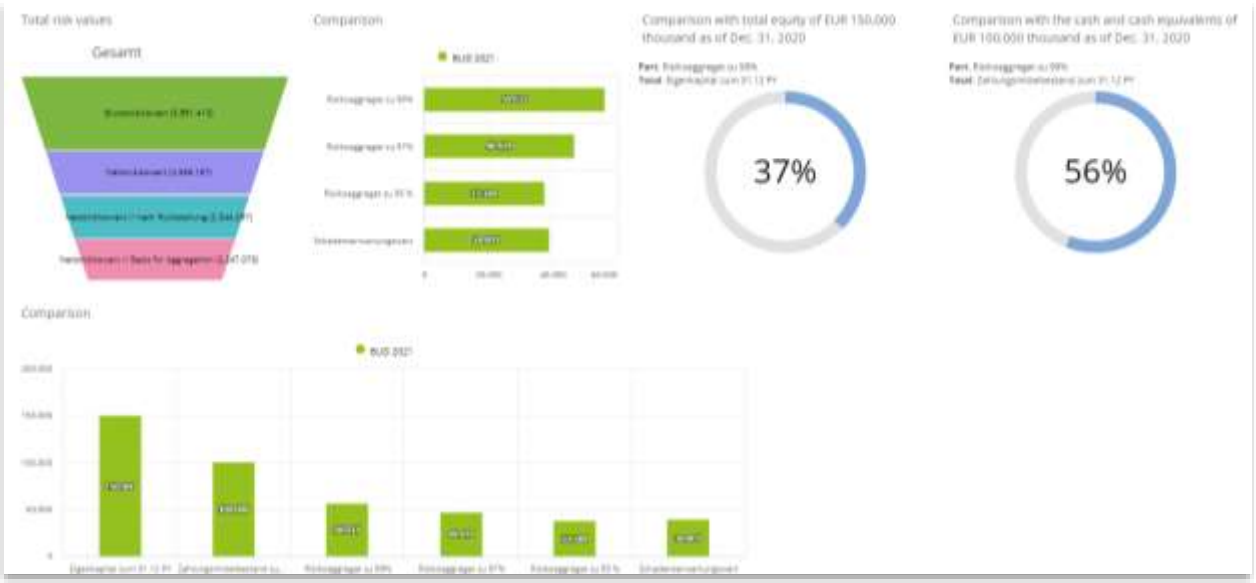

Figure 9: Risk aggregation - overview of risk values and the impact on liquidity

The smartPM risk management system is rounded off by a **management-compatible reporting dashboard.** This guarantees all reporting levels (e.g. companies, divisions, risk management, executive board, supervisory board) a uniform view of the current risk situation. The dashboard is based on **risk categories**. The main focus is on the changes compared to the last reporting period -> **"How has the risk situation developed?"** (see Figure 10). In addition, the person responsible keeps track of all initiatives that have been started to achieve goals (e.g. realizing opportunities, averting risks).

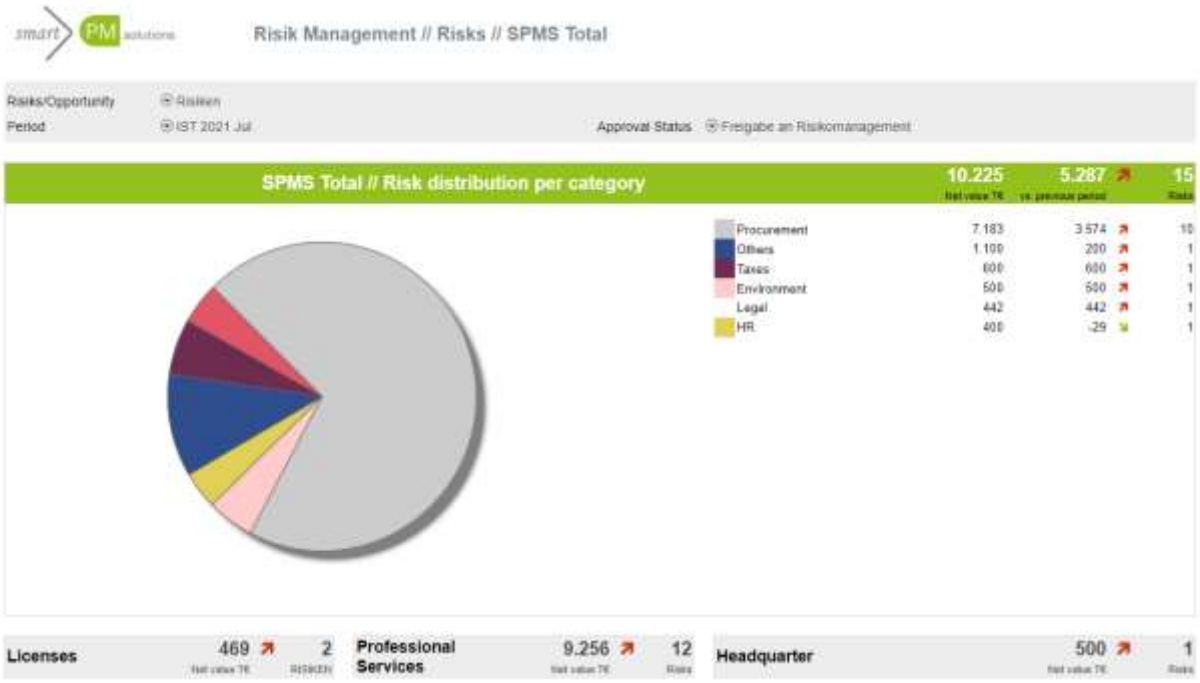

Figure 10: Risk dashboard / distribution per category including net value and comparison to the previous period

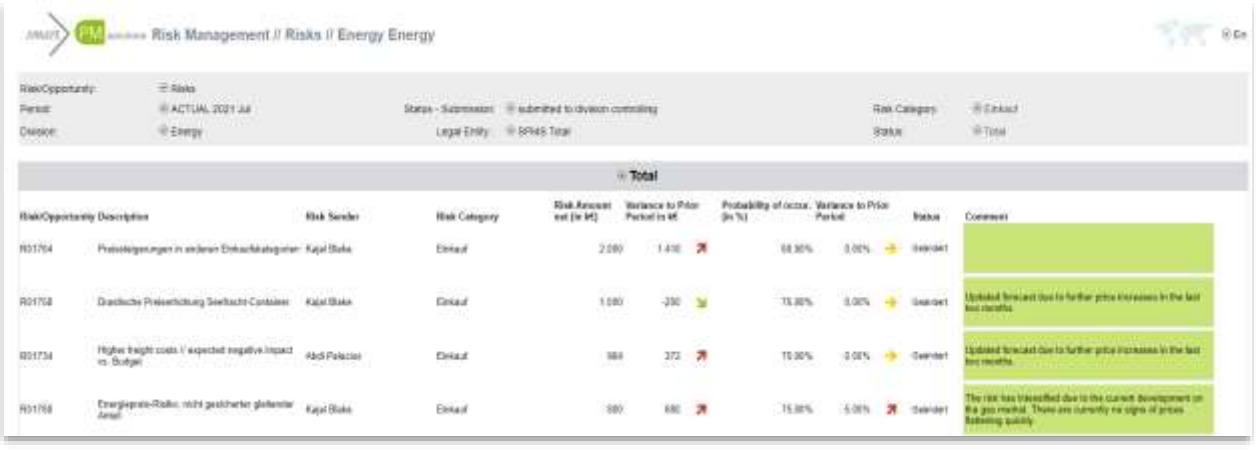

Figure 11: Risk Dashboard - Details on individual risks

Extensive **standard reporting at an aggregated level, with a drill-down option for individual risks**, provides a good basis for management decisions (see Figure 12).

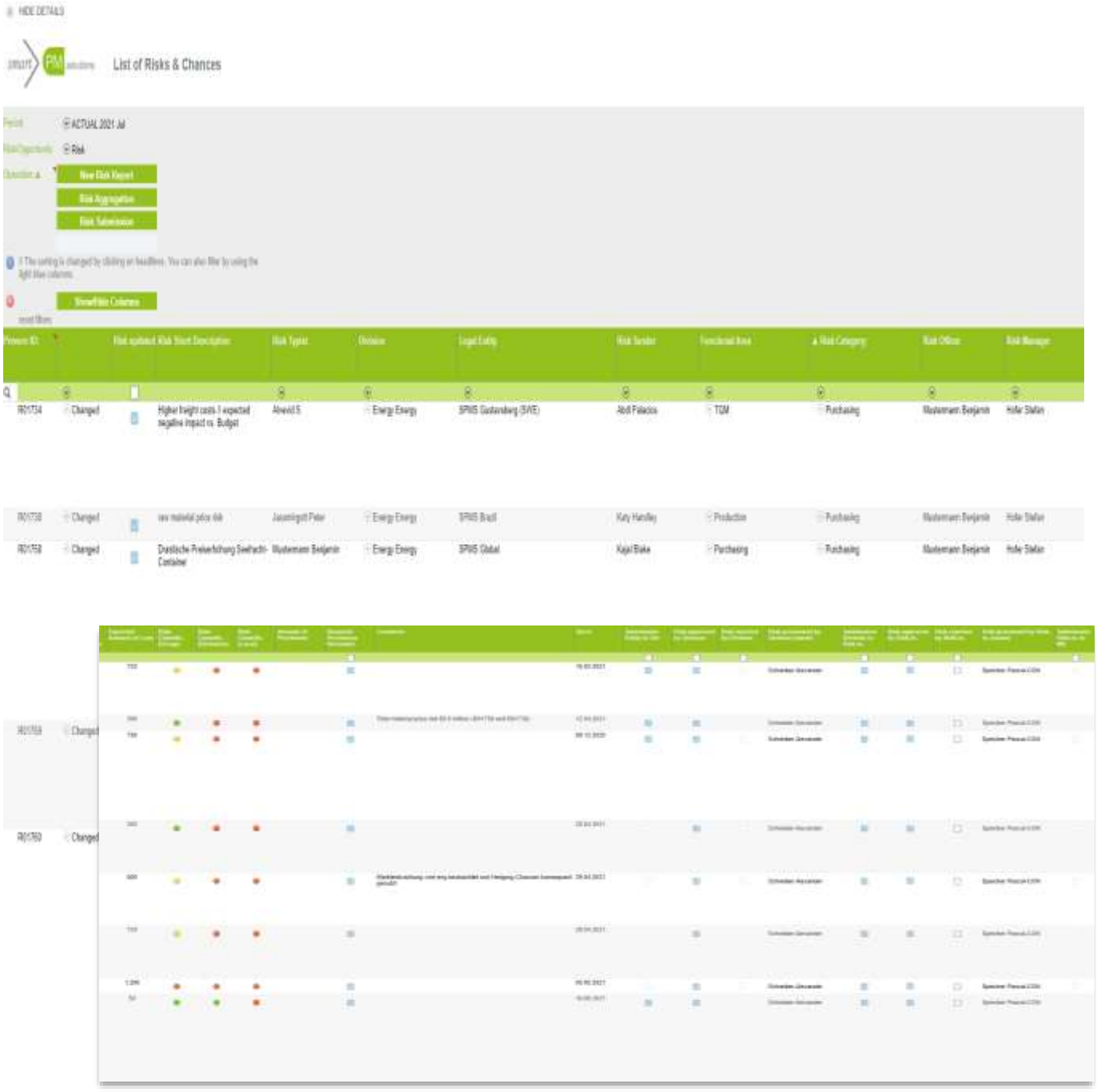

Figure 12: Standard report with risk net values & provisions

Alternatively, a company's risks/opportunities can be clearly displayed in a **risk map**. The probability of occurrence of the risk is shown on the x-axis and the risk class on the y-axis. The colors follow the traffic light principle and show the respective risk level and the number of individual risks per field of the matrix. This makes it easier to prioritize opportunities and risks. It is also possible to break down this risk map by geographic area.

Figure 13: Risk map with drill-down to individual risk level

Scenario comparisons that show at a glance the **effects of all opportunities, risks and initiatives on the income statement, balance sheet and cash flow** are particularly helpful for management (see Figure 14). Reliable decisions can be made on the basis of best to worst-case scenarios by additional ad-hoc analyzes.

Figure 14: Scenario analysis - impact on income statement, balance sheet and cash flow at a glance

[You can find more about this topic on the risk management and controlling knowledge platform >>]

III. Conclusion and management tips

In practice, the demand for a transparent risk management system that is integrated into corporate planning is increasing. There are often legal requirements for companies to systematically **monitor their risk situation and thus to identify, analyze and evaluate undesirable developments in business processes at an early stage**.

The risk management system from smartPM.solutions was developed on the basis of many practical projects and comprehensively covers all legal and corporate requirements for professional opportunities and risk management. It integrates the risk and opportunity management into the complete corporate management and thus contributes to the increase in performance and the fulfillment of the strategic corporate goals.

The smartPM risk management system clearly summarized:

Risk and opportunity management *smart*PM.solutions

- ✓ smartPM risk management workflow including role and authorization concept as a guide in the system
- ✓ 100% reliable data in real time; all departments seamlessly connected; automated, standardized processes
- ✓ Identificaiton of risks with standardized, customizable checklists, matrices, analzes and overviews
- ✓ Standarized risk assessment including description
- ✓ Central evaluation and approval processes – depending on the company structure
- ✓ Risks are continuously monitored and clearly visualized
- ✓ Dashboards risk overview, impact, interconnection, value etc. for reliable decision-making, aggregated and with drill-down to individual risk level
- ✓ Simplification of complex processes and use of integrated tools for collaboration and communication (e.g. MS Teams & Planner, Outlook)
- ✓ Use of standardized, user-defined reports and automatic report distribution
- ✓ Meaningful, scenario-based comparisons to simulate effects on the income statement, balance sheet and cash flow
- ✓ Increasing the quality of decisions and increasing performance
- ✓ Increase in efficiency and transparency, resulting in a positive value contribution to the company's success
- ✓ Simple and fast implementation, cloud-based or on premise, support for all end devices
- ✓ Predefined solutions that can be flexibly adapted, a very project-experienced consulting team including change management

With our many years of experience, we are at your disposal for a professional exchange between controllers. Talk to our experts for risk/opportunity management and risk controlling and find potential optimization approaches for your application in an expert talk.

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smart Performance Management solutions

WHO WE ARE

1 **Smart Corporate Performance Management:** Integrated business planning solutions and consultants with FP&A background. We listen carefully and follow through

2 **Status quo:** We integrate fragmented data into one single point of truth; improve & simplify processes

3 **Our solutions:** CPM solutions for fully integrated business planning. All in one system: planning, analysis, budgeting, forecasting, reporting, consolidation

4 **Your benefits:** Fast implementation with practice-proven, pre-defined CPM solutions which can be easily expanded and tailored to your requirements

5 **Result:** Data driven, reliable, proactive decision making; process automation, scenario comparison & precise forecasts

6 **KPI:** Satisfied clients 4.8/5 stars, 90% FP&A experts in consulting team, up to 60% time savings in planning, 100% data reliability

7 **References:** TOP references across many industries and company sizes

8 **Innovation-Team:** 25 % of our team is continuously improving our CPM solutions, e.g. by Artificial Intelligence

9 **Certified Consulting-Team:** Most competent team with a lot of business and IT knowledge & experience

10 **Market-leading technology:** Out solutions are built on state-of-the-art CPM technology (Unit4 FP&A prevero, Jedox & MS Power BI/A

smartPM.solutions at a glance: The smartPM product family grows with your requirements

Do you have further questions? We are looking forward to an expert talk with you!

Simply book a meeting in our online calendar >>