

# Stakeholder Research Toolkit

Best practice guidelines for  
measuring and monitoring  
stakeholder relationships  
in the mining and metals  
industry resources sector

---

# CONTENTS

	<b>Executive summary</b>	<b>3</b>
<b>1</b>	<b>Introduction</b>	<b>5</b>
	1.1 Rationale: the need to understand company and industry reputation from a stakeholder perspective	7
	1.2 Benefit: delivering value from stakeholder research	8
	1.3 Using the toolkit	9
	1.4 A process fit for purpose	10
<b>2</b>	<b>The process of developing a survey instrument</b>	<b>11</b>
	2.1 Preliminary considerations	12
	2.2 Methods of data collection	18
	2.3 Survey structure and content	23
<b>3</b>	<b>A template survey instrument</b>	<b>29</b>
	3.1 Demographic measures	31
	3.2 Issues and impacts – short version	32
	3.3 Issues and impacts – extended version	33
	3.4 Relational measures – short version	37
	3.5 Relational measures – extended version	39
	3.6 Outcome measures (social licence and reputation) – short version	40
	3.7 Outcome measures (social licence and reputation) – extended version	42
<b>4</b>	<b>Using data for impact</b>	<b>43</b>
	4.1 Descriptive statistics – Standard and Intermediate data analysis	44
	4.2 Inferential statistics – Advanced data analysis	45
	4.3 Interpretation for internal decision making	47
	4.4 Data as a “boundary object”	49
<b>5</b>	<b>Organizing, storing, aggregating and comparing data</b>	<b>51</b>
	5.1 Within companies	52
	5.2 Between companies	53
<b>6</b>	<b>Further information</b>	<b>55</b>
	Glossary	56
	References	57
	Acknowledgements	58

---

## EXECUTIVE SUMMARY

---

The *Stakeholder Research Toolkit* provides step-by-step guidelines for companies seeking to measure and monitor their reputation among all stakeholder groups. Specifically, the toolkit provides a useful methodology for companies seeking to work collaboratively with stakeholders in order to understand the key drivers of reputation. This provides a mechanism for companies to incorporate and understand the perspectives of their stakeholders regarding company and industry performance. The toolkit has been designed to provide users with clear instructions on how to develop and apply meaningful survey methods for use with their stakeholders, and specifically local communities. This also includes incorporating a set of common metrics, which can support the measurement and monitoring of reputation over time at local, national and global scales.

---

### Background to the toolkit

---

This toolkit represents the culmination of a program of work conducted in two phases to examine current reputation measurement activities by members and support future, co-ordinated activities in this area. Phase one involved comprehensive engagement with International Council on Mining and Metals (ICMM) members and staff, and desktop research, to document current and best practices regarding stakeholder reputation research. Phase two of this program was to develop this toolkit as a means for supporting future, co-ordinated stakeholder reputation research among ICMM members, and the industry more broadly. A key aspiration for this work was to enable the development of consistent, systematic reputation data for the mining and metals industry.

### The rationale for this toolkit

---

Measuring and managing both company and industry reputation has a range of benefits, including:

- understanding and tracking issues that matter to company and industry stakeholders (including the communities that host these operations)
- using this knowledge to inform the development of strategies, initiatives and programs that are aligned with stakeholder needs or expectations
- anticipating issues of concern before they escalate, and identifying strategic opportunities for engagement as they emerge
- building trust and acceptance of mining companies with their communities and other stakeholders in order to support more sustainable and productive company-stakeholder interactions
- demonstrating progress made against company and industry commitments and aspirations
- enabling company-level data to be aggregated to provide a consistent understanding of industry reputation.

# EXECUTIVE SUMMARY

*continued*

## The structure of this toolkit

The toolkit has five sections.

### Section 1 Introduction

The introduction describes the rationale for using a common, systematic process for assessing stakeholder perceptions; the benefit that may be derived from conducting such research; a description of a proposed graduated research design system to guide the level of detail in the methods used to assess and analyze stakeholder perceptions; and a guide for how to use this toolkit. The use of a graduated system aims to provide companies with a range of increasingly sophisticated data collection and analysis options, depending on their circumstance and interest, while retaining metrics across all levels of research design complexity that will enable aggregation of data between companies in the future.

### Section 2 The process of developing a survey instrument

This section comprises an overview of issues and considerations companies should think through when developing a survey instrument, including:

- understanding context and ensuring research is conducted that is consistent with the highest ethical standards and applicable privacy laws
- different ways to collect data (including quantitative, qualitative and mixed method designs)
- the major components of a survey instrument designed to assess stakeholder perceptions.

In this section, some guidance around how to evaluate and choose a research partner is also included based on the type of reputation research that a company is seeking to conduct, as well as reflections on resourcing a robust research process.

### Section 3 A template survey instrument

A template survey instrument is provided to enable companies to adapt it for systematic and consistent collection of stakeholder perception data. The purpose for including a template instrument is to enable companies to use similar measures on key variables (eg industry reputation) to allow aggregation of such data in the future.

### Section 4 Using data for impact

A discussion follows regarding the use of data to maximize its utility, including:

- the different types of analysis that may be performed and what types of insights may be gained from these
- suggestions for how decision making may be supported by this data within companies
- how the data may be used in external engagement contexts with the stakeholders that have been surveyed or may be interested in the results.

In the context of internal company decision making, opportunities are explored such as shaping communication strategies, aligning stakeholder engagement key performance indicators with those factors found to positively influence reputation and driving more effective community engagement through better understanding of stakeholders' issues and concerns. Finally, in this section, the use of data collected as a tool in itself is shown to advance stakeholder relationships outside the business through:

- reflecting on the findings of reputation research with communities of interest to demonstrate active listening and document action
- shaping institutional responses to industry through bringing systematic data sets into private or public dialogue with governments
- counteracting data positioned by interest groups that are ardently anti-mining but may not reflect broader stakeholder sentiment.

### Section 5 Organizing, storing, aggregating and comparing data

A final section deals with the management of data once it has been collected and analyzed, including other uses such as aggregating across operations, companies and countries to realize broader value for companies and the industry as a whole.

**“GUIDANCE AROUND HOW TO EVALUATE AND CHOOSE A RESEARCH PARTNER IS ALSO INCLUDED BASED ON THE TYPE OF REPUTATION RESEARCH THAT A COMPANY IS SEEKING TO CONDUCT, AS WELL AS REFLECTIONS ON RESOURCING A ROBUST RESEARCH PROCESS”**

# 1

## INTRODUCTION

The introduction describes the value of a toolkit that informs the measuring and monitoring of stakeholder relationships in the mining and metals industry.

# INTRODUCTION



The *Stakeholder Research Toolkit* provides step-by-step guidelines for companies seeking to measure and monitor their reputation among all stakeholder groups. Specifically, the toolkit provides a useful methodology for companies seeking to work collaboratively with stakeholders in order to understand the key drivers of reputation. This provides a mechanism for companies to incorporate and understand the perspectives of their stakeholders regarding company and industry performance. The toolkit has been designed to provide users with clear instructions on how to develop and apply meaningful survey methods for use with their stakeholders, and specifically local communities. This also includes incorporating a set of common metrics that can support the measurement and monitoring of reputation over time at local, national and global scales.

This toolkit represents the output of phase two of an ICMM initiative to examine current reputation measurement activities by members and support future, co-ordinated activities in this area. Phase one, conducted by GlobeScan (GlobeScan 2013), comprised a series of interviews (with 19 companies, 11 association member representatives and 7 ICMM staff members) and desktop research in order to understand the nature of current stakeholder research activities members undertake, and to collate material provided by members to report on current and best practice reputation research in the mining and metals industry. Three reports were produced in phase one. These were presented to members in October 2014 and formed the basis of the Stakeholder Research Toolkit in phase two:

- 'Global reputation research landscape of the mining and metals industry: a review of existing research activities'
- 'Global reputation research landscape of the mining and metals industry: a review of existing research data collected from members and other sources'
- 'ICMM mining and metals industry reputation lexicon of common techniques and approaches for reputation research'

The intended users of this toolkit include community engagement, social performance, communications and external relations professionals and others within mining companies that have responsibility for examining and managing the relationship between the company and external stakeholder context. It is also hoped that other organizations and agencies that have an interest in understanding the relationship between company and industry reputation and their stakeholders may also find value in this toolkit. The information generated by use of this toolkit, and other reputational research, may also be of interest to host-country governments, development agencies and non-governmental organizations (NGOs).

# INTRODUCTION

*continued*



The users of the toolkit will benefit from an improved understanding of the drivers of their reputation within stakeholder constituencies. This knowledge can also inform company decision making about investing in strategic and well-targeted stakeholder engagement activities that are aligned with community expectations and contribute to improved and more sustainable company–community relationships.

It is recognized that a number of ICMM members are already committed to undertaking stakeholder research to support stronger, constructive relationships. This toolkit provides guidance on how best to enhance the quality of those stakeholder research activities to support this outcome. Importantly, the methods and techniques described in this toolkit can be incorporated in existing research and engagement activities.

## 1.1

### Rationale: the need to understand company and industry reputation from a stakeholder perspective

Measuring and managing both company and industry reputation is important for a variety of reasons. For example, the purpose of investing in research activities to support measurement and management of reputation can be:

- to understand and track issues that matter to company and industry stakeholders (including the communities that host these operations)
- to use this knowledge to inform the development of strategies, initiatives and programs that are aligned with stakeholder needs or expectations
- to anticipate issues of concern before they escalate, and to identify strategic opportunities for engagement as they emerge
- to build trust and acceptance of mining companies with their communities and other stakeholders in order to support more sustainable and productive company–stakeholder interactions
- to demonstrate progress made against company and industry commitments and aspirations
- to enable company-level data to be aggregated to provide a consistent understanding of industry reputation.

Current best practice on measuring and managing reputation has moved well beyond the idea that reputation is only driven by a company's own marketing and public relations efforts. It is now widely recognized that reputation is shaped by the beliefs and opinions held by, and the experiences of, stakeholders. Thus, rather than being a construct that is shaped from within companies and the industry, reputation is best understood as reflecting the nature and quality of those relationships between companies, the broader industry and their key stakeholders.

Reputation is a product of what companies do, and how their actions and behaviour are perceived by those outside the industry. This goes to the heart of social licence to operate.

In order to understand, measure and manage reputation, companies need to understand their stakeholders and, more importantly, the perspectives and beliefs of their stakeholders. This requires a shift to more inclusive engagement of local and broader stakeholder perspectives, and recognition that a key way to influence reputation is through elevating the discourse around reputation to encompass broader concepts such as community engagement, reflexive relationships and social licence.

A more holistic view of reputation is about recognizing that in order to understand the drivers of reputation, there is a need to engage more directly and more inclusively and openly with community and other stakeholders. In turn, developing a localized understanding of reputation at the operational scale can help companies understand the drivers of their reputation across multiple operations. This can be particularly useful for developing strategic insight into how reputational issues are affected by geography, location, commodity, stage of mining and a range of other factors. Focusing on developing consistent, systematic methods at the local operational scale also enables company-specific data to be aggregated across operations within and between countries, and key elements of this data to be aggregated between companies across the same scales.

# INTRODUCTION

*continued*

1

## 1.2

### Benefit: delivering value from stakeholder research

It is recognized that a number of companies already undertake extensive reputation research. The opportunity and challenge for the industry as a whole is to collect this data in ways that allow for systematic trends and patterns in the data to emerge within and between companies. In this way, for example, a company or companies may be able to compare local stakeholder perspectives around their iron ore versus coal assets in the same country, or assess differences within coal mining communities between countries, using the same metrics.

A systematic approach to measuring reputation allows benchmarks to be established regarding social performance and an opportunity to evaluate and replicate successful strategies in new locations. Contextual differences in how similar engagement processes or communication campaigns, for example, affect reputation also offer opportunities for aligning company strategy clearly and appropriately to context. Through aggregating key reputation metrics, these benchmarks may also allow for the mining and metals industry to compare itself to other industries that have similar and different characteristics; it will allow an industry position about reputation to be established that stands up to outside scrutiny.

#### BREAKOUT BOX 1

##### Key questions to ask before embarking on a stakeholder perception survey

There are some key questions that a company can ask when embarking on an exercise to understand stakeholder perceptions. These include:

- What overarching question(s) are we seeking to answer?
- What do we intend to do with the information we collect?
- What existing engagement processes can we leverage for data collection and dissemination of results?
- What data have we collected in the past and how may we use this data to inform this exercise?

It also makes sense to understand what your stakeholders would like to understand more fully as well:

- What information gaps do your local community stakeholders feel exist?
- What are the issues that come up in conversation with host governments and NGOs?
- What stakeholder-related topics are most prominent in industry forums?
- What do your investors and shareholders want to know about the way you manage stakeholder concerns?

All of these questions, and the internal conversations that they prompt, provide valuable input for the development of a stakeholder perception survey activity. They inform the content of survey instruments, planning around analysis of the data, planning for dissemination and discussion of the results and thinking about how much of the data a company may be willing to share with its peers. These questions may also reveal the limits of such an activity, and manage the expectations of company colleagues as to what may be achieved through such an activity.

Further, existing reputation research often underutilizes the data that is collected. Often, high-quality data that is collected is analyzed in ways that do not unlock the power of deeper insights within this data or realize the full financial investment in such activities. Using more sophisticated analytical techniques, it is possible not only to understand what stakeholders think about a company or the industry, but to understand how key factors within the data relate to each other. For example, it is useful to understand the mean level of local stakeholder sentiment regarding operational noise, economic benefits and activities that aim to improve company reputation (eg social investment programs). However, it is even more useful to understand the relative importance of these factors in predicting levels of acceptance of an operation and a company's reputation. Such insights go beyond descriptions of stakeholder views to provide a blueprint for future engagement strategies on the

issues that matter to these local communities and an opportunity to track how such strategies influence stakeholder sentiment across time. Aggregating reputation data at an industry level adds even greater value through supporting discussions with external stakeholders such as governments and NGOs with consistent, systematic evidence where often this information is sparse and contested.

The most effective means for establishing a benchmark and ongoing assessment of progress regarding reputation and stakeholder perceptions is through the collection of quantitative data. This toolkit focuses on the development of company-specific survey instruments that allow this type of data to be collected effectively. The role and importance of other, qualitative methods in conjunction with the described survey methods are also described.

# INTRODUCTION

*continued*



## 1.3

### Using the toolkit

The toolkit is designed to be used by companies to understand their relationships with a range of stakeholders, particularly local communities. It is intended that company personnel will work through the toolkit content to reflect on the issues they face regarding the collection of stakeholder perspectives, the nature of the questions they are seeking to answer and the methods they will employ to design and deploy a survey instrument that is sensitive and appropriate to context.

It is expected that in using this toolkit, companies may seek the assistance of a reputable and experienced data collection and analysis company or research institution in order to ensure the integrity and quality of the data collected and its appropriate analysis. This toolkit provides a starting point and guide for this engagement.

The toolkit has five sections:

#### Section 1 Introduction

The introduction describes the rationale for using a common, systematic process for assessing stakeholder perceptions; the benefit that may be derived from conducting such research; a description of a proposed graduated research design system to guide the level of detail in the methods used to assess and analyze stakeholder perceptions; and a guide for how to use this toolkit.

#### Section 2 The process of developing a survey instrument

This section comprises an overview of issues and considerations companies should think through when developing a survey instrument, including:

- understanding context and ensuring research is conducted that is consistent with the highest ethical standards and applicable privacy laws
- different ways to collect data (including quantitative, qualitative and mixed method designs)
- the major components of a survey instrument designed to assess stakeholder perceptions.

**Section 3**  
**A template survey instrument**  
A template survey instrument is provided to enable companies to adapt it for systematic and consistent collection of stakeholder perception data.

#### Section 4 Using data for impact

A discussion follows regarding the use of data to maximize its utility, including:

- the different types of analysis that may be performed and what types of insights may be gained from these
- suggestions for how decision making may be supported by this data within companies
- how the data may be used in external engagement contexts with the stakeholders that have been surveyed.

#### Section 5 Organizing, storing, aggregating and comparing data

A final section deals with the management of data once it has been collected and analyzed, including other uses such as aggregating across operations, companies and countries to realize broader value for companies and the industry as a whole.

“IT IS INTENDED THAT COMPANY PERSONNEL WILL WORK THROUGH THE TOOLKIT CONTENT TO REFLECT ON THE ISSUES THEY FACE REGARDING THE COLLECTION OF STAKEHOLDER PERSPECTIVES, THE NATURE OF THE QUESTIONS THEY ARE SEEKING TO ANSWER AND THE METHODS THEY WILL EMPLOY TO DESIGN AND DEPLOY A SURVEY INSTRUMENT THAT IS SENSITIVE AND APPROPRIATE TO CONTEXT”

# INTRODUCTION

*continued*

# 1

## 1.4

### A process fit for purpose

It is anticipated that different companies will have different needs and interests with respect to collecting and analyzing reputation data from their stakeholders. The phase one lexicon report provides an excellent source of information and advice regarding reputation research, methods for completing this work and for achieving senior-level endorsement for

a project within a mining and metals company. This information has informed the development of the Stakeholder Research Toolkit. If one of the aspirations of developing this toolkit is to enable the comparison of (some) data within and between companies, this poses a challenge.

A graduated research design framework is introduced here that seeks to provide companies with a range of increasingly sophisticated data collection and analysis options, depending on their circumstance and

interest. In this way, companies that have limited resources or capacity to collect and analyze data may still collect data that may be shared and aggregated with data collected by other operations within a company or with data that has been collected by other companies. Thoughts on how aggregating and sharing data may be achieved in the future are described in Section 5. The main features of the graduated system that will be referred to throughout the toolkit are described in Table 1.

**Table 1: Graduated research framework for conducting stakeholder research**

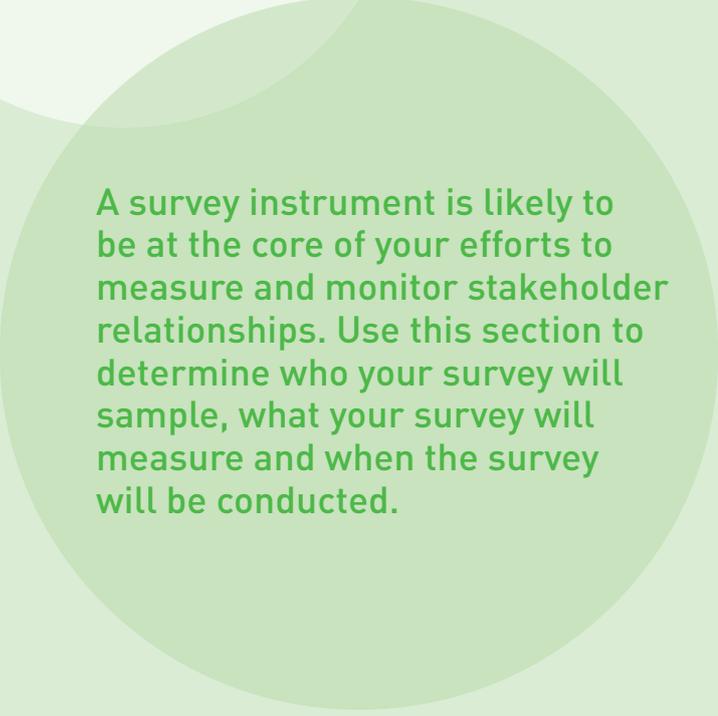
LEVEL OF RESEARCH DESIGN COMPLEXITY	STAKEHOLDER ENGAGEMENT PROCESS	DETAIL OF SURVEY INSTRUMENT	TYPE OF ANALYSIS	APPLICATION AND UTILITY
Standard	<ul style="list-style-type: none"> <li>• Desktop review</li> <li>• Media monitoring</li> <li>• Survey: short version</li> </ul>	<ul style="list-style-type: none"> <li>• Brief instrument used, including short version survey measures only</li> </ul>	<p><b>Descriptive statistics employed</b></p> <ul style="list-style-type: none"> <li>• Describe basic features of the data</li> <li>• Primarily, the mean and standard deviation of single measures used are produced</li> <li>• Some examination of relationships between variables through correlations</li> </ul>	<ul style="list-style-type: none"> <li>• Basic understanding of stakeholder perspectives for guiding stakeholder engagement and communication strategies</li> </ul>
Intermediate	<ul style="list-style-type: none"> <li>• Desktop review</li> <li>• Media monitoring</li> <li>• Interviews/focus groups</li> <li>• Survey: short version</li> </ul>	<ul style="list-style-type: none"> <li>• Brief instrument used, including short version survey measures only</li> <li>• Expanded demographic categories</li> </ul>	<p><b>Descriptive statistics employed</b></p> <ul style="list-style-type: none"> <li>• As per Standard level of design complexity</li> <li>• Thematic analysis of interview/focus group data</li> </ul>	<ul style="list-style-type: none"> <li>• More detailed understanding of stakeholder perspectives, primarily through the use of more qualitative processes to shape survey content and ground results back in context</li> </ul>
Advanced	<ul style="list-style-type: none"> <li>• Desktop review</li> <li>• Media monitoring</li> <li>• Interviews/focus groups</li> <li>• Survey: long version</li> <li>• Workshops</li> <li>• Repeated process each year</li> </ul>	<ul style="list-style-type: none"> <li>• More extensive and detailed survey instrument used, including multiple items examining multiple impacts/benefits</li> <li>• Expanded relational and outcome measures included</li> </ul>	<p><b>Inferential statistics employed</b></p> <ul style="list-style-type: none"> <li>• Describe relationships between measures used, including causal relationships</li> <li>• Employ t-test or ANOVA to examine differences between mean scores</li> <li>• Employ regression and path analysis to examine relative importance of measures in predicting outcome measures</li> <li>• Thematic analysis of interview/focus group/workshop data</li> </ul>	<ul style="list-style-type: none"> <li>• Sophisticated understanding of stakeholder perspectives</li> <li>• Provides information regarding the relative importance of reputational drivers to inform engagement and communication strategy</li> <li>• Enables effectiveness of engagement strategies to be tracked across time</li> </ul>



# 2



## THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT



A survey instrument is likely to be at the core of your efforts to measure and monitor stakeholder relationships. Use this section to determine who your survey will sample, what your survey will measure and when the survey will be conducted.

# THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT



This section prepares you for developing a survey that validly and reliably measures your company's reputation among stakeholders. Adequate preparation is essential to ensuring your stakeholders value the process of being surveyed and that your company yields credible information from the process, which future decisions will be based on. To enable you to undertake a quality survey, the following topics are presented:

- preliminary considerations – this information prepares you for developing a survey that is responsive to the current context of your company and stakeholders and, importantly, is sensitive to ethical and legal considerations
- methods of data collection – this content will assist you in understanding why you are using a survey to collect information from your stakeholders and when you may consider other methods
- survey structure and content – this material will support you in making decisions about what topics to collect information on and in what order.

## 2.1

### Preliminary considerations

#### Know the context and your capacity

As a reminder, a stakeholder can be “any group or individual who can affect or is affected by the achievement of the organization's objectives” (Freeman 1984, p 40). While this is a broad and inclusive definition of who a stakeholder may be, it prompts careful thinking about who an operation's or a company's stakeholders are. These stakeholders may include:

- locally situated communities
- communities that reside in areas where labour is accessed
- employees of the mine or people who have some social connection with them

- Indigenous Peoples that live locally or distally
- members of governments at different levels
- other potentially influential politicians (eg those currently not in government)
- NGOs and other advocacy groups (local, national and global)
- media groups (local and national)
- academics and contextually important thought leaders
- shareholders.

What is key is that the methodology employed to understand company reputation is exclusive enough to enable meaningful interpretation of the data collected for effective use by the company and inclusive enough that stakeholders with an interest feel engaged and able to have their voice heard.

# THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT

*continued*



It is not possible or even desirable in most cases to include every person identified as belonging to an included stakeholder group in a survey. Instead, it is important that a robust and useful sample of stakeholders be selected for inclusion – what may be called a representative sample. How many individuals should constitute this sample depends on a number of factors, including the number of stakeholder groups identified for inclusion, the types of analyses that will be conducted on the data collected and the nature of the program of work itself (longitudinal data collection surveying the same individuals will need to accommodate attrition over time within the sample).

In this sampling frame, it is also important to ensure that those who may not normally have a voice in formal engagement processes (eg women, young people and minority cultural groups) are included in plans for selecting and recruiting a sample of participants. This is not always easy but a reputable data collection company should have developed strategies and methods for accessing these groups – criteria that are important in due diligence processes for choosing an external service provider to assist in a surveying exercise.

Even when using an experienced and reputable service provider, it may be difficult to access a representative sample of views from each stakeholder group identified through one methodology. In such circumstances, it is important to make informed and transparent decisions about what stakeholder groups you will be able to access and what proportion of these groups you anticipate will suffice to provide an accurate understanding of stakeholder sentiment.

**“IT IS IMPORTANT TO MAKE INFORMED AND TRANSPARENT DECISIONS ABOUT WHAT STAKEHOLDER GROUPS YOU WILL BE ABLE TO ACCESS AND WHAT PROPORTION OF THESE GROUPS YOU ANTICIPATE WILL SUFFICE TO PROVIDE AN ACCURATE UNDERSTANDING OF STAKEHOLDER SENTIMENT”**

It may also be difficult to access enough members of a particular stakeholder group (eg media groups, regulators) to provide a viable sample for statistical analysis. In these cases, other methods may need to be employed to ensure the voices of these stakeholders are represented (eg interviews, focus groups).

When determining what stakeholders the survey will aim to sample, the following activities and related information is useful to collect and consider.

### **A preliminary stakeholder identification exercise**

There are numerous methods of mapping stakeholders. These methods are well documented within the general stakeholder management literature (eg Clarkson 1995, primary and secondary stakeholders) and there are also methods more specific to mining (eg ICMM Community Development Toolkit). The method used should seek to identify those stakeholders that are relevant to your operation now and those that will be important to your reputation in the future. Identifying these groups early in the process is critical to enabling the sampling frame developed and the survey instrument itself to capture membership of such groups: this is vital when analyzing data to enable a nuanced understanding of what different groups think of your operation, company and the industry.

### **A SWOT analysis of your company's capacity to undertake the survey**

Every company has its strengths and capacities. It is likely there are elements of the survey process that would benefit from expertise outside your company, including:

- item construction (ie question writing)
- data collection, for example online survey administration requires different skills compared to face-to-face administration
- data analysis, particularly for inferential statistical analysis (Advanced research design)
- accurate and accessible reporting for a variety of internal and external audiences
- aggregating data for comparison within and between companies.

# THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT

## 2

*continued*

If outside expertise is required, choose carefully, as the expert(s) you engage and what they deliver will impact the results of your survey. When sourcing outside expertise, the following factors can be a guide:

- Look for evidence of past experiences with similar samples and similar content, particularly those that understand the particular context in which the work will be completed – do they have robust and sensitive strategies for accessing those stakeholders that may be considered vulnerable or challenging to access (eg Indigenous populations)?
- Seek a reputation for quality processes in the treatment and engagement of participants – do they seek to build rapport with participants when conducting face-to-face surveys and do they allocate a realistic amount of time to do this respectfully before beginning the survey?
- Explore the company's data management and analytical skills – how will the company treat issues such as missing data or incomplete data sets?
- Seek information regarding the company's approach to ethical and legal issues associated with data collection and management – will the company guarantee to conduct the work to the highest ethical standards (not just to those of the context where these are less well developed) and understand the constraints of national privacy acts that may prohibit the transfer of personal information across national boundaries?
- Conduct financial due diligence on prospective contractors – do they have the financial resources to meet any costs arising from breaches of privacy laws should they occur and/or do they have appropriate liability insurance?
- Explore the scope of services quoted for service provision – what elements of work are excluded from cheaper quotes and how may this affect the utility of the information collected?

It is important to consider what a company is seeking to achieve from a stakeholder research project when choosing an appropriate research partner.

These criteria for a research partner are different depending on what complexity level of stakeholder reputation research a company is aspiring to conduct. Table 2 provides some criteria that may be useful in making this decision.

**“SEEK A REPUTATION FOR QUALITY PROCESSES IN THE TREATMENT AND ENGAGEMENT OF PARTICIPANTS – DO THEY SEEK TO BUILD RAPPORT WITH PARTICIPANTS WHEN CONDUCTING FACE-TO-FACE SURVEYS AND DO THEY ALLOCATE A REALISTIC AMOUNT OF TIME TO DO THIS RESPECTFULLY BEFORE BEGINNING THE SURVEY?”**

# THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT

continued



**Table 2:** Characteristics of research partners and relevant skills, capacities and experience for different complexity levels of stakeholder reputation research

LEVEL OF RESEARCH DESIGN COMPLEXITY	STAKEHOLDER ENGAGEMENT PROCESS	TYPE OF (RESEARCH PARTNER) ORGANIZATION	SKILLS, CAPACITIES AND EXPERIENCE TO LOOK FOR
Standard	<ul style="list-style-type: none"> <li>• Desktop review</li> <li>• Media monitoring</li> <li>• Survey: short version</li> </ul>	<ul style="list-style-type: none"> <li>• Most consultancy firms and individuals that specialize in social impact assessment (SIA) and environmental impact assessment (EIA)</li> <li>• University groups and centres</li> <li>• Media monitoring companies (for this component specifically)</li> </ul>	<ul style="list-style-type: none"> <li>• Research design, basic knowledge of (and an openness to use) multiple methods that may be deployed to conduct reputation research</li> <li>• The presence of at least one experienced researcher in the design of the project</li> <li>• The presence of appropriate social science qualifications as well as mining-specific experience among staff</li> <li>• Experience with (at least) the following is a good sign: <ul style="list-style-type: none"> <li>– small- and medium-scale local survey projects with extractive sector companies</li> <li>– SIA and EIA</li> <li>– working with larger research agencies and institutions on more complex projects</li> <li>– knowledge of formal university ethical and Privacy Act requirements in research context</li> </ul> </li> </ul>
Intermediate	<ul style="list-style-type: none"> <li>• Desktop review</li> <li>• Media monitoring</li> <li>• Interviews/focus groups</li> <li>• Survey: short version</li> </ul>	As above	As above
Advanced	<ul style="list-style-type: none"> <li>• Desktop review</li> <li>• Media monitoring</li> <li>• Interviews/focus groups</li> <li>• Survey: long version</li> <li>• Workshops</li> <li>• Repeated process each year</li> </ul>	<ul style="list-style-type: none"> <li>• Research agencies</li> <li>• Universities and research centres</li> <li>• Larger consultancy firms with established and defined groups with statistical training and experience</li> <li>• Media monitoring companies (for this component specifically)</li> </ul>	<ul style="list-style-type: none"> <li>• Advanced research design, knowledge of methods and multivariate statistical analysis</li> <li>• Combined and integrated quantitative and qualitative method use</li> <li>• The involvement of senior researchers in design, development and execution of projects</li> <li>• Publications in peer-reviewed outlets and an applied research track record in the extractives sector</li> <li>• Higher degrees in social sciences that are typically useful for this level include: <ul style="list-style-type: none"> <li>– applied psychology</li> <li>– statistics and decision sciences</li> <li>– sociology</li> <li>– political science</li> <li>– economics</li> </ul> </li> <li>• Experience with the following is a good sign: <ul style="list-style-type: none"> <li>– large-scale surveys in complex places published publicly, preferably in the extractives sector</li> <li>– contributions to larger, longer-term research projects commissioned by large institutions or funded through competitive grant schemes</li> <li>– SIAs across multiple sites or multiple time points with the same proponent</li> <li>– complex ethical questions that inevitably arise in large-scale research projects in complex locations</li> </ul> </li> </ul>

# THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT

*continued*



## An assessment of life cycle specific issues and contextual factors if the survey is being conducted around an operation

The issues that stakeholders (particularly local communities) feel most strongly about will vary according to the stage in an operation's life cycle. Sources of conflict between communities and companies peak at the operational stage (Franks et al 2014) and it is important to understand these issues, both in terms of how they manifest themselves and their underlying causes in this stage. However, teasing apart these causes may be difficult without understanding their aetiology and how they developed. Tracking stakeholder perceptions from the early stages of an operation's development will assist in understanding how stakeholders think about the operation in the future and how issues and concerns evolve over time. For example, community concerns about dust and noise in the operational stage of a mine (despite levels of these two impacts remaining within conditioned levels) may in fact relate to the extent to which community members feel they were involved in developing impact measurement and monitoring processes at the development stage – this perception of lack of consultation and engagement may be the root cause of concerns about physical impacts.

Resourcing a stakeholder reputation research project is also a key consideration for companies. The costs of the multiple components required to complete such a project will vary considerably from context to context; the same-sized project in two different parts of the same country may be quite different, for example. The influence of remoteness, security concerns, access to telecommunications infrastructure and the internet, cultural norms regarding face-to-face interactions with researchers and time of year (ie accessing remote areas during rainy seasons or engaging communities around nationally significant holidays), among many others, may all significantly affect the cost and ability to conduct this kind of work.

### CASE STUDY

#### Listening to the city of Cajamarca about Minera Yanacocha (Yanacocha) and Conga Project

Who are relevant stakeholders? Often this question needs to be asked to remain responsive to emerging stakeholder issues. A study conducted by the Centre for Social Responsibility in Mining (CSRSM) from the University of Queensland (UQ), at the invitation of Newmont's Yanacocha, demonstrates how to connect with a community that has previously been peripheral to stakeholder engagement activities.

The urban area of Cajamarca was not the primary focus of Yanacocha's community engagement and social development activities. Rather, the company was more focused on near-mine communities in its "area of influence". Connecting with the Cajamarca community was initiated through a study of the perceptions people in the urban area of Cajamarca city had of Newmont and its Yanacocha and Conga Project.

The research team spent two weeks in-country and spoke to approximately 60 people in Cajamarca and Lima. Study participants in Cajamarca included local community members, representatives from local authorities, institutions and civil society organizations, in addition to personnel from Yanacocha. Participants were recruited using diversity criteria agreed to by the company. More than half the interviewees were from the Cajamarca region, with the majority residing in the city of Cajamarca.

The study reported on:

- community perspectives, experiences, stories and views about company–community relationship dynamics – both historic and contemporary
- the dynamics that led to entrenched relationship tensions and conflict with Yanacocha
- potential strategies for "reconnecting" with stakeholders in Cajamarca city.

Source: Kemp et al 2013.

Within companies, too, the complexity of the research process will determine what level of internal resourcing will be required to support such a research activity. Typically, senior site-based leaders will need to be aware but not necessarily engaged in developing the work, with external relations/community engagement teams generally bearing the greatest load to complete these kinds of projects. These teams should expect to spend at least a month or two working consistently with the research partner to develop and refine the survey instrument and agree to an approach for executing the project. Time before and after facilitating relationships to enable interviews with key stakeholders may also be required. The time required ensuring that outputs are in a format that enables those in more senior roles to understand the work and its findings should also not be underestimated. It is important to stress to the research

partner in these projects that they are writing reports for industry professionals who may not have any background in the social sciences and may perhaps even have antipathy towards its methods: it is important that project outputs are accessible, written in plain language and focus on the narrative within the data.

# THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT

*continued*



## Understanding ethical and legal standards for human research

Reputation research generally involves collecting information from people, and there are both ethical and legal standards that are important to comply with. Failure to consider these issues carefully may result in breaches of privacy acts and laws relating to the transfer of data across national boundaries, attracting significant fines if sanctioned. Ethical breaches may also have serious consequences through loss of trust among stakeholders and reluctance to participate in future research. For those conducting the research, ethical breaches may also result in loss of licence or accreditation depending on professional affiliations and memberships. Most importantly, legal or ethical breaches may expose the stakeholders themselves to elevated levels of risk and consequence through participation in research activities.

Using Australia as an example, there is requirement for institutions and researchers to follow the National Statement on Ethical Conduct in Human Research (2007), and organizations are subject to relevant state and federal legislative requirements regarding privacy, for example the Privacy Act 1988 and Privacy Amendment (Private Sector) Act 2000. Some key features of an ethical research study include:

- participants are informed about the purposes of the survey and consent to participating, including all potential uses of their information
- incentives, such as the payment of participants, are limited and appropriate, both socially and culturally, for incentives can create a bias in who participates and/or offend – a good rule of thumb here is that if an incentive is so attractive that participants feel they cannot afford not to participate, then it is probably too generous
- only information necessary to the purposes of the survey is collected
- identifying information for further contact about the survey is stored separately from the participants' responses
- the reporting of findings does not identify any individuals (unless with explicit permission to do so as in some interview processes)
- the information is stored securely and retained for a specified period (usually five to seven years)
- the participants are provided with information about the findings (this can be in the form of a one-page report, a briefing or opportunity to ask questions in a public forum or privately)
- any conflicts of interest or dependence arising from the role of researchers and organizations (in conducting the research), and the parties from whom information is being collected are mitigated.

The last point in the list above (issues of potential dependence) is an important one to consider further. The nature of many local mining communities and stakeholders is that the mine is often the chief source of local employment. It is important that participants do not feel that not participating in the research may impact them negatively in any way. There may be a concern, for example, that choosing not to participate or responding negatively to the questions posed may harm chances of gaining employment with the mine or cause them to lose their jobs. Employing a trusted third party to conduct the research may be one way to mitigate this risk, as is working hard to reassure participants that their personal information will not be associated with their responses.

Engaging Indigenous Peoples, First Nations peoples or other potentially vulnerable groups in the survey process can have immense benefit, but there are sensitivities to navigate so that no inadvertent harm to these stakeholders occurs. ICMC's *Indigenous Peoples and Mining Good Practice Guide* (2011) and *Community Development Toolkit* (2012) are excellent sources of information regarding the consideration of these stakeholder groups.

# THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT

*continued*



## 2.2

### Methods of data collection

Although strong emphasis is placed on survey design and implementation in this toolkit, a range of methodologies is important in conducting reputation research. Broadly, research methods in this area may be grouped into quantitative and qualitative categories. Each has a range of strengths and weaknesses, most effectively managed through developing a mixed method design featuring elements of both.

Using a range of methods speaks to a key question for any research undertaken: are we measuring what we intend to measure? If a research process is poorly designed or uses poorly constructed measures, then the exercise is worse than flawed, it may lead to decision making based on faulty information that causes harm or greater issues for stakeholders, company and industry reputation and future relationships between companies and stakeholders.

#### CASE STUDY

##### Sustainable Juruti: utilizing multiple methods to engender local participation

Juruti is a municipality in the west of Brazil on the banks of the Amazon. Originally a Munduruku Indian village, Juruti has seen many transformations, including the economic cycles associated with rosewood and jute industries and, more recently, the Alcoa bauxite mine.

The Sustainable Juruti Model was the Alcoa seeded initiative to not only meet but exceed the environmental and social indicators required for legal licensing. The vision was to provide a new benchmark for sustainable local development that could be expected from corporate interventions, such as new mining developments.

Commencing in 2006, Alcoa sought the social and environmental expertise of the Center for Sustainability Studies of the Getulio Vargas Foundation and the Brazilian Biodiversity Fund. The model was founded on the following premises:

- broad and effective participation by all society
- a territorial approach that focused on Juruti while recognizing impacts may flow to other territories
- dialogue within a global, regional and local context to provide a long-term perspective on the sustainability of local development
- internalization by Alcoa of the principles and values of sustainability in its management processes and practices.

Community participation was an essential part of constructing the model, including the indicators of local sustainable development. Community participation challenged perceptions about how resources or capitals are conventionally categorized and, instead, constructed themes that were consistent with local knowledge, observations and expectations.

The collaborative construction of the indicators was a two-year process, involving:

- more than 500 representatives of local and regional institutions, including the creation of a local forum/council
- a series of surveys, workshops and meetings
- extensive bibliographical and field research.

The Sustainable Juruti Model illustrates how multiple methods of data collection can be used to actively involve the community in decision making about local development as part of constructing more meaningful and accepted indicators of a mining operation's social licence to operate and reputation.

Sources: Center for Sustainability Studies of the Getulio Vargas Foundation et al 2008, Center for Sustainability Studies of the Getulio Vargas Foundation 2009.

# THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT

*continued*



The following list describes a range of standard methods that are commonly used for collecting measures of reputation:

## Desktop review

This method yields primarily qualitative insights, and involves accessing existing materials. The range of existing materials can include academic articles, relevant reports (produced by industry, company, NGOs and government) and websites. Some desktop reviews also include existing quantitative information.

## Media monitoring

Media monitoring services provide access to media publications and summaries of these publications. These publications usually include print, online and broadcast sources. These sources are primarily qualitative though they can often be converted into quantitative measures and summarized numerically. Most companies monitor media reports regarding their operations, and integrating this information into reputation research can be a powerful way to define relevant issues.

## Interviews

These also access mainly qualitative measures of reputation, but quantitative measures can also be included explicitly or qualitative data coded numerically to yield quantitative data (eg number of times a particular issue or theme is mentioned). Interviews usually involve a single stakeholder engaged by a skilled interviewer. The interview process can be guided by a well-defined structure or open-ended and depending on the context can range from a short amount of time, such as 15 minutes, to a more extended period, such as an hour. Interviews can access detailed information about stakeholders' perceptions of a company's reputation.

### BREAKOUT BOX 2

#### Quantitative versus qualitative research methods in reputation research

##### Quantitative research methods:

- are used to capture stakeholders' perceptions of reputation using a numerical value
- provide a standardized way of measuring relatively well-established concepts
- if the quantitative measures are valid and reliable, allow reputation concepts to be measured efficiently across large populations and then used in statistical analysis
- allow for the tracking of change in attitudes across time using numerical values.

##### Qualitative research methods:

- typically capture stakeholders' perceptions of reputation using words or thematic categories
- allow novel concepts to be explored and greater detail to be sought about existing concepts
- are generally context sensitive and yield rich detailed information, though the process of collecting and analyzing this information can be resource intensive
- are very useful in developing survey content and "grounding" the results of survey data in the context it was collected.

## Focus groups

These are relatively unstructured discussions among a small group of stakeholders, guided by a facilitator. They are primarily qualitative in nature.

## Workshops

These processes are similar to focus groups as they are typically discussion based and yield qualitative measures of reputation. However, workshops are generally more structured, involve more people and are held over a greater period of time, for example a day-long workshop.

## Surveys

Typically, these yield quantitative measures that are representative of a large population by asking direct questions through a questionnaire. Surveys can also be undertaken on smaller groups and include qualitative measures.

Table 3 provides a summary of the strengths and weaknesses associated with each method and the common rationales for applying them.

**“MOST COMPANIES MONITOR MEDIA REPORTS REGARDING THEIR OPERATIONS, AND INTEGRATING THIS INFORMATION INTO REPUTATION RESEARCH CAN BE A POWERFUL WAY TO DEFINE RELEVANT ISSUES”**

# THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT

*continued*

# 2

**Table 3:** Summary of strengths and weaknesses of data collection methods

DATA COLLECTION METHOD	COMMON USES	STRENGTHS	WEAKNESSES
Desktop review	<ul style="list-style-type: none"> <li>Establishing preliminary insights about reputation prior to further data collection through other methods that access current measures of reputation</li> </ul>	<ul style="list-style-type: none"> <li>Existing information, therefore access to existing perspectives or historical perspectives</li> <li>Informative about context</li> <li>Generally low cost</li> </ul>	<ul style="list-style-type: none"> <li>Restricted to the nature of the existing information</li> <li>The information is often originally collected for an alternate purpose</li> <li>Evaluating the relevance of sources and scope can be challenging</li> </ul>
Media monitoring	<ul style="list-style-type: none"> <li>Continuous observation of media reporting of company's reputation</li> <li>Observation of changes or not in company's reputation during periods of positive or negative impacts from resource development</li> </ul>	<ul style="list-style-type: none"> <li>Readily available through subscription services, including analyses of key themes and trends</li> <li>Allows early and/or ongoing detection of trends</li> </ul>	<ul style="list-style-type: none"> <li>The information is derived from media reports, not directly from stakeholders</li> <li>Media reports may over-represent or exaggerate the importance of particular issues</li> </ul>
Interviews	<ul style="list-style-type: none"> <li>Accessing detailed measures of reputation from a select group of stakeholders</li> <li>Often used prior to a large-scale survey to inform the scope of the survey or after the survey to collect further details on specific issues</li> </ul>	<ul style="list-style-type: none"> <li>Detailed information</li> <li>Can be adapted to suit the context and/or participant</li> <li>Personal and effective in demonstrating interest in stakeholder perspectives</li> </ul>	<ul style="list-style-type: none"> <li>Can be time-consuming to conduct and resource intensive to analyze</li> </ul>
Focus groups	<ul style="list-style-type: none"> <li>Exploring a range of perspectives towards novel or challenging concepts</li> <li>Often used prior to a large-scale survey to inform the scope of the survey or after the survey to collect further details on specific issues</li> </ul>	<ul style="list-style-type: none"> <li>Allow a range of perspectives to be accessed</li> <li>Group process can elicit perspectives that may have remained hidden</li> <li>Ideas and perspectives may evolve through discussion</li> </ul>	<ul style="list-style-type: none"> <li>The quality of information relies on the facilitator to ensure a range of perspectives are sought throughout the focus group</li> <li>Sensitive issues may be difficult for stakeholders to discuss publicly</li> </ul>
Workshops	<ul style="list-style-type: none"> <li>A process that can be used to collaborate with stakeholders on preparing a large-scale survey</li> <li>A process for collaborating with stakeholders to action items following a large-scale survey</li> </ul>	<ul style="list-style-type: none"> <li>Can include both discussions and the actioning of items from discussions</li> <li>Can include planning activities, sense making and consent-seeking processes</li> <li>Can involve a range of stakeholders and collect a range of perspectives</li> </ul>	<ul style="list-style-type: none"> <li>Can be resource intensive to prepare and distil information collected</li> <li>Requires skilled facilitator</li> <li>Majority group or high-power voices may dominate discussion</li> <li>Sensitive issues may be difficult for stakeholders to discuss publicly</li> </ul>
Surveys	<ul style="list-style-type: none"> <li>Informing stakeholder engagement by establishing baseline of stakeholder perspectives and tracking over time</li> </ul>	<ul style="list-style-type: none"> <li>Standardized quantitative measures of reputation</li> <li>Can access large samples of stakeholders efficiently</li> <li>Allow for tracking over time</li> <li>Allow for comparison within and between groups</li> </ul>	<ul style="list-style-type: none"> <li>Requires pre-existing knowledge of reputation concepts being measured</li> <li>Some stakeholders may be excluded due to the time it takes to complete a questionnaire, access to the questionnaire or capacity to participate</li> </ul>

# THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT

*continued*

# 2

Figure 1 demonstrates how the range of data collection methods can be used in an ongoing, integrated process of measuring a company's reputation. Acknowledging that different companies will have different needs, resources and capacities, a graduated framework of research design complexity and comprehensiveness is used to organize these methods. Each subsequent level incorporates the methods of the preceding level.

## Standard A lean process of investigation

- Internal discussion (eg using the questions in the Breakout box 1 in Section 1) provides direction and defines scope and desired outputs from the research process.
- A desktop review is used to source preliminary information, and key stakeholders and issues are identified.
- A survey instrument (eg based on the template in Section 3) is developed and implemented.

## Intermediate Grounding research in its context

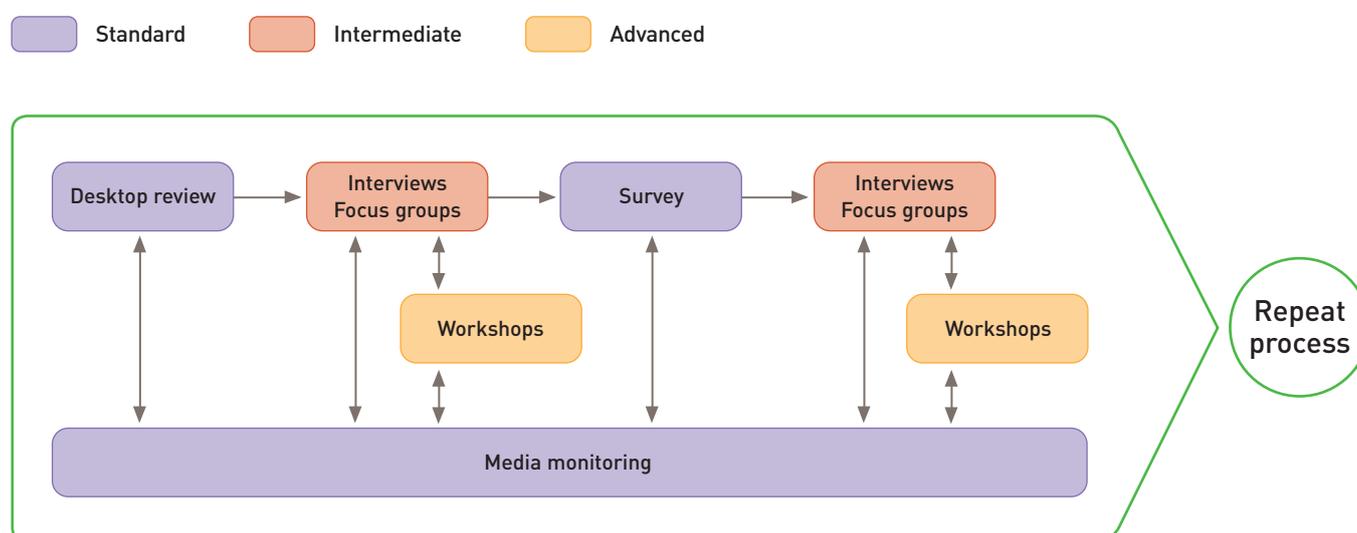
- Following internal discussions and a desktop review, qualitative methods such as interviews and focus groups with stakeholders may be deployed to establish important reputation drivers (eg community investment programs) and contextual features (eg proximity to the mine, history of environmental performance), and test whether those issues identified through desktop review resonate with stakeholders themselves (eg issues change in importance across time, media reporting may exaggerate or overemphasize issues relative to the views of stakeholders).
- Qualitative data is used to develop a survey instrument whose content reflects what is important to stakeholders.
- Following the survey process, interviews may be used to test whether the patterns and relationships observed in the quantitative data reflect the experiences and perspectives of stakeholder groups. This is particularly valuable when counter-intuitive survey results are observed.

## Advanced Using research on reputation to influence reputation

- In addition to those activities and methods described in the Standard and Intermediate levels of research design, workshops may be used in the development of the survey instrument and, after the survey data is collected, to generate interest and buy-in from stakeholders, offer opportunities to respond to the data collected, participate in developing actions to address issues identified in the research and establish deeper relationships with mine staff and the company.
- An Advanced research process would also seek to repeat the process described in Figure 1 at least yearly to track change across time and against benchmarks; demonstrate a commitment to stakeholders to engage them consistently; and examine the impact of engagement strategies, investment and communications activities on reputation measures.

**Figure 1: Utilizing the range of data collection methods in an ongoing process of measuring company reputation**

Note: Each level is represented by a different colour and each subsequent level includes activities described in the previous level.



# THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT

*continued*



Within an Advanced approach to reputation research, companies may also consider embracing new, digital forms of data collection that emergent technologies offer. These include the use of online data collection platforms such as QuestionPro or even more comprehensive versions of SurveyMonkey. These platforms allow for surveys hosted online to be deployed in the field using offline tablet devices by field workers and engagement specialists. Data is downloaded automatically or when next within Wi-Fi range to a central, secure repository for cleaning and analysis. This provides a cost-effective and secure data collection method for field-based work.

The penetration of mobile phone technology has also provided opportunities for collection of data in new ways. While in countries such as Australia or Canada, smartphones allow for comprehensive surveys to be completed wherever a stakeholder is located (QuestionPro, for example, enables scaling of surveys to whatever iOS device a user may own), in mining jurisdictions such as South Africa or Peru, smartphones have lower levels of uptake and data download costs and access may be prohibitive for large-scale surveys. However, Short Message Service (SMS)-based data collection platforms are emerging as a viable option for collecting short, frequent surveys from stakeholders. Such methods enable the collection of data from the same participants across time to track within-person changes and patterns of sentiment. They also have the advantage of accessing stakeholder views in natural contexts rather than in formal interview or household survey meetings.

## CASE STUDY

### Ulula: how technology can support engaging stakeholders in data collection and communications

Ulula services high-impact industries, including mining, by combining expertise in both SIA and technology to provide a platform for engaging stakeholders, especially through data collection.

A small start-up company, Ulula represents a new way of engaging with and seeking information from communities of stakeholders affected by mining using enabling technologies. Ulula's process for building communications and analysis platforms consists of co-designing the platform to meet the needs of complex social problems; collecting data through mobile phones, open source and machine data; managing the data flow; and data analysis. The platform can access most populations due to the now high mobile phone penetration rates in most parts of the world. The platform also provides real-time data in a cost-effective manner, which can be scaled to both small and large populations.

Service providers like Ulula are likely to become more common as efficient use of low-cost and ubiquitous technologies are developed to access the views of stakeholders. Further, the engagement of research institutions and partners, including UQ's CSR, the Harvard Humanitarian Initiative, the Qatar Computing Research Institute, Plan International, the Omidyar Network, the Shared Value Initiative, Thamani, Pragmaxion, Data-Pop Alliance and Astoria Analytics, allows Ulula, as an example small enterprise, to access much deeper pools of knowledge and experience than may otherwise be the case.

Source: Ulula.com.

Finally, companies may also seek to develop panels of stakeholders that they access periodically regarding their perceptions and views. As long as these panels are representative of the stakeholder groups they represent, they offer an opportunity to collect a reliable sample of data regularly from the same stakeholders across time.

**“SMS-BASED DATA COLLECTION METHODS ENABLE THE COLLECTION OF DATA FROM THE SAME PARTICIPANTS ACROSS TIME TO TRACK WITHIN-PERSON CHANGES AND PATTERNS OF SENTIMENT”**

# THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT

*continued*



## 2.3

### Survey structure and content

This section presents a guide on the structure of a reputation survey and suggested content to broadly and comprehensively understand reputation and relationships with stakeholders. This structure reflects an aspiration to move beyond traditional understanding of reputation to one that reflects a range of inputs and behaviours by companies.

Four item categories are described that seek to elicit different types of information from participating stakeholders through the survey instrument:

- demographic items – information about participants themselves, including information that will identify what stakeholder groups they are linked with
- issue and impact items – measures of how the company is perceived to interact with the context in which it operates, both negatively and positively
- relational items – measures of how the company is perceived to interact with its stakeholders
- outcome items – measures of how stakeholders perceive a company's/industry's reputation, their acceptance and approval of the company/industry and their behavioural intentions towards the company/industry.

The order of these item categories is purposeful. Measures that your stakeholders can readily and easily respond to, demographic measures, are presented first. This allows participants to feel their way into the structure of the instrument and the nature of the responses they will provide. After that comes content that relates to their experiences with the mine and its people, with outcome items last.

It is important for data analysis (especially within the Advanced research approach) that those items (eg experiences of environmental impact) expected to affect the outcome variables included (eg company reputation and acceptance of the operation) appear first. This allows for greater confidence that responses to these outcome items do not influence stakeholder perceptions of their experiences of issues, impacts and relationships.

### Demographic measures – understanding who respondents represent

Demographic measures serve the simple purpose of describing who survey participants are. This is vital information for:

- identifying and understanding the perspectives of different stakeholder groups in the analysis of the data
- understanding and demonstrating the representativeness of the sample collected (it is as important to understand which stakeholder groups have not been accessed or are under-represented as those that have been accessed)
- exploring differences in the views and perspectives within and between stakeholder groups
- providing one way of explaining different patterns in the data.

Demographic categories commonly used in reputation research include:

- age
- gender
- education level
- income level (household and/or individual)
- geographical location when conducting the survey
- place of residence (if this is different to stakeholder's location when completing the survey – such as those that Fly In Fly Out of operations, for example)
- cultural/language group and Indigenous status
- employment status and occupation
- whether stakeholders own their house, rent or have some other living arrangement
- marital status and family size
- nationality
- political affiliation or past voting behaviour
- stakeholder categories identified through previous stages of the research process (eg institutional investor, NGO, mine employee).

# THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT

*continued*



There are also a number of additional ways in which stakeholders may be categorized. There are many ways of categorizing stakeholders and the following offer different perspectives on how this may be achieved. The key decision point for which categories to include relates specifically to what the research is seeking to achieve. Table 4 lists a number of additional ways that demographic variables may be categorized, drawn from the following sources:

- ICMM's Community Development Toolkit
- Clarkson's (1995) definitions of primary and secondary stakeholders
- stakeholders' social identities (Crane and Ruebottom 2011)
- the density of the stakeholder network and the stakeholders' respective centrality within the network (Thomson and Boutilier 2011).

**Table 4: Additional demographic measurement categories, descriptions of each and examples**

MEASURES	DESCRIPTION	EXAMPLES AND SOURCES
Basic demographic information	Characteristics that can identify participants compared to the larger population	National statistical bureaus, eg age, gender, location and income
Affected parties, interested parties or authorities	<p>Affected parties: stakeholders who are affected directly or indirectly by the operation, either positively or negatively</p> <p>Interested parties: stakeholders who have an interest in or influence over the operation although they are not affected</p> <p>Authorities: include the different levels of authority (eg local and national) that are involved in administration of the operation</p>	<p>Questions requiring categorical responses and a qualitative question asking for a description, eg [affected parties] Are you directly or indirectly affected by the mining operation, either positively or negatively? (yes or no)</p> <p>In relation to this effect, how would you describe yourself? Eg an employee, local resident, local business person, indigenous person? List all relevant descriptions</p>
Primary and secondary stakeholders	<p>Primary stakeholders have contractual relationships with the company and can include clients, suppliers, employees, shareholders</p> <p>Secondary stakeholders are not engaged in such contracts and often include authorities and the local community</p>	<p>Direct questions asking for a categorical response and a qualitative question asking for a description, eg Have you contractual relationships with company X?</p> <p>What type of contractual relationship do you have, eg employee, supplier?</p>
Social identities	Knowledge of membership to a social group (or groups) together with the value and emotional significance of that membership	<p>If existing groups are known, questions asking about the degree of identification with groups, or if categories are unknown, qualitative measures to inform categories, eg How strongly do you identify as (1 = strongly disagree to 5 = strongly agree):</p> <ul style="list-style-type: none"> <li>• a local farmer</li> <li>• a local resident</li> <li>• a mine employee</li> <li>• a local indigenous person?</li> </ul>
Stakeholder network density and centrality	<p>Density is the proportion of ties in the network relative to the number of possible ties</p> <p>Centrality is the stakeholders' position in the network relative to others (Note: specialized network analysis of this data is required)</p>	Once categories of stakeholders are established, participants are asked to list the frequency and nature of contact with each stakeholder group and the company, eg How frequently do you have contact with the following groups (1 = never to 5 = always)?

# THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT

*continued*



## Issues and impacts – perceptions of a company’s economic, environmental and social impact (positive and negative)

Stakeholder experiences with different aspects of a company will shape stakeholders’ perceptions of the company, and perhaps the industry more broadly. It is therefore important to measure perceptions of those issues and impacts, positive and negative, that are most relevant to stakeholders. This section will describe how to populate a survey with items that make this task easier.

In many ways the challenge for developing a survey instrument is in restricting the number of issues and impacts, and the depth to which these topics are examined, included in a survey instrument. Generally, online surveys that take longer than 20 minutes to complete and face-to-face household surveys that are longer than 30 minutes are unacceptable to stakeholders. The task is therefore to identify a comprehensive, yet manageable list of topics for inclusion.

Desktop analysis and qualitative research methods described in Section 2.2 provide an excellent way to narrow what may appear to be an endless list of issues and impacts into thematic categories or priority areas for examination. Other useful sources of information in determining important categories include client relationship management databases, grievance registers and the experiences of community engagement specialists within companies.

There are a number of social impact frameworks or guiding documents and standards in common use in the extractive industries that may assist in developing appropriate survey items.

### CASE STUDY

#### The Ravensthorpe Monitoring Framework: measuring issues and impacts

The Ravensthorpe Monitoring Framework was developed by the CSRSM, and represents an example of participatory impact framework development. The framework (Brereton et al 2007) was designed specifically for monitoring community impacts, ie the contribution of Ravensthorpe Nickel Operation to “community sustainability”.

The framework is built on the “five capitals” model of sustainable development. This framework includes the conventional concept of capital – economic capital – while also including the other capitals that support sustainable community development: human, social, built and natural capital.

Until Ravensthorpe Nickel Operation, the Shire of Ravensthorpe was a small, rural community. The nickel operation was set to bring unprecedented opportunities to the community, though there were challenges to capitalizing on these opportunities. Although the operation did not subsequently proceed as planned, the monitoring framework that was developed to guide the community’s key stewards – local government, mine management and various community groups in delivering on these opportunities – represents good practice.

The framework was developed through:

- consultation with a broad cross-section of community stakeholders to identify what they perceived as the main issues for the region arising from the mine
- a workshop with the Community Liaison Committee to review findings from the consultations and identify priority areas for attention
- development of a draft framework, organized around the five capitals framework to address the priority issues identified
- review, validation and endorsement of the draft framework by mine management and the Community Liaison Committee.

Sources: Brereton and Pattenden 2007, Brereton et al 2007.

Nine prominent frameworks used in the extractive industries are:

- ICMM’s **10 principles**
- Global Reporting Initiative (GRI) **Mining and Metals Sector Supplement**
- The World Business Council for Sustainable Development (WBCSD) **Measuring Impact Framework**
- ICMM’s **Community Development Toolkit**
- ICMM’s **Approaches to understanding development outcomes from mining**
- **Extractive Industries Transparency Initiative (EITI)**
- The University of Queensland’s (UQ) Centre for Social Responsibility in Mining’s (CSRSM) **Community Impacts Monitoring and Management Strategy (CIMMS)**

- The International Finance Corporation’s (IFC) **Development Outcome Tracking System (DOTS)**
- The Australian Government’s **Leading Practice Sustainable Development Program for the Mining Industry**.

A review of impact assessment frameworks (FDC and PwC 2009) found that no one framework performs highly across all the impact areas of social, environmental, economic/financial and governance/political; each framework has strengths and weaknesses. No one framework or set of guidelines is adequate for every operation in every context. Hence, a leading practice social impact monitoring framework will need to draw on multiple sources of guidance. What is most important is that the issues and impacts that are important to stakeholders are included (it is very easy to include a long list of items that reflect the issues and impacts that occupy companies without checking to ensure these are also of equal importance to stakeholders).

# THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT

*continued*



Most frameworks may be categorized as using the well-established triple-bottom-line framework (with some adding “governance”). However, most leading practice companies adopt a more complex model for organizing issues and impacts. One of these, the Five Capitals model of sustainable development may be a good place to start thinking about categorization. It was developed in the 1990s and its appeal lies in the scholarship underpinning its organization, taking a lead from Putnam’s (1993) influential work on the connections between “the social” and “the economic” and recent research on the connections between environment and society [see Bowler et al 2002].

While different frameworks categorize impacts slightly differently, particularly in the social domain, leading practice indicates that contextually driven indicators are critical to the legitimacy and relevance of an impact framework. What appears to matter across all frameworks is that:

- the impacts that stakeholders consider to be most significant, or material, are measured and monitored effectively and transparently
- the process of monitoring social impacts, including developing indicators, is participative or inclusive
- the company responds to stakeholder issues with decisions, actions, performance and communication.

## Relational measures – perceptions of how a company interacts with its stakeholders

The relationship between a mining and metals company and its external stakeholders plays a vital role in ensuring development is socially sustainable and holds a social licence to operate. Understanding the nature of these relationships, and the way they affect trust in a company/industry and acceptance of an operation/industry, adds an important dimension to reputation research. High scores on these items reflect and demonstrate that a company has been able, through effective engagement, to gain the trust and acceptance/approval of stakeholders (rather than assuming that a social licence exists). As such, a social licence is typically developed through the establishment of meaningful partnerships between operations, communities, government and other important stakeholders based on mutual trust. Through consistently acting in a trustworthy manner, companies are able to build a bank of goodwill or relational capital that may buffer the negative effects of unintended breaches of community expectations at a later time or engender greater flexibility among key stakeholders in response to future negotiations or change.

Extending traditional conceptualizations of reputation research to incorporate assessment of these concepts adds (potential) explanatory power to analyses and reflects an understanding that the path to reputational improvement incorporates the quality of the relationships a company has with its stakeholders.

Research has demonstrated that contact quality and quantity, procedural fairness and distributional fairness are key aspects of social licence and positive relationships with stakeholders at local and national scales in multiple country contexts (Moffat and Zhang 2014; Moffat et al 2014a, 2014b).

They can be measured in the following way:

**Contact quality** between company personnel and its stakeholders refers to the positive feeling coming from the interaction. Well-established measures include asking stakeholders how pleasant and how positive their interaction with company personnel is.

### *Example measure*

Thinking about your interaction with the personnel from XX company, please rate how pleasant (1 = very unpleasant, 5 = very pleasant) and how positive your experience is? (1 = very negative, 5 = very positive)

**Contact quantity** includes the interaction between company personnel and its stakeholders on various occasions. It can be measured by asking stakeholders how much contact they had with people within a company.

### *Example measure*

Thinking about your interaction with the personnel from XX company:

- how much contact do you have with them at community meetings or events?
- how much contact do you have with them informally in your local area?
- how much contact do you have with them over all social situations?

(1 = none at all, 5 = a great deal).

**“A SOCIAL LICENCE IS TYPICALLY DEVELOPED THROUGH THE ESTABLISHMENT OF MEANINGFUL PARTNERSHIPS BETWEEN OPERATIONS, COMMUNITIES, GOVERNMENT AND OTHER IMPORTANT STAKEHOLDERS BASED ON MUTUAL TRUST”**

# THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT

*continued*



**Procedural fairness** refers to whether stakeholders perceive that they have had a reasonable voice in decision-making processes, reflecting whether a company values and respects its stakeholders in the processes used to plan and implement decisions that affect them. Procedural fairness also refers to the extent to which stakeholders feel heard, respected and that a company has responded to their concerns.

### *Example measure*

Thinking about how XX company has conducted its business, please rate the extent to which you agree that:

- people in your community have opportunities to participate in the decisions made by XX company
- XX company listens to and respects your opinions
- XX company is prepared to change its practices in response to community sentiment

(1 = strongly disagree, 7 = strongly agree).

**Distributional fairness** focuses on the extent to which stakeholders feel that the economic benefits of mining have been distributed fairly, and that stakeholders have received a fair share of these benefits.

### *Example measure*

Thinking about the financial benefit of the mine operation, please rate the extent to which you agree that:

- generally speaking, the economic benefits of mining are distributed fairly in the community
- people like me receive a fair share of the benefits from mining

(1 = strongly disagree, 7 = strongly agree).

## CASE STUDY

### Learning from other industries: the utility of sophisticated and ongoing assessment of a company's reputation and an operation's social licence

Since 2010, the Commonwealth Science and Industrial Research Organisation (CSIRO) has been assisting Santos Limited to develop a social impact measurement and monitoring tool for the Santos GLNG operation in Queensland, Australia. In this project, CSIRO and Santos GLNG worked together to develop a stakeholder research program that collected stakeholder perception data across the project footprint at three time points. Quantitative survey methods were used, supported by qualitative community engagement, to explore and ground the survey findings in context.

From the survey data, descriptive statistics were generated, as well as more advanced inferential statistics. The value of this approach was evident when an unexpected pattern of results was observed in the descriptive data: community perceptions of negative impacts attributed to the operation increased from the first year of data collection to the second, but the relationship between the company and the community improved significantly in the minds of community stakeholders over the same time period.

Path analysis on the key variables associated with social licence to operate (perceptions of impact, procedural fairness and contact quality and quantity as they relate to trust in and acceptance of the company) demonstrated that there was a strong positive relationship between procedural fairness and perceptions of impact, explaining the apparent dual narrative in the descriptive data. That is, when community members felt that Santos GLNG was treating them with respect, listening to their concerns and changing its behaviour based on these concerns, perceptions of impacts were more positive.

This demonstrated to Santos GLNG the importance of community engagement strategies that emphasized inclusion of community members in decision-making processes and the power of tracking data across time.

# THE PROCESS OF DEVELOPING A SURVEY INSTRUMENT

*continued*



## Outcome measures – the effect of a company's activities

Outcome measures provide an opportunity to examine the effect of a company's activities in different ways. In some ways, the preceding categories of measures are most important for their power in predicting or explaining the level of responding on these outcome variables: responses to these items reflect the product of a company's activities, positive and negative.

**Trust in a mine company** is regarded as central to gaining social licence to operate in mining. In addition, there is strong evidence to suggest that trust is a critical vehicle by which issues and impacts (positive and negative) and relational variables affect the other outcome measures included here.

### *Example measure*

Thinking about XX company, please rate to what extent that:

- you have confidence in the company
- you have trust in the company
- you have goodwill toward the company
- in general, how much you trust the company to act responsibly

(1 = none at all, 5 = a great deal).

Trust in a range of other important actors may also be assessed simultaneously to benchmark the company against regional peers, different levels of government and NGOs active at local and national levels in the focal mining jurisdiction, among others.

**Behavioural intention** is another way to gauge stakeholders' attitude towards the mine operation in their community. It examines the likely future behaviour of stakeholders towards company personnel based on their past experiences.

### *Example measure*

Thinking about the people from XX company, please rate to what extent that:

- you tend to argue with them
- you tend to oppose them
- you tend to confront them
- you tend to avoid them
- you tend to have nothing to do with them
- you tend to keep distance from them
- you tend to find out more about them
- you tend to spend time with them
- you tend to talk to them

(1 = not at all, 5 = very much so).

**Overall reputation** reflects stakeholders' general feelings towards the mine company.

### *Example measures*

Including those in the lexicon report drawn from ICMM members:

Thinking about XX company:

- what is your overall opinion or impression of XX company?

(1 = very unfavourable, 5 = very favourable).

How would you rate the overall reputation of the following industries/companies?

(using a scale of 1 to 7 where 1 means the industry/company has a "very bad" reputation and 7 means the industry/company has a "very good" reputation).

What is your overall opinion of the mining industry in X country?

- very unfavourable
- unfavourable
- favourable
- very favourable.

For the following set of companies, taking into account all of the things that you think are important, how favourable or unfavourable is your overall opinion or impression of each company? Would you say your impression is:

- very favourable
- mainly favourable
- neutral
- mainly unfavourable
- very unfavourable?

**Acceptance and approval of mine operation/industry** may be seen as a proxy measure for the level of social licence to operate that a company (as reflected in the operation of focus) and the industry more broadly hold.

### *Example measure*

Thinking about company X overall, please rate the extent to which you:

- reject company X
- tolerate company X
- accept company X
- approve company X
- embrace company X

(1 = not at all, 5 = very much).



**A TEMPLATE  
SURVEY  
INSTRUMENT**

The previous section described the process of developing a survey instrument. This section provides a template survey instrument.

## A TEMPLATE SURVEY INSTRUMENT



In this section, a template survey instrument is provided to assist in stakeholder reputation research. The goal of providing a template is to begin the process of collecting consistent, systematic data regarding stakeholder perceptions in the mining and metals industry. Items included are not exhaustive and serve to illustrate effective formats and core items for consideration and inclusion in company research activities.

The template survey instrument included here has been designed for use with local community stakeholders surrounding a mining operation in Australia. The content will need to be modified for local contexts (eg demographic items, some impact items), different stakeholder groups and different scales of analysis (eg for local operational stakeholders, national operational contexts).

The template survey instrument contains two types of items for consideration:

- a short version of items intended for use in brief stakeholder surveys, in line with Standard and Intermediate research design intentions regarding analysis and use of the data collected
- an extended version of items intended for use in more detailed stakeholder surveys, in line with Advanced research design intentions regarding analysis and use of the data collected.

The measures provided have been previously validated and replicated in research of stakeholders' perception of resource companies (Moffat and Zhang 2014) and industries (Moffat et al 2014b) and stakeholders' perceptions of corporate reputation (Ponzi et al 2011). The measures reflect drivers of reputation that were previously identified as important in an ICMM review of existing literature of global reputation research of the mining and metals industry (GlobeScan 2013).

# A TEMPLATE SURVEY INSTRUMENT

continued



## 3.1

### Demographic measures

Please indicate which community you live in:	[Local community(ies), eg villages, towns, cities]	<input type="radio"/>
	Other	<input type="radio"/>
	Please type your postal code/zip code:	<input type="text"/>
How long have you lived there?	Less than one year	<input type="radio"/>
	1–3 years	<input type="radio"/>
	3–5 years	<input type="radio"/>
	5–10 years	<input type="radio"/>
With respect to your employment, which of the following best describes your current situation?	Retired	<input type="radio"/>
	Stay-at-home parent	<input type="radio"/>
	Other	<input type="radio"/>
	Employed – part time/casual	<input type="radio"/>
With respect to your employment, which of the following best describes your situation?	Student	<input type="radio"/>
	Unemployed	<input type="radio"/>
	Employed – full time	<input type="radio"/>
	Employed – part time/casual	<input type="radio"/>
With respect to your employment, which of the following best describes your situation?	[Company] employee	<input type="radio"/>
	Other mining company or contractor employee	<input type="radio"/>
	Farmer/grazier	<input type="radio"/>
	Local, state or national government employee (including educational institutions)	<input type="radio"/>
	Employee or owner of small business	<input type="radio"/>
	Employee of community or not-for-profit organization	<input type="radio"/>
	Other, please specify	<input type="text"/>
Which of the following best describes your situation?	I live in my own home (mortgage)	<input type="radio"/>
	I live in my own home (no mortgage)	<input type="radio"/>
	I rent my home privately	<input type="radio"/>
	My rented home is provided by [company]	<input type="radio"/>
	I house share	<input type="radio"/>
	I am seeking to purchase a property	<input type="radio"/>
	I live permanently in mine site accommodation	<input type="radio"/>
	I live in mine site accommodation when on shift	<input type="radio"/>
What is your gender?	Male	<input type="radio"/>
	Female	<input type="radio"/>
Do you define yourself as [an Indigenous person/a First Peoples/ an Aboriginal/an Indian]?	Yes	<input type="radio"/>
	No	<input type="radio"/>
	Prefer not to answer	<input type="radio"/>
Do you speak a language other than English at home?	Yes	<input type="radio"/>
	No	<input type="radio"/>
	If yes, what language?	<input type="text"/>
Please indicate your age (in years):		<input type="text"/>
How many years of schooling have you completed, including pre-primary schooling through to tertiary (university) schooling?		<input type="text"/>
What is your highest level of education?	Primary schooling	<input type="radio"/>
	Secondary schooling	<input type="radio"/>
	Tertiary schooling/university	<input type="radio"/>









# A TEMPLATE SURVEY INSTRUMENT

*continued*



## Community investment

These questions relate to community investment by [company]. Please rate the extent to which you think [the company] social investments:

EXPERIENCED IMPACT	1 STRONGLY DISAGREE	2 DISAGREE	3 NEITHER AGREE NOR DISAGREE	4 AGREE	5 STRONGLY AGREE
Support economic development and business in my area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support better health services in my area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support education and training services and facilities in my area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support cultural and recreational activities and infrastructure in my area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mean my community is better off	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have helped to reduce the negative impacts of [the company] on my community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Apart from the impacts identified above, are there other issues associated with mining you think need to be addressed? If yes, please list below.

# A TEMPLATE SURVEY INSTRUMENT

continued



## 3.4

### Relational measures – short version

#### Your knowledge of and interactions with [company]

How would you rate your level of knowledge about [company]?

	1 LOW	2 SOMEWHAT LOW	3 MEDIUM	4 SOMEWHAT HIGH	5 HIGH
General knowledge	<input type="radio"/>				

From the following list, which are the three main sources of information about [company] activities in [local community] for you? (Select up to three sources)

[Company]	<input type="radio"/>	Social media (Twitter, Facebook, etc)	<input type="radio"/>
State newspapers (eg enter)	<input type="radio"/>	Family or friends	<input type="radio"/>
Local newspaper (eg enter)	<input type="radio"/>	Mine employees	<input type="radio"/>
National newspaper (eg enter)	<input type="radio"/>	Your employer	<input type="radio"/>
Radio	<input type="radio"/>	Community groups	<input type="radio"/>
Television	<input type="radio"/>	Other	<input type="radio"/>
Internet	<input type="radio"/>		

These questions are about your contact with [company] personnel. How much contact have you had with people from [company]:

	1 LOW	2 SOMEWHAT LOW	3 MEDIUM	4 SOMEWHAT HIGH	5 HIGH
At community meetings or events?	<input type="radio"/>				
Informally in your local area?	<input type="radio"/>				
Over all social situations?	<input type="radio"/>				

How many people from [company] do you know?

None	<input type="radio"/>	6–10	<input type="radio"/>
1–2	<input type="radio"/>	11–20	<input type="radio"/>
3–5	<input type="radio"/>	Other	<input type="radio"/>

Have you contacted [company] regarding any issues via the complaints and grievances procedure?

Yes	<input type="radio"/>	No	<input type="radio"/>
-----	-----------------------	----	-----------------------

If yes, how satisfied were you that the issue was resolved in an adequate manner?

Very satisfied	<input type="radio"/>	Unsatisfied	<input type="radio"/>
Satisfied	<input type="radio"/>	Very unsatisfied	<input type="radio"/>
Neutral	<input type="radio"/>	Still being dealt with	<input type="radio"/>

# A TEMPLATE SURVEY INSTRUMENT

*continued*



## Responsiveness of [company]

Please rate the extent to which you agree with the following statements:

	1 STRONGLY DISAGREE	2 DISAGREE	3 NEITHER AGREE NOR DISAGREE	4 AGREE	5 STRONGLY AGREE
[Company] listens to and respects my opinions with regard to community issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
[Company] is prepared to change its practices in response to community sentiment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Benefit and risk distribution

Please rate your level of agreement with the following statements:

	1 STRONGLY DISAGREE	2 DISAGREE	3 NEITHER AGREE NOR DISAGREE	4 AGREE	5 STRONGLY AGREE
People like me receive a fair share of the benefits from mining	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People like me receive a fair share of the risks from mining	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My community receives a fair share of the benefits from mining	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My community receives a fair share of the risks from mining	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# A TEMPLATE SURVEY INSTRUMENT

continued



## 3.5

### Relational measures – extended version (use in addition to short version measures)

#### Your interactions with [company]

In general, when you meet people from [company], do you find the contact:

	1 VERY UNPLEASANT	2 UNPLEASANT	3 NEUTRAL	4 PLEASANT	5 VERY PLEASANT	NO CONTACT
Pleasant or unpleasant?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In general, when you meet people from [company], do you find the contact:

	1 VERY NEGATIVE	2 NEGATIVE	3 NEUTRAL	4 POSITIVE	5 VERY POSITIVE	NO CONTACT
Rather positive or negative?	<input type="radio"/>					

From the following list, what are the three main sources of contact you have with people from [company]?

Community events	<input type="radio"/>	Conducting business	<input type="radio"/>
Social situations	<input type="radio"/>	Social investment and donation program	<input type="radio"/>
Sporting events	<input type="radio"/>	Other	<input type="radio"/>

#### Involvement in decision making processes

These questions relate to the way you feel treated in decision-making processes.

People in my community have an opportunity to participate in decisions about community issues made by:

	1 STRONGLY DISAGREE	2 DISAGREE	3 NEITHER AGREE NOR DISAGREE	4 AGREE	5 STRONGLY AGREE
My local council	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
[Company]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The state government	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The federal government	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Overall, how satisfied are you with living in your community

Very dissatisfied	<input type="radio"/>	Satisfied	<input type="radio"/>
Not satisfied	<input type="radio"/>	Very satisfied	<input type="radio"/>
Neutral	<input type="radio"/>		

# A TEMPLATE SURVEY INSTRUMENT

continued



## 3.6

### Outcome measures (social licence and reputation) – short version

#### Trust in [company]

How much do you:	1 NOT AT ALL	2 SOMEWHAT	3 PARTLY	4 MOSTLY	5 VERY MUCH SO
Trust [company] to act responsibly?	<input type="radio"/>				
Have confidence in [company]?	<input type="radio"/>				
Feel goodwill towards [company]?	<input type="radio"/>				

#### Reputation of [company]

Please rate the extent to which you agree with the following statements:	1 STRONGLY DISAGREE	2 DISAGREE	3 NEITHER AGREE NOR DISAGREE	4 AGREE	5 STRONGLY AGREE
[Company] is a company I have a good feeling about	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
[Company] is a company that I trust	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
[Company] is a company that I admire and respect	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
[Company] has a good overall reputation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

#### Acceptance of [company]

Thinking about [company] overall, how much do you:	1 NOT AT ALL	2 SOMEWHAT	3 PARTLY	4 MOSTLY	5 VERY MUCH SO
Reject [company]?	<input type="radio"/>				
Tolerate [company]?	<input type="radio"/>				
Accept [company]?	<input type="radio"/>				
Approve of [company]?	<input type="radio"/>				
Embrace [company]?	<input type="radio"/>				

Thinking about [company] overall, please rate the extent to which:	1 NOT AT ALL	2 SOMEWHAT	3 PARTLY	4 MOSTLY	5 VERY MUCH SO
You believe that [company] has legitimacy within the community	<input type="radio"/>				
You believe that [company] has credibility within the community	<input type="radio"/>				

# A TEMPLATE SURVEY INSTRUMENT

continued



## Acceptance of [company] and position of industry

Thinking about the mining industry overall, how much do you:	1 NOT AT ALL	2 SOMEWHAT	3 PARTLY	4 MOSTLY	5 VERY MUCH SO
Reject mining?	<input type="radio"/>				
Tolerate mining?	<input type="radio"/>				
Accept mining?	<input type="radio"/>				
Approve of mining?	<input type="radio"/>				
Embrace mining?	<input type="radio"/>				

Thinking about the mining industry overall, please rate the extent to which:	1 NOT AT ALL	2 SOMEWHAT	3 PARTLY	4 MOSTLY	5 VERY MUCH SO
You believe that the mining industry has legitimacy within [country] society	<input type="radio"/>				
You believe that the mining industry has credibility within the [country] society	<input type="radio"/>				

Please rate your level of agreement with the following statements:	1 STRONGLY DISAGREE	2 DISAGREE	3 NEITHER AGREE NOR DISAGREE	4 AGREE	5 STRONGLY AGREE
The community I live in is too dependent on mining	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
[Country] is too dependent on mining	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Considering the benefits and costs associated with mining, it is worthwhile to pursue mining in [local community]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mining contributes significantly to the standard of living in [local community]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mining contributes significantly to the standard of living in [country]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you have any other comments you would like to make?

# A TEMPLATE SURVEY INSTRUMENT

*continued*



## 3.7

### Outcome measures (social licence and reputation) – extended version (use in addition to Standard measures)

#### Trust

Can you please rate the level of trust you have in each of the following institutions or organizations:

	1 VERY LOW TRUST	2 LOW TRUST	3 NEUTRAL	4 HIGH TRUST	5 VERY HIGH TRUST
Your local doctor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
[Company] community relations personnel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The state government	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The federal government	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local traders and small business people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
[Company]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Union	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# 4

## USING DATA FOR IMPACT

This section describes the type of data that is generated by a reputation research process and how this data should and can be used.

# USING DATA FOR IMPACT



This section describes the type of data that is produced by processes described in this toolkit, with an emphasis on the quantitative data developed; different levels of specificity and utility associated with the different levels described in Section 1; and how this data should and can be used. Data collected through questionnaire surveys can be analyzed at various levels to provide insights on the issues the survey aims to address.

## 4.1

### Descriptive statistics – Standard and Intermediate data analysis

Descriptive statistics describe the basic features of the data and provide a powerful summary that may form the basis of a more in-depth statistical analysis. They can provide simple summaries about the participants of the survey and the measures used. The most commonly used descriptive statistic is the mean, or average score, along with standard deviation for each measure used (ie the amount of variation or dispersion from the mean that is present within each set of responses to each measure). The mean is a particularly informative measure to give an indication on how the impacts or benefits of an operation are perceived.

When using descriptive statistics, it is informative to summarize survey data using a combination of tables, graphs and charts. This will help to describe and show data in a meaningful way, and allow simpler interpretation of the data. For example, if 200 community members are surveyed about their experienced or perceived impacts of a particular mine operation, we can calculate the mean and standard deviation of each impact area for the 200 people surveyed. This could provide valuable information about how positive or negative the impact is perceived.

Taking participants' responses to the item "Housing is more expensive in my area as a consequence of mining activity" (1 = strongly disagree, 4 = either agree or disagree, 7 = strongly agree) as an example, a mean below 4 indicates that the mine operation may not be perceived as having much impact on housing cost. Meanwhile, a mean above 5 suggests that housing cost has been perceived as having increased and it is caused by an operation, in the minds of those surveyed.

Descriptive statistics can be used for a longitudinal tracking of impacts by examining the changes in means over time. They can also provide a powerful summary that may enable comparisons across different stakeholder groups by using tools such as cross tabulation tables. In addition, simple relationships between measures included in the survey instrument may be calculated using correlation. Calculating correlations between variables within a data set are a useful way to begin exploring important and statistically significant relationships that may be followed up through more complex inferential statistics; they provide an assessment of relationships' strength but not direction.

# USING DATA FOR IMPACT

continued



## 4.2

### Inferential statistics – Advanced data analysis

Inferential statistics are used to test hypotheses that companies or researchers may have regarding the relationship between measures within a data set. For example, do stakeholder groups differ in their perceptions of the impact or benefit measures related to an operation? Is the difference between stakeholders more than would be expected by chance? Can one factor predict another – for example, can impacts of mining on housing costs and availability predict the level of mining acceptance in the stakeholders sampled?

The results of inferential statistical analyses can also be used to answer the question “what should be done next?” The following section describes three of the most useful inferential analyses for stakeholder reputation research.

#### T-test or ANOVA analysis

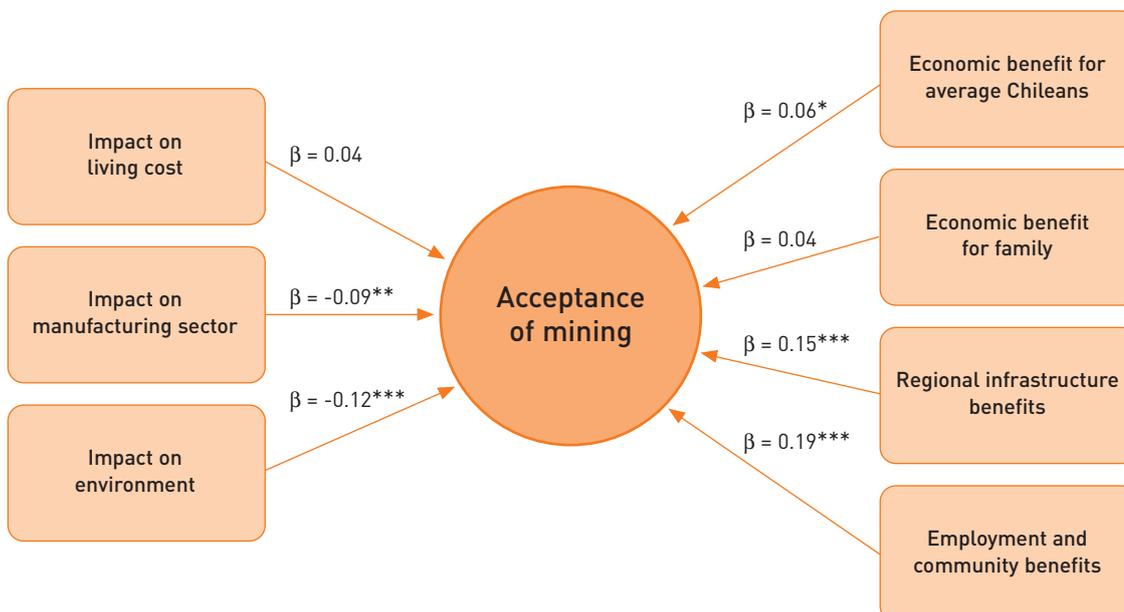
This is the simplest inferential test that can be used to compare the average performance of two or more groups on a single measure to evaluate differences for statistical significance. For example, it may be informative to know whether different stakeholder groups, on average, have the same experience (positive or negative) in their contact with staff from a company.

#### Regression analysis

This is used when examining whether an outcome measure can be predicted by one or more explanatory measures. For example, when investigating how various negative impacts and positive benefits affect stakeholders’ acceptance level of a particular mine operation, the results of regression analysis will not only indicate whether each impact or benefit has an effect on levels of acceptance, but also provide information on how each impact or benefit influences acceptance relative to the other impacts and benefits included in the analysis.

Figure 2 provides an example of the output from a regression analysis. This example is taken from an analysis of data from a national survey of citizens conducted in Chile (Moffat et al 2014a). In this diagram, the numerical values, beta weights ( $\beta$ ), represent the relative strength of each relationship. Positive  $\beta$ -values indicate a positive relationship; negative  $\beta$ -values indicate a negative relationship. The number of “\*” associated with each  $\beta$ -value represents the level of statistical significance associated with the relationship where a greater number of “\*” reflects a greater level of statistical significance. In Figure 2, environmental impacts are the strongest negative predictor of acceptance of mining among this stakeholder group, while local employment and community benefits are the strongest positive predictors of acceptance of mining.

**Figure 2:** Results from a regression analysis examining the relative strength of positive and negative impacts of mining on acceptance of mining among Chilean citizens



# USING DATA FOR IMPACT

continued



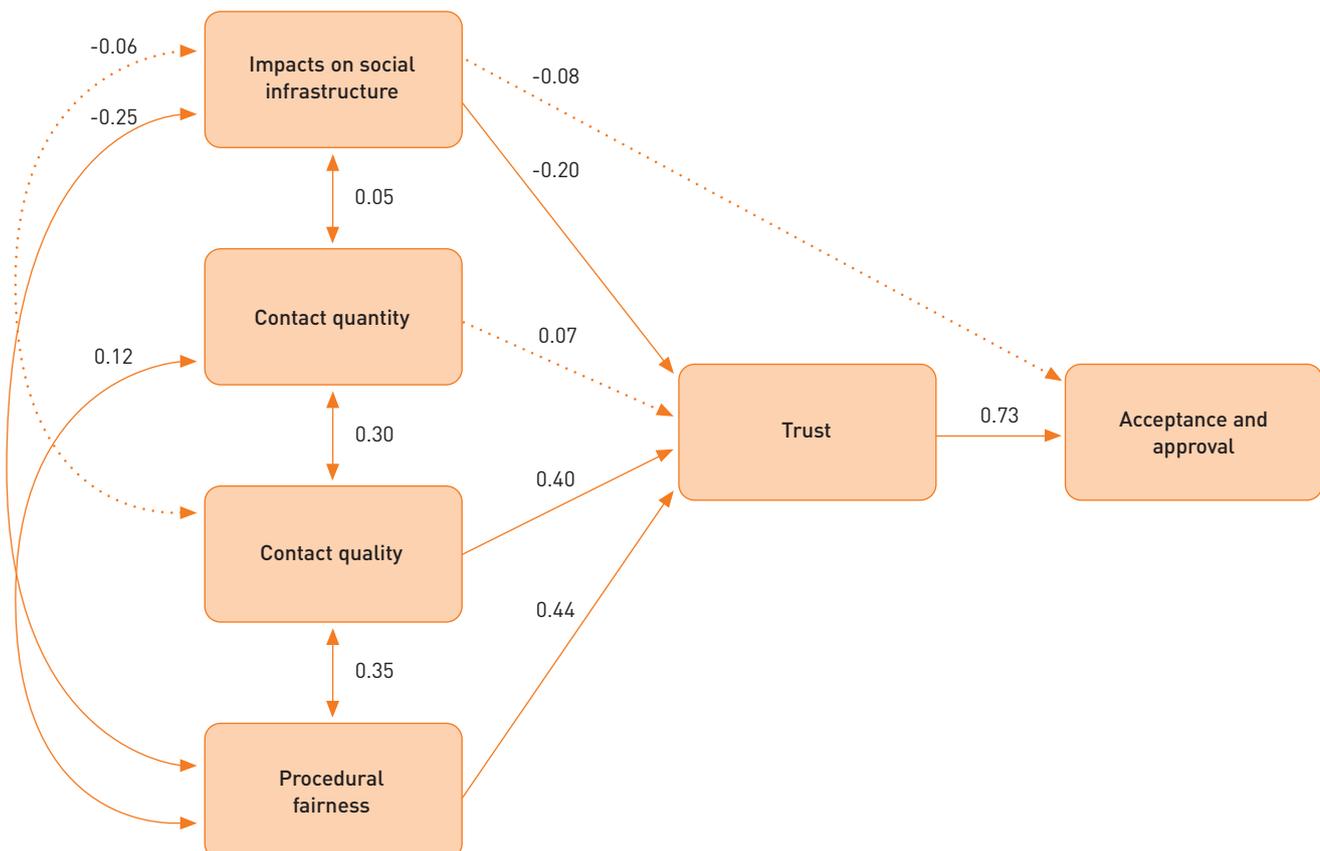
## Path analysis

This is a straightforward extension of multiple regression that focuses on causality. Often called “causal modelling”, it allows theoretical propositions regarding the causal relationship between a set of variables to be tested. Its aim is to provide estimates of the magnitude and significance of hypothesized causal connections between sets of variables. This is best explained by considering a path diagram that specifies all the causal linkages between variables. For example, through using path analysis, answers can be sought on how various social impacts affect trust in a mining company, which in turn, affects the extent to which this mining operation is accepted.

In the path model in Figure 3, the beta weights ( $\beta$ ) again represent the strength of each relationship relative to all the others; higher values represent stronger relationships. Positive  $\beta$ -values indicate a positive relationship; negative  $\beta$ -values indicate a negative relationship. Full lines represent statistically significant relationships while dotted lines represent relationships that are non-significant. In this example, taken from a study of stakeholder perceptions at an extractive operation in Australia (Moffat and Zhang 2014), procedural fairness followed by the quality of contact between operational employees and community members were the strongest predictors of trust in the company, with perceptions of

negative impacts on local social infrastructure a less powerful predictor of trust. Trust in the company was a strong positive predictor of acceptance and approval of the operation. The amount of contact between community and company personnel did not predict trust. The order of the variables in this path model is determined by how well this configuration of variables fits to the data – in this case, trust was found to be the critical vehicle through which the predictor variables on the left affected acceptance and approval on the right. Put another way, the model shows that trust is the vehicle by which stakeholder experiences on the left affect their acceptance of the operation on the right.

**Figure 3:** Output from a path analysis examining the relative strength of relational and impact variables on trust in an extractives company, and acceptance and approval of the operation among local project stakeholders



# USING DATA FOR IMPACT

continued



## 4.3

### Interpretation for internal decision making

Stakeholder research is useful only if the insights drawn from the work are applied meaningfully. There are a number of ways that companies can take advantage of these insights in their businesses. These include:

- shaping communication strategies to focus on the processes that these analyses identify as being important in building trust with stakeholders. Taking the results highlighted in the path analysis above (see Figure 3), a communication strategy that emphasizes the various processes this company has in place to facilitate a sense of procedural fairness in its engagement with local operational stakeholders (eg community consultation processes, shared decision-making bodies, responses to community concerns) will engender trust within this group.
- evaluating business strategies aimed at addressing stakeholder concerns. Through creating benchmark data sets, a company can then evaluate change across time in the perceptions of stakeholders as a result of interventions put in place. Through the aggregation of data collected between companies using consistent measures, the mining and metals sector will also be able to benchmark itself against other industries and sectors. As described in the lexicon report, other extractive industries offer relevant comparisons, although other heavy manufacturing industries (eg chemicals, plastics, forest products) or industries that face similarly complex and demanding regulatory challenges (eg pharmaceuticals) and public concerns regarding environmental impacts (eg agribusiness/agriculture) may also be relevant.
- aligning key performance indicators (KPIs) of stakeholder engagement and external relations functions within the business with those areas that have been demonstrated to improve the reputation and acceptance of a company, and to address those areas where a deficit has been demonstrated. Collecting nuanced stakeholder perception data also allows for the inclusion of engagement and communication outcomes related to reputation as explicit and measurable KPIs for company personnel. Deeper, Advanced analysis of data also enables strategies to be developed that support the achievement of individual and group KPIs across time.
- understanding communities for more effective engagement. The use of stakeholder mapping and social network analysis allows for the number and strength of relationships between a network of stakeholder groups and the company to be mapped. Understanding the company's position in this stakeholder network allows the company to tailor engagement strategies based on what that network needs and will accept with respect to engagement type and form. This kind of analysis also allows for a company to understand who in that network is most important to engage through understanding which individuals and groups are most connected to other important stakeholders. In addition, tracking data longitudinally, or across time, allows for the identification of issues within stakeholder groups before they become conflicts. Particularly relevant for local operational communities, the ability to engage on the issues that matter in a timely manner, or to predict when an issue will likely become a major concern for these communities, represents enormous opportunity to demonstrate the company is listening and responding appropriately to community concerns.

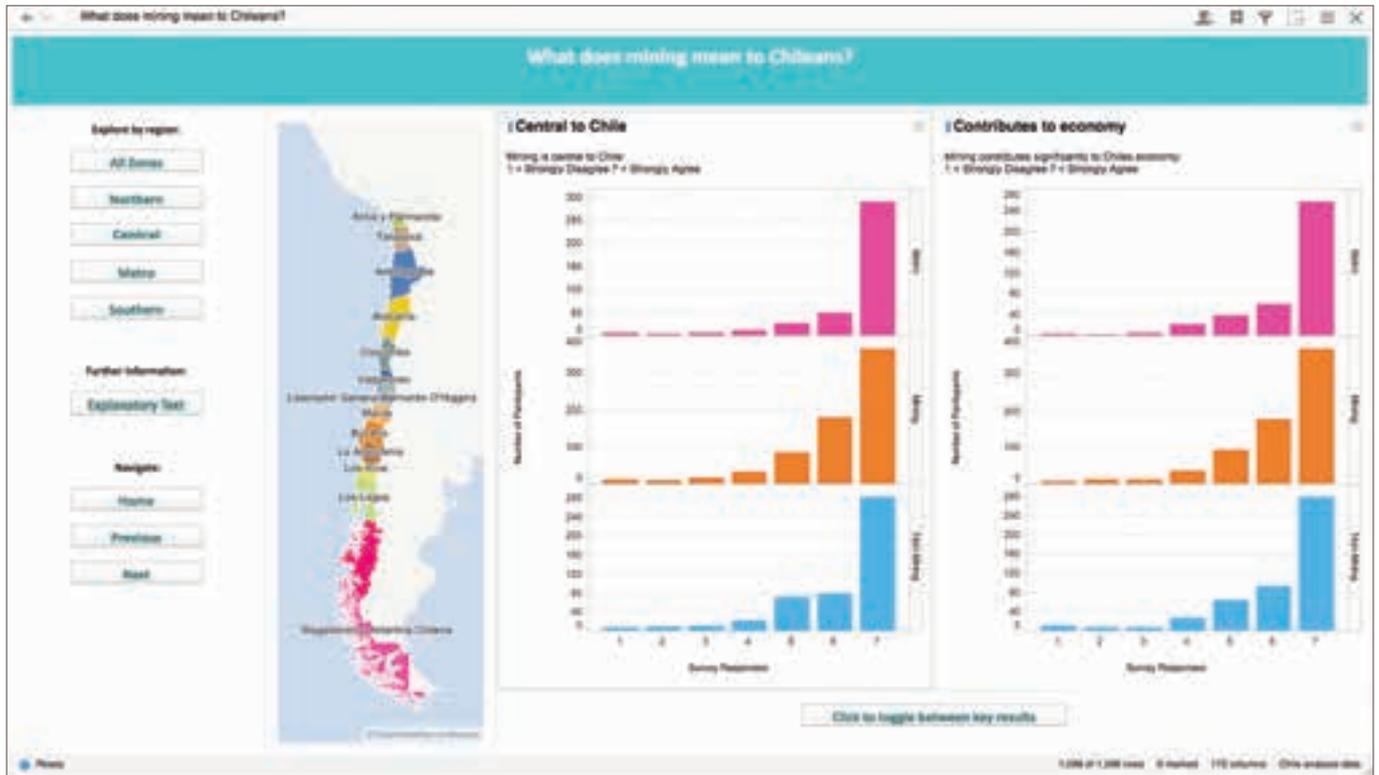
**“THE ABILITY TO ENGAGE ON THE ISSUES THAT MATTER IN A TIMELY MANNER, OR TO PREDICT WHEN AN ISSUE WILL LIKELY BECOME A MAJOR CONCERN FOR THESE COMMUNITIES, REPRESENTS ENORMOUS OPPORTUNITY TO DEMONSTRATE THE COMPANY IS LISTENING AND RESPONDING APPROPRIATELY TO COMMUNITY CONCERNS”**

# USING DATA FOR IMPACT

continued



Figure 4: Example dashboard for presenting stakeholder perception data in a dynamic, usable format



A key challenge with any research activity is to translate information collected into usable insights within a company. One way this may be achieved is through the development of dashboards that collate data from multiple measures into a single desktop view for use in tactical and strategic decision making. The example provided in Figure 4 presents data collected in a national survey of citizen attitudes to mining in Chile. In this dashboard, the attitudes of Chileans in different parts of the country may be selectively generated through clicking on the map of Chile.

Each colour represents a different stakeholder group, in this case those Chileans living in mining regions, non-mining regions and metropolitan regions (Santiago). In another example of what is possible in this area, Australia's CSIRO has developed dashboards that reflect data collected within local mining communities, aggregated data from multiple sites for the same company, and an overall summary dashboard for use by senior executives and the CEO of a major mining company to assess social performance across the enterprise. As with the Ulula case study described earlier in Section 2, these business intelligence tools offer a capability to generate reports on particular issues from within the business rather than requesting additional analysis from a research partner. They also allow for data to be fed directly and in "real time" into the databases that sit "behind" these dashboards – bringing stakeholder perception data directly into the centre of management processes in the same way that operational data is managed and treated.

The utility of the information gathered through a stakeholder survey process is largely dependent on the quality of the thinking that informed the research questions and design. This emphasizes the importance of considering the business needs, vulnerabilities and strengths in establishing and developing a research program of this nature.

## USING DATA FOR IMPACT

*continued*



### 4.4

#### Data as a “boundary object”

Using data with company and industry stakeholders includes interpreting the data or key findings for these stakeholders in a way that recognizes the specific context of their needs. This means demonstrating how the data reflects the perspectives of these stakeholders, including on key issues or areas of concern. It is often highly valuable for all stakeholders to be able to review such findings together in order to develop an understanding of how perceptions on key issues are being formed or held in the wider network of stakeholders and society.

Analyzing the data together with different stakeholder groups in a spirit of enquiry, reflection and even challenge is a powerful way of demonstrating that the company is seeking to develop relationships through transparent and systematic methods. Taking local mining communities, for example, an engagement process that uses the data collected may demonstrate that the company is not just seeking to draw data out of the community for its own purposes but for more mutually beneficial goals. These may include as a way of understanding community concerns more clearly, seeking to develop collaborative strategies to address these concerns, building on the positive drivers of reputation and acceptance identified in the data and to learn about the perspectives and priorities of one another together. In this way, the data from a survey becomes the boundary object around which company and community can meet to discuss what has been revealed, what is surprising, what might require action or what is working well in the relationship. Perhaps most importantly, the nature of the relationship between company and community is captured in data that may be tracked across time, allowing for the company to see, document and report the effects of its efforts.

**“ANALYZING THE DATA TOGETHER WITH DIFFERENT STAKEHOLDER GROUPS IN A SPIRIT OF ENQUIRY, REFLECTION AND EVEN CHALLENGE IS A POWERFUL WAY OF DEMONSTRATING THAT THE COMPANY IS SEEKING TO DEVELOP RELATIONSHIPS THROUGH TRANSPARENT AND SYSTEMATIC METHODS”**

Working collaboratively and inclusively with the community to discuss the findings of the research provides a respectful platform through which conversations about the nature of the relationship and stakeholder priorities can be broached. It can also be valuable to make at least part of this data publicly available through data visualization platforms that present key themes in an accessible format in order to allow people to examine and “play” with the data to draw some of their own conclusions. While such data needs to be appropriately de-identified to protect the identity of survey participants, this open sharing increases transparency of company–community relations and can encourage communities to feel more engaged with and ownership of the data. This also creates potential to explore how companies can demonstrate they have incorporated community perspectives into the design of their own operations. This ultimately demonstrates a relationship where both parties can listen to one another and adapt or change behaviours to create a stronger partnership.

Companies, and the mining and metals industry, have many stakeholders apart from local communities. The increasing importance of social conflict in the financial viability of new and existing operations speaks to the opportunity to use such exercises to engage proactively with investors and the market to demonstrate how this risk is being managed and to potentially differentiate from other companies that are either not performing as well in this area, or are unable to demonstrate empirically that this is so.

Governments are also a critical stakeholder in mining jurisdictions, and bringing systematic, benchmarked data around stakeholder perceptions into a private or public dialogue regarding the benefits of mining, for example, and how this leads to the reputational position of the company in its operational context, can be a powerful tool for shaping institutional responses to and regulation of the industry.

As will be discussed in the following section (Section 5), this power is increased through the aggregation of data within and between companies. In the difficult and complex negotiation of new or continued access to a resource, the availability of systematic data sets regarding stakeholder perceptions may be used as an important tool for demonstrating the value that stakeholders in that jurisdiction or other jurisdictions place in the presence of the company of focus. ICMM’s Mining: Partnerships for Development program of work seeks to demonstrate the value that mining brings at a macro level to mining jurisdictions – reputation and stakeholder perception data may similarly demonstrate the power of stakeholders to support particular companies or the industry as a whole in a given jurisdiction.

## USING DATA FOR IMPACT

*continued*



Finally, reputation data may also help to counteract the data that is placed into the public domain by interest groups that seek to exclude or stop mining altogether. Through careful selection of research partner and establishment of robust governance arrangements to run more comprehensive programs of reputation research, it is possible to bring some balance to these public discussions through accessing the views of ordinary citizens, for example, regarding mining or a particular company to demonstrate that these interest groups represent segments within a population rather than the views of all stakeholders in a consistent way.

In these ways, the data provides an evidence base from which to identify where and how to start the conversations between companies and stakeholders, but it can also provide a platform for exploring how to move forward in partnership with each other. The key benefits of using data with stakeholders in this way are:

- to respectfully engage and strengthen the relationship between company and stakeholders – the benefit of this engagement needs to flow both ways because the goal is to improve understanding from all perspectives
- to identify key themes emerging from surveys with the community and other stakeholders and use these as a prompt to explore company–stakeholder relationships – this can include using forums such as public dialogues and by making the data publicly available to promote meaningful engagement and transparency
- to inform the activities of companies and industry based on stakeholder perspectives and priorities, and to communicate to these groups how they have helped to shape or improve those operations, and the industry more broadly.

“REPUTATION DATA MAY ALSO HELP TO COUNTERACT THE DATA THAT IS PLACED INTO THE PUBLIC DOMAIN BY INTEREST GROUPS THAT SEEK TO EXCLUDE OR STOP MINING ALTOGETHER”

# 5

## ORGANIZING, STORING, AGGREGATING AND COMPARING DATA

This section outlines principles of how best to manage the data collected and how the data can contribute to an industry-wide understanding of stakeholder relationships.

# ORGANIZING, STORING, AGGREGATING AND COMPARING DATA



For the industry to understand its stakeholder relationships and reputation consistently and systematically, it is valuable to consider protocols for data storage within companies and enabling the sharing and comparison of (some) data between companies.

## 5.1

### Within companies

When undertaking stakeholder research, it is imperative that protocols relating to the responsible and ethical organization, storage, aggregation and comparison of data sets are adhered to *within companies*. There are two key reasons for this.

First, research that is undertaken with the involvement of humans as research subjects or participants requires that companies accept responsibility for the welfare of those participants within the scope of the research activities being conducted. In many cases, survey methods collect data about participants that is classified as identifiable data. Identifiable data is information about individuals that can be used on its own, or in conjunction with other data, to identify or locate a single person or an individual in context.

While the goal of stakeholder research is aimed at informing and improving the sustainability and productivity of people, communities, regions and industries, there are a number of key issues for companies engaging in this research of which they need to be aware, including:

- that participants in the research are treated respectfully (ie only engaged through a process of informed consent)
- that participants in the research are not penalized or otherwise disadvantaged by their choice to be involved in the research (or not be involved in the research)
- that the data participants provide, including any identifying information, is stored securely to protect the privacy and confidentiality of participants.

It is worth noting that some research is not recognized as being valid by the broader research community if it cannot be demonstrated that appropriate legal and ethical obligations have been met. This reduces the opportunity to make use of the data to benchmark company performance in a way that is recognized as being rigorous or for using the data to speak to broader industry issues as it would not be considered valid alongside other similar data sets. This limits the application of data sets or, in some cases, renders them invalid (this is particularly relevant if seeking to publish results of research in peer reviewed journals).

Second, privacy issues and the movement of personal data in particular have legal implications that companies must be aware of. This is particularly the case for companies that may be collecting, using or storing data across multiple sites of operation, or seeking to move data across national or international boundaries. In many cases, companies will also be contracting specialist providers (eg market research or social research firms) to assist with recruiting participants and data collection. In such cases, appropriate management of the storage and movement of such data is an imperative, even in these transactions.

# ORGANIZING, STORING, AGGREGATING AND COMPARING DATA

*continued*



Key issues that need to be managed by companies to protect participants' confidentiality and to conform with legal requirements around the storage and movement of personal data and other information include:

- understanding legal restrictions on and implications of moving identifiable data across national borders – this includes knowledge of the requirements of different jurisdictions
- implementing protocols for the storage of identifiable data that can assure participant confidentiality.

There are also a number of practical steps that companies should take to ensure that the data collected retains its utility in the future. For example, it is critical that data is labelled appropriately to enable future analysis by those who were not originally involved in the research process. This includes using a consistent approach to labelling measures and items, and recording the scales that were used to capture stakeholder responses (coding instructions). An example format for labelling data is reflected in Table 5.

## 5.2

### Between companies

ICMM has a longer-term commitment to strengthening the mining and metals industry's relationships with communities. This includes a mandate to work collaboratively with ICMM members and others to strengthen social and environmental performance of the mining and metals industry.

If companies adopt the systematic approach to stakeholder research described in this toolkit, particularly with the inclusion of common metrics around reputation and its drivers, there is potential to draw de-identified data sets together to create a better understanding of the performance and reputation of the industry more broadly. Thus, in addition to the value created for companies by applying a systematic approach to understanding reputation and strengthening their relationships with communities, there is also potential to draw out select elements of this company-level reporting to build a picture of reputation at the industry scale. The inclusion of common metrics in stakeholder research also supports the ability to better aggregate and compare responses with other key inputs, such as national-scale data on citizen perceptions and ICMM country assessments. Analysis at this level also supports the possibility of informing national-level multi-stakeholder dialogues with host governments, development organizations, NGOs and others.

However, there are a number of key issues that need to be addressed that relate to the responsible and ethical organization, storage, aggregation and comparison of data sets *between companies*.

First, to contribute to this kind of high-level reporting on industry reputation and performance, companies would be required to enter into an agreement with a trusted third party, who would accept responsibility for the management and use of the global data set. The third party manager of this data would additionally be required to adhere to protocols ensuring full respect for participant rights and confidentiality, and the protection of company intellectual property (IP) and other commercially sensitive data that may be contained in survey results.

Second, the responsibility of the trusted third party would be to work closely with companies to identify how their stakeholder research data, and in particular their reputation data, could be:

- cleaned and prepared for analysis (ie combining data sets from different companies)
- de-identified to protect the privacy and confidentiality of participants
- stripped of identifying commercial-in-confidence company information in order to protect IP and commercial advantage (ie only some items need to be shared, some data must be retained internally for company use only)
- aggregated to generate measurement categories around which to report issues such as reputation at the national and, potentially, the international scale.

**Table 5: An example data labelling format**

MEASURE	FULL MEASURE NAME AND ITEM	CODING INSTRUCTIONS
ID	Identification number	Participant ID number
Gender	Gender	1 = male, 2 = female
Impact_housing	Impact_housing – "Housing is more expensive in my area as a consequence of mining activity"	1 = strongly disagree, 7 = strongly agree
Acceptance	Acceptance – "You accept XX company's operation in your region"	1 = not at all, 5 = very much

# ORGANIZING, STORING, AGGREGATING AND COMPARING DATA

*continued*



The purpose of creating a global data set of industry performance and reputation is to draw on the real performance and reputational data of companies to support relationships between industry and its stakeholders that lead to better outcomes for all parties and a more efficient industry. It will also lead to more transparent assessment and management of social risk to investment.

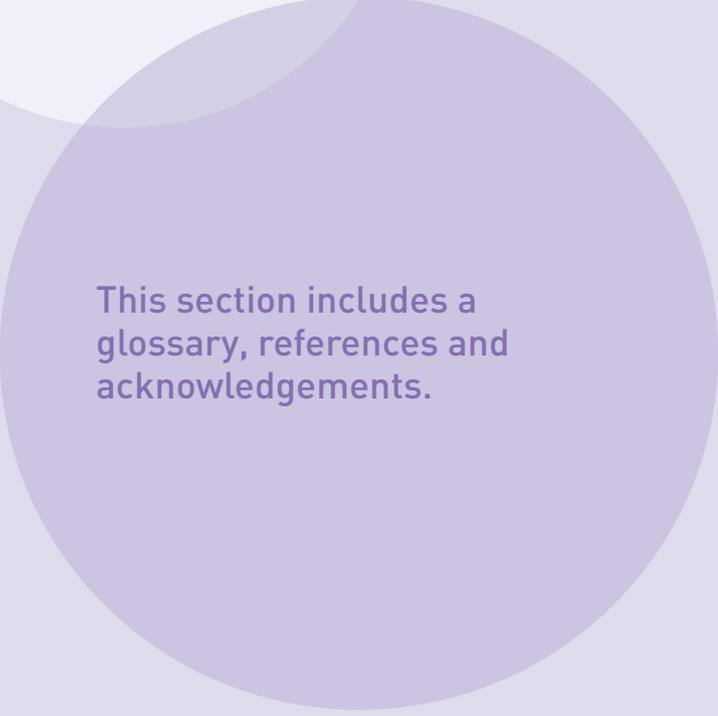
“IF COMPANIES ADOPT THE SYSTEMATIC APPROACH TO STAKEHOLDER RESEARCH DESCRIBED IN THIS TOOLKIT, PARTICULARLY WITH THE INCLUSION OF COMMON METRICS AROUND REPUTATION AND ITS DRIVERS, THERE IS POTENTIAL TO DRAW DATA SETS TOGETHER TO CREATE A BETTER UNDERSTANDING OF THE PERFORMANCE AND REPUTATION OF THE INDUSTRY MORE BROADLY”



# 6



## FURTHER INFORMATION



This section includes a  
glossary, references and  
acknowledgements.

# FURTHER INFORMATION



## Glossary

### Aggregation

Responses summarized at the group level (eg whole community) as opposed to individual level (Mr Jones). Aggregation has the benefit of protecting peoples' privacy and providing a summary of the perspectives of a large population.

### ANOVA

ANalysis Of VAriance, is a statistical technique used for comparing the responses of groups of people. The test is similar to a t-test.

### Contact quality

The nature of interactions between company personnel and stakeholders.

### Contact quantity

The amount of contact between company personnel and stakeholders.

### Correlation

A number between -1 and +1 that describes the association between peoples' responses on two measures. If the correlation is positive, responses increase and decrease together. If the correlation is negative, responses on one measure increase as responses decrease on the other measure. If the correlation is zero, the responses are not linked.

### Demographics

Characteristics of people that describe a population.

### Descriptive statistics

Descriptive statistics are numbers used to describe the basic trends in peoples' responses (eg mean and standard deviation).

### Desktop review

A review of existing documentation on a topic. Referred to as desktop review as the review primarily involves reviews of existing published and unpublished materials as opposed to fieldwork.

### Distributional fairness

The extent to which stakeholders perceive that benefits (eg economic benefits from mining) are being shared fairly.

### Engagement

Interactions between people, often a company and its stakeholders. Can involve but not restricted to consultation, communication, education and public participation.

### Focus group

A discussion in a small group that is guided by a facilitator.

### Inferential statistics

Statistics that support making conclusions about peoples' responses and reasons for their responses.

### Interview

A discussion guided by an interviewer and an interviewee who offers responses.

### Issues and impacts (perceptions of)

The experiences stakeholders have of a company, which can encompass a broad range of topics in varying levels of detail.

### Longitudinal

Research that involves measuring the same topics over periods of time, often within the same group of people or population.

### Mean

The average of responses to a specific measure.

### Measure

The instrument (eg question) used to systematically observe the responses of stakeholders.

### Media monitoring

Services that summarize media publications, often by topic or company reference.

### Methodology

The overall approach used in a research study, including the theories informing the research, the methods of data collection and analysis.

### Mixed method

The use of both qualitative and quantitative data collection and analyses.

### Path analysis

A statistical technique used to test for causal relationships between measures, for example whether increases in trust lead to a more positive reputation. Path analysis is an extension of regression analysis and testing for correlations.

### Perceptions

People's understandings as reported by them.

### Procedural fairness

The extent to which stakeholders perceive that they have had a reasonable voice in decision making and that they feel heard and respected.

### Qualitative

Unstructured and in-depth details used to describe people or topics.

### Quantitative

Structured and systematic numeric values used to describe people or topics.

### Regression analysis

A statistical technique used to test whether an outcome (eg reputation) is linked with one or more measures (eg trust). Regression analysis is an extension of testing for correlations.

### Relational measures

Measures of how stakeholders perceive a company interacts with them. These measures are of relationship features (eg contact quality and quantity, procedural fairness and distributional fairness).

### Reputation

The opinions and beliefs that stakeholders hold of a company.

### Sample

The subset of a population that responses are collected from.

### Social license

The level of acceptance a population has for an operation, company or industry.

### Stakeholder

A person or group that is influenced by or can influence an operation.

### Standard deviation

The amount of variation in average responses to a question. A high standard deviation indicates responses were variable and differed; a low standard deviation indicates responses were constrained or similar.

### Survey

A method for collecting information about a population, such as a community, and often consists of mainly quantitative measures.

### Survey instrument

Also known as a questionnaire, this is all the measures, or questions, used when conducting the survey.

### SWOT

A structured method of evaluating the strengths and weaknesses within an organization and the opportunities and threats in the organization's external environment.

### Trust

A characteristic of a relationship that includes at least one party perceiving characteristics such as honesty and having confidence in another party.

### T-test

Similar to ANOVA, this is a statistical technique used for comparing the responses of groups.

# FURTHER INFORMATION

continued



## References

- Bowler, I, Bryant, CR and Cocklin C (2002). *The Sustainability of Rural Systems: Geographical Interpretations*. The Netherlands, Kluwer Academic Publishers.  
[www.springer.com/earth+sciences+and+geography/geography/book/978-1-4020-0513-8](http://www.springer.com/earth+sciences+and+geography/geography/book/978-1-4020-0513-8)
- Brereton, D and Pattenden, C (2007). *Measuring what matters: monitoring the contribution of a new mining project to community sustainability*. Third International Conference on Sustainable Development Indicators in the Minerals Industry, June 2007, Milos Island, Greece.  
[www.csrq.uq.edu.au/publications/measuring-what-matters-monitoring-the-contribution-of-a-new-mining-project-to-community-sustainability](http://www.csrq.uq.edu.au/publications/measuring-what-matters-monitoring-the-contribution-of-a-new-mining-project-to-community-sustainability)
- Brereton, D, Pattenden, C and Parmenter, J (2007). *Monitoring the contribution of Ravensthorpe Nickel-Nickel West to the regional community. Part 2: monitoring framework*. Centre for Social Responsibility in Mining, the University of Queensland.  
[www.csrq.uq.edu.au/docs/RN%20Monitoring%20FINAL%20Part2.pdf](http://www.csrq.uq.edu.au/docs/RN%20Monitoring%20FINAL%20Part2.pdf)
- Center for Sustainability Studies of the Getulio Vargas Foundation, Alcoa and Brazilian Biodiversity Fund (2008). *Sustainable Juruti: a proposed model for local development*.  
[www.socialimpactassessment.com/documents/nps1866.tmp.pdf](http://www.socialimpactassessment.com/documents/nps1866.tmp.pdf)
- Center for Sustainability Studies of the Getulio Vargas Foundation (2009). *Indicators of Juruti: where the development of the municipality is headed*.  
[http://issuu.com/indicadoresdejuruti/docs/indicators\\_of\\_juruti](http://issuu.com/indicadoresdejuruti/docs/indicators_of_juruti)
- Clarkson, M B E (1995). A Stakeholder framework for analyzing and evaluating corporate social performance. *The Academy of Management Review*, 20(1), 92–117.  
<http://dx.doi.org/10.2307/258888>
- Crane, A and Ruebottom, T (2011). Stakeholder theory and social identity: Rethinking stakeholder identification. *Journal of Business Ethics*, 102, 77–87.  
<http://dx.doi.org/10.1007/s10551-011-1191-4>
- The Foundation for Development Cooperation (FDC) and PricewaterhouseCoopers (PwC) (2009). *Assessing the development impact of resource sector companies on their host countries*. Discussion paper.  
<http://fdc.org.au/wp-content/uploads/2015/03/Discussion-paper-151009-FINAL.pdf>
- Franks, D M, Davis, R, Bebbington, A J, Ali, S H, Kemp, D and Scurrah, M (2014). Conflict translates environmental and social risk into business costs. *Proceedings of the National Academy of Sciences*, 111(21), 7576–81.  
<http://dx.doi.org/10.1073/pnas.1405135111>
- Freeman, R E (1984). *Strategic Management: A Stakeholder Approach*. Boston: Pitman.  
[www.cambridge.org/au/academic/subjects/management/business-ethics/strategic-management-stakeholder-approach](http://www.cambridge.org/au/academic/subjects/management/business-ethics/strategic-management-stakeholder-approach)
- GlobeScan (2013). *Global reputation research landscape of the mining and metals industry: a review of existing research, presentation*. International Council on Mining and Metals.
- ICMM (2011). *Indigenous Peoples and Mining Good Practice Guide*. Available at [www.icmm.com](http://www.icmm.com)
- ICMM (2012). *Community Development Toolkit*. Available at [www.icmm.com](http://www.icmm.com)
- ICMM (2013). *Approaches to understanding development outcomes from mining*. Available at [www.icmm.com](http://www.icmm.com)
- Kemp, D, Owen, J, Cervantes, M, Arbelaez-Ruiz, D and Benavides Rueda, J (2013). *Listening to the city of Cajamarca*. Centre for Social Responsibility in Mining, the University of Queensland.  
[www.csrq.uq.edu.au/publications/listening-to-the-city-of-cajamarca-a-study-commissioned-by-minera-yanacocha-final-report](http://www.csrq.uq.edu.au/publications/listening-to-the-city-of-cajamarca-a-study-commissioned-by-minera-yanacocha-final-report)
- Moffat, K and Zhang, A (2014). The paths to social licence to operate: an integrative model explaining community acceptance of mining. *Resources Policy*, 39, 61–70.  
<http://dx.doi.org/10.1016/j.resourpol.2013.11.003>
- Moffat, K, Boughen, N, Zhang, A, Lacey, J, Fleming, D and Uribe, K (2014a). *Chilean attitudes toward mining: citizen survey – 2014 results*. CSIRO, Australia. EP 147205.  
[www.csiro.au/en/Research/Mining-manufacturing/CSIRO-Chile/Chilean-attitudes-to-mining](http://www.csiro.au/en/Research/Mining-manufacturing/CSIRO-Chile/Chilean-attitudes-to-mining)
- Moffat, K, Zhang, A and Boughen, N (2014b). *Australian attitudes toward mining: citizen survey – 2014 results*. CSIRO, Australia. EP146276.  
[www.csiro.au/en/Research/MRF/Areas/Community-and-environment/Resources-in-the-community/Attitudes-to-mining-survey](http://www.csiro.au/en/Research/MRF/Areas/Community-and-environment/Resources-in-the-community/Attitudes-to-mining-survey)
- Ponzi, L J, Fombrun, C J and Gardberg, N A (2011). RepTrak™ Pulse: conceptualizing and validating a short-form measure of corporate reputation. *Corporate Reputation Review*, 14(1), 15–35.  
<http://dx.doi.org.ezp01.library.qut.edu.au/10.1057/crr.2011.5>
- Putnam, R D (1993). The prosperous community: social capital and public life, *The American Prospect*, 4(13), 35–42.  
<http://xroads.virginia.edu/~HYPER/DETOC/assoc/13putn.html>
- Thomson, I and Boutilier, R G (2011). Part 17.2: Social licence to operate. In P Darling (Ed.), *Society for Mining, Metallurgy, and Exploration (SME) Mining Engineering Handbook* (3rd ed pp. 1179–1796). Englewood, Colorado: Society for Mining, Metallurgy, and Exploration.
- Ulula  
[www.ulula.com](http://www.ulula.com)

# FURTHER INFORMATION

*continued*



## Acknowledgements

### ICMM working group

The development of the toolkit was overseen by an ICMM working group chaired by Pieter Myburgh (Anglo American). ICMM is grateful to the members of the working group for their engagement on iterative drafts that resulted in the current document.

The working group comprised:

Marie Laure Lefebure (Areva)  
 Pieter Myburgh (Anglo American)  
 Caoimhe Buckley (BHP Billiton)  
 Simon Jimenez (Barrick)  
 Andy Lloyd (Barrick)  
 Irina Dumitrescu (European Copper Institute)  
 Kirsten Margrethe Hovi (Hydro)  
 Omar Jabara (Newmont)  
 Simone Niven (Rio Tinto)  
 Brenda Bates (World Gold Council)  
 Peter Fuchs (Glencore)

### ICMM team

Fernanda Diez led the process to develop this toolkit on behalf of ICMM.

### Consulting team

The toolkit was developed by a team from Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) led by Dr Kieren Moffat. CSIRO contributing authors include Dr Justine Lacey, Dr Airong Zhang, Simone Carr-Cornish and Naomi Boughen. The contribution of the University of Queensland's Centre for Social Responsibility in Mining, led by Dr Daniel Franks, in peer reviewing the toolkit and providing case study material is gratefully acknowledged.

CSIRO is Australia's national science agency and one of the largest in the world. CSIRO research delivers solutions for agribusiness, energy and transport, environment and natural resources, health, information technology, telecommunications, manufacturing and mineral resources. Our work delivers improvements to every aspect of life from oceans to energy, metals to medicine, and sustainability to food. CSIRO also works at the forefront of emerging sectors such as gene technology and nanotechnology. CSIRO's success is based upon 80 years of excellence in research. Working from sites across Australia and around the globe, our staff are focused on providing new ways to improve quality of life and the economic and social performance of industries in Australia and globally.

## Disclaimer

This publication contains general guidance only and should not be relied upon as a substitute for appropriate technical expertise. While reasonable precautions have been taken to verify the information contained in this publication as at the date of publication, it is being distributed without warranty of any kind, either express or implied.

In no event shall the International Council on Mining and Metals ("ICMM") (or its affiliates or contributors, reviewers or editors to this publication) be liable for damages or losses of any kind, however arising, from the use of, or reliance on this document. The responsibility for the interpretation and use of this publication lies with the user (who should not assume that it is error-free or that it will be suitable for the user's purpose) and ICMM assumes no responsibility whatsoever for errors or omissions in this publication or in other source materials which are referenced by this publication.

The views expressed do not necessarily represent the decisions or the stated policy of ICMM. This publication does not constitute a position statement or other mandatory commitment which members of ICMM are obliged to adopt under the ICMM Sustainable Development Framework.

We are not responsible for, and make no representation on, the content or reliability of linked websites, and linking should not be taken as endorsement of any kind. We have no control over the availability of linked pages and accept no responsibility for them.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of ICMM concerning the legal status of any country, territory, city or area or of its authorities, or concerning delimitation of its frontiers or boundaries. In addition, the mention of specific entities, individuals, source materials, trade names or commercial processes in this publication does not constitute endorsement by ICMM.

This disclaimer should be construed in accordance with the laws of England.

## Publication details

Published by the International Council on Mining and Metals (ICMM), London, UK.

© 2015 International Council on Mining and Metals. The ICMM logo is a trade mark of the International Council on Mining and Metals. Registered in the United Kingdom, Australia and Japan.

Reproduction of this publication for educational or other non-commercial purposes is authorized without prior written permission from the copyright holders provided the source is fully acknowledged. Reproduction of this publication for resale or other commercial purposes is prohibited without prior written permission of the copyright holders.

ISBN: 978-1-909434-13-4

Available from: ICMM, [www.icmm.com](http://www.icmm.com), [info@icmm.com](mailto:info@icmm.com)

Design: Duo Design Limited

### Citation

The International Council on Mining and Metals (2015). Stakeholder Research Toolkit. ICMM, London. ISBN: 978-1-909434-13-4.



## About ICMM

The International Council on Mining and Metals is an industry body created by leading mining and metals companies to catalyze strong environmental and social performance in the sector; and to enhance understanding of the benefits, costs, risks and responsibilities of mining and metals in contemporary society. It works as a not-for-profit organization, engaging with all parts of society and collaborating with 21 major mining and metals companies and 35 national mining and commodity associations that are its members.

ICMM is governed by the CEOs of the following companies:

African Rainbow Minerals  
AngloGold Ashanti  
Anglo American  
Antofagasta Minerals  
Areva  
Barrick  
BHP Billiton  
Codelco  
Freeport-McMoRan  
Glencore  
Goldcorp  
Gold Fields  
Hydro  
JX Nippon Mining & Metals  
Lonmin  
Mitsubishi Materials  
MMG  
Newmont  
Rio Tinto  
Sumitomo Metal Mining  
Teck

**ICMM**  
**35/38 Portman Square**  
**London W1H 6LR**  
**United Kingdom**

**Phone: +44 (0) 20 7467 5070**

**Fax: +44 (0) 20 7467 5071**

**Email: [info@icmm.com](mailto:info@icmm.com)**

**[www.icmm.com](http://www.icmm.com)**

Follow us

