



## Vale

### Vale Gets Solid Grip on Global Performance and Priorities in Pursuit of Enterprise Risk Management Goals

One of the world's largest mining companies, Vale, is striving to achieve best practices in risk management. Headquartered in Brazil, Vale is the market leader in production of iron ore and ranks second in production of nickel, as well as producing pellets, coal, copper, fertilizers, manganese and ferroalloys - with around 195,000 employees working in 30 countries on five continents. As a member of the International Council on Mining and Metals (ICMM), Vale is publicly committed to "implement[ing] risk management strategies based on valid data and sound science."<sup>1</sup>

Today, Vale is developing a comprehensive new strategy for Enterprise Risk Management. The company's operational risk management team had historically focused primarily on loss recovery, looking at how the cost of assets could be protected through insurance. In 2006, however, Vale's risk managers saw that they needed to take a broader view by identifying potential events or circumstances that might impede their company from achieving its business objectives, assessing those issues in terms of their likelihood and magnitude, determining preventive or remedial actions, and then monitoring the progress of those actions to completion.

The Operational Risk team at Vale recognized that the success of their evolving strategy would depend upon their ability to collect, aggregate and analyze vast quantities of information from across the company so they established a framework for integrated risk management. This framework was designed to provide standardized policies, procedures and guidelines for risk governance as well as the tools and techniques required to translate rules into action by measuring risks, making decisions and assigning/tracking tasks.

For the first few years, Vale's risk managers tried to support the risk framework with hundreds of spreadsheets and databases. "We probably performed a dozen risk assessments within each business unit and we have 30 plus business units. Managing all of that data in spreadsheets was too big a job and ineffective," says Alain Valiquette, Operational Risk Manager for Base Metals at Vale. "So we went on the hunt for a global software solution. We looked at a short list of vendors and it quickly became apparent that Sphera is the leader. Since we'd already used other Sphera risk software successfully for several years, it was a natural next step for us.

#### CHALLENGE

- Develop a comprehensive strategy for Enterprise Risk Management
- Provide information foundation to support the framework for integrated risk management
- Embed risk management in the daily corporate culture by sharing information
- Drive operational excellence by streamlining workflows and uncovering efficiencies

#### SOLUTION

Operational Risk

- Risk Assessment

#### RESULTS

- Enables ERM strategy by replacing 100's of spreadsheets with one global risk management information system
- Empowers operations team by providing standardized risk data tool and workflows
- Reduces time to roll up enterprise risk data into a report by up to 99% - e.g. from an estimated two hours to two minutes
- Generates risk assessments that ensure future funding for risk control actions
- Developing innovative "heat-map" reports that offer various decision-makers tailored views of their risks and responsibilities

"In 2010, Vale selected *Sphera's Stature*<sup>®</sup> software - part of their Operational Risk Solution - as the enterprise wide foundation for the risk framework. With this new centralized information system, Vale's Operational Risk team can now identify, analyze, mitigate and monitor enterprise-level risks on a collaborative web-based platform, where lessons learned and best practices can be shared across the business.

"Implementing a global risk management model in a company the size of Vale is a truly huge challenge," said Jose Lyra, General Manager of Operational Risk, at Vale. "We have a clear vision and strong commitment from our leadership but we needed a flexible system that would evolve with us as our program matures - and not require too many manual interventions. Sphera has shown itself to be a good partner on our journey to risk management excellence."

"Our ultimate goal is to empower the operations team by offering them a tool that is simple, easy to access, and able to provide the information they need to make better decisions," Valiquette said. "With the global Sphera system, we have data standardization, sharing, version control, security, and the ability to consolidate information into a risk register. As a result, we've also uncovered new operational efficiencies. We used to need a couple of hours to roll up data from across the company and now we can do it in a couple of minutes - just the time it takes to print a report."

Vale's Operational Risk team continually works to embed risk management within the corporate culture, as part of the daily life of every employee in order to prevent or mitigate all kinds of disruptive incidents that may cause worker injuries, environmental destruction, asset damage and other impacts. The risk framework and *Stature* play an essential role by consolidating the company's risk information in one system and actively engaging stakeholders throughout the organization.

"When we go out into the plants, operations and mines - and the staff asks what risk tools we are using - the answer is simple," said Valiquette. "We say 'we have *Stature*. It's enterprise risk software. Here's your login. Use a template.' It's an easy sell, which is a big benefit for us as we continue standardizing best practices in risk management companywide."

"A significant amount of work goes into identifying enterprise risk events, conducting risk assessments, prioritizing risks and implementing controls to prevent and mitigate risks, including ensuring budget availability," said Kenneth Tan, General Manager of Business Planning and Integration for PT Vale Indonesia. "*Stature* provides us with an easy-to-use platform to register this work, update it, manage it and report it in an effortless, integrated manner that is consistent across the company."

Now that it is implemented at many of Vale's facilities worldwide, the Operational Risk team uses *Stature* to enable transparency and accountability throughout its risk management processes. They show each manager at Vale the risks that they are responsible for handling, what specific actions are planned to control those risks, which actions are on track and which aren't, and what additional resources may be needed.

When providing information to the company's senior executives, Valiquette said, "We use the risk framework to integrate and prioritize risks from across Vale's global operations. EHS, regulatory, social, legal and financial risk information all comes together so our decision makers can focus on what's most important and what needs to be done."

The Operational Risk team reports those risks that could have the largest potential impact on Vale's global operations. Risk assessments from *Stature* feed into Vale's strategic planning cycles to:

- Drive operational excellence by continuing to streamline workflows and provide additional control actions as needed to mitigate future risks
- Ensure that money is included in the budgets for future years to fund ongoing risk control actions

Looking ahead, the Operational Risk team continues to build leading-edge information management capabilities to support its overall risk management strategy. Among the innovations now in development are Risk Reporting Key Maps that offer Vale executives a 'heat map' of risks plotted across their global organization. These new risk reports allow key decision-makers at different levels of the organization - from corporate vice presidents to business unit directors to front-line facility managers - to drill down to see their particular risks and responsibilities.

As promised in its ICMM commitment, Vale is indeed implementing a risk strategy - an Enterprise Risk Management strategy that is solidly based on valid data and sound science.

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