



AXA MATRIX Risk Consultants

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**Tailored Solutions for
the Mining Industry**

AXA MATRIX Risk Consultants Mining Sector Practice

"At LAFARGE, we have a strong engineering culture, and it's clear that this culture and associated processes are shared by the risk prevention engineers at AXA MATRIX." - Philippe Bachelet, LAFARGE LEC VP Project AMEA

What can we do for your mining business?

From pit to port, the Mining Industry remains one of the most challenging industries for risk management and insurance placement. Challenges to Risk Management in the Mining Industry include ever increasing political, environmental, property, and transport risks, as well as substantial business interruption exposures.

Long term relationships and corresponding risk consulting experience with some of the largest mining companies in the world have enabled AXA MATRIX Risk Consultants to not only evaluate specific process hazards but also identify, analyze and calculate highly complex interdependency, machinery breakdown and property loss scenarios.

AXA MATRIX Risk Consultants has broad and comprehensive global experience in surface mining processes and equipment, including bauxite, boron, coal, copper, diamonds, gold and silver, iron ore, limestone, molybdenum, nickel, and titanium.

Some of our recent success

AXA MATRIX Risk Consultants can deliver third party customer solutions, whether it is a "best practice" solution or a more pragmatic risk reduction strategy tailored to your risk management needs:

- In **Canada**, we performed construction risk assessment to identify key risk drivers for multi-billion dollar aluminum smelter projects. This assisted in placement of CAR policies, aided in warranty extensions, and provided key information and risk mitigation as the project moved to the commercial phase covered by the regular property insurance program.
- In **Africa**, we provided property and asset risk services on Mozambique's largest "pit-to-port" coal mining development, including mine infrastructure, mobile equipment, ancillary facilities, construction of a new deep water port, and a 900 km rail line with maintenance facilities.
- In **Australia** and **US**, we assessed "care and maintenance" practices for a soon to be idle open-cut coal mine as regards machinery & equipment maintenance practices to retain asset value for draglines, mobile equipment, and coal handling and processing plants.

- In the **US** and **Brazil**, we survey open cast and underground mines as well as processing facilities and associated infrastructure, implementing and advising on industry best practices to improve customer Machinery Breakdown risk profiles and help prevent unplanned machinery breakdown/losses.
- In the **US**, we developed global customer Emergency and Trigger Response Plans, evaluated post-incident workarounds, along with defining Property Damage and Time Element/Business Interruption estimates for major risk scenarios.

Mining Project Investment by Region, 2013			
	Investment (US\$ billion)	Share (Percent)	Share Trend (2012 to 2013)
Africa	110	14	↔
Asia	72	9	↓
Europe	103	13	↑
Latin America	229	29	↔
North America	161	20	↑
Oceania	116	15	↓
TOTAL	791	100	

Larsson, Viktoriya and Magnus Ericsson. "E&M's Annual Survey of Global Metal-mining Investment." *Engineering and Mining Journal* January 2014: 28.

Stay ahead of your risks...

with AXA MATRIX Risk Consultants

AXA MATRIX Risk Consultants delivers a comprehensive range of risk management and consulting expertise to match the unique risk profile of your local and worldwide operations. Our global network of professionals combines proactive and comprehensive collaboration to help you identify current and future risks and provides pragmatic solutions to optimize and control risk. The AXA MATRIX Risk Consultants risk approach is independent, flexible, and transparent. We focus on empowering our customers to improve business results and protect brand value.

Whatever your business, AXA MATRIX Risk Consultants will help manage your total cost of risk, and be better prepared for a profitable and successful future, staying ahead of your risks.

Our Mining Sector Approach

1. Holistic (Property, Liability, Construction, Machinery & Equipment, Care and Maintenance, Interdependency, Process, Business Continuity, etc.) risk consulting perspective to assist our customers to reduce the probability of specific direct and indirect losses, minimize the severity of any such losses, and ensure the continuity of business operations. This is delivered by experienced engineers with extensive knowledge of mining and associated industries.

2. Custom mining risk reduction training modules for corporate / local levels. Ability to deliver training modules in multiple countries and languages.

3. Provide natural catastrophe analysis of customer sites worldwide, from overall analysis to specific site study. We visualize risks on a world map so that specific risks can be identified and risk accumulations can be made available to evaluate captive capacity/retention or overall insurance capacity needs.

4. We develop customized database solutions to provide uniformity of data from multiple sources including graphical risk ranking

AXA MATRIX Risk Consultants strives to answer the following questions :

- How do customer risks relate to customer business priorities and trends?
- What exposures and constraints do customer entities face locally?
- How can we leverage and apply effective local or regional solutions?
- How do these risks impact the corporate risk management strategy?
- What is the required investment to control the risks? What is the quantified benefit?
- How do specific Risk Control actions and strategies impact the customers overall risk costs and risk profile?
- How do we include our trading and service partners to develop the most pragmatic and cost effective risk approaches?