

# riskMETRICS

MEASURE SAFETY PERFORMANCE  
AND ASSESS PROGRESS



ANALYSIS

TRENDS

PROACTIVE

RISKS

## Intent

The intent is to deploy a set of metrics that will measure safety performance 'beyond' zero/lagging indicators and that can be used to assess progress with safety transformation.

## Premise

The traditional approach in safety is to measure accident rates as an indicator of 'safe'. However, current science and models, have shown that the 'absence of accidents' cannot be regarded as a valid measurement of safety, because in any 'event', there is a significant presence of randomness, or in many non-events (near of far misses), there are potential exposures that were not measured or even measurable. Modern descriptions of 'safe' are focused on the 'presence of capacity' or as defined by Safemap, as the 'readiness to respond to risk'.

## Approach

Safemap developed a measurement of 'readiness to respond to risk', based on extensive research from a Elimination of Fatalities program data with a client, and also the work of several researchers in this field. The model was validated with many organizations, including Debmarine, Exco's of De Beers Group, Debswana, Element 6 and external organizations such as Kinross Gold, NASA Major Accident Investigation Group, DOW Chemicals and others.

## Deployment

### Design

The riskMETRICS assessment consists of a series of 'mini surveys', deployed longitudinally over time periods in an organization, from which trends can be analyzed and gaps can be identified.

The riskMETRICS is presented as an on-line survey and consists of 14 standardized statements about various cultural and systems-related topics. Respondents are given three options and must select the most descriptive one, as they see it, about the company, which describes three levels of maturity:

- ▶ Basic/Reactive
- ▶ Regressive/Constrained
- ▶ Progressive/Resilient

The survey analysis is done with a set of validated algorithms and comprehensive profiles are provided.

### Execution

There are several options for executing the survey process, and the following two in combination, are recommended.

- ▶ 'Mini surveys' every second month of each business unit, involving approximately 30 employees, as randomly stratified as possible. This survey will provide 'indicative' data, that can be used for the discovery of topics that can be further explored by the management of the company.
- ▶ Six-monthly survey, executed with a valid randomly stratified larger sample of employees from various job-levels, in each of the business units. will need to be identified. This survey will provide 'inferential' data.

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## Sampling

The identification of participants for the surveys above should be done on an absolute random basis and stratified with various job levels and departments.

Ideally, contractor employees should also be included, but alternatives to web-based surveys will need to be identified. See the table attached for calculation of the sample size for each unit.

## Resilience Metrics

The following 14 metrics are used, to which a few more (say, 3) can be customized for the client and added.

1. The prevailing view on what defines 'safe'
2. The focus in Potential Serious Injury/Fatal risk control
3. Effectiveness of the risk management system (ORM) to control serious risks
4. The focus in controlling risks (hierarchy of control)
5. The typical approach of employees to safety rules/procedures
6. The typical view of accident causation
7. Review/auditing of the risk management program (ORM)
8. The focus of the effort to control risks
9. The primary focus during VFL engagement with employees
10. The value and quality of safety procedures
11. The efficiency of work and planning
12. Supervisors typical response to employees' mistakes
13. The readiness of front-line employees to respond to risk
14. The balance of effort in the risk management system

Riskmap interventions have been developed by psychologists, safety professionals, industry experts and academia with risk skills from the real world and advanced thinking from research. We offer an impeccable track record in our field. We take you towards the true values of safety: care, commitment and competence.

## FOR MORE INFORMATION CONTACT RISKMAP

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*Safety is not our business, it is our passion*

