



The Organisation

Core Body of Knowledge for the
Generalist OHS Professional



Safety Institute
of Australia Ltd



Australian OHS Education
Accreditation Board

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The OHS Body of Knowledge for Generalist
OHS Professionals has been developed under the
auspices of the **Health and Safety Professionals Alliance**



The Technical Panel established by the Health and Safety Professionals Alliance (HaSPA) was responsible for developing the conceptual framework of the OHS Body of Knowledge and for selecting contributing authors and peer-reviewers. The Technical Panel comprised representatives from:



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The Safety Institute of Australia supported the development of the OHS Body of Knowledge and will be providing ongoing support for the dissemination of the OHS Body of Knowledge and for the maintenance and further development of the Body of Knowledge through the Australian OHS Education Accreditation Board which is auspiced by the Safety Institute of Australia.



Synopsis of the OHS Body of Knowledge

Background

A defined body of knowledge is required as a basis for professional certification and for accreditation of education programs giving entry to a profession. The lack of such a body of knowledge for OHS professionals was identified in reviews of OHS legislation and OHS education in Australia. After a 2009 scoping study, WorkSafe Victoria provided funding to support a national project to develop and implement a core body of knowledge for generalist OHS professionals in Australia.

Development

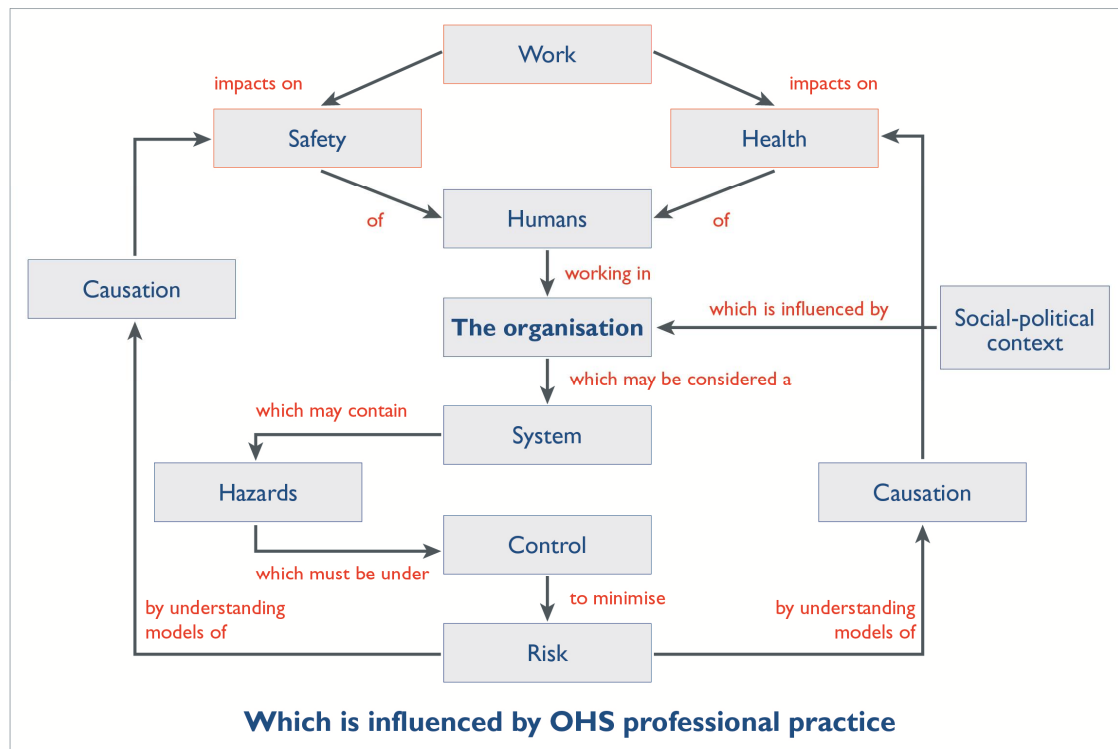
The process of developing and structuring the main content of this document was managed by a Technical Panel with representation from Victorian universities that teach OHS and from the Safety Institute of Australia, which is the main professional body for generalist OHS professionals in Australia. The Panel developed an initial conceptual framework which was then amended in accord with feedback received from OHS tertiary-level educators throughout Australia and the wider OHS profession. Specialist authors were invited to contribute chapters, which were then subjected to peer review and editing. It is anticipated that the resultant OHS Body of Knowledge will in future be regularly amended and updated as people use it and as the evidence base expands.

Conceptual structure

The OHS Body of Knowledge takes a 'conceptual' approach. As concepts are abstract, the OHS professional needs to organise the concepts into a framework in order to solve a problem. The overall framework used to structure the OHS Body of Knowledge is that:

Work impacts on the **safety** and **health** of humans who work in **organisations**. Organisations are influenced by the **socio-political context**. Organisations may be considered a **system** which may contain **hazards** which must be under control to minimise **risk**. This can be achieved by understanding **models causation** for safety and for health which will result in improvement in the safety and health of people at work. The OHS professional applies **professional practice** to influence the organisation to being about this improvement.

This can be represented as:



Audience

The OHS Body of Knowledge provides a basis for accreditation of OHS professional education programs and certification of individual OHS professionals. It provides guidance for OHS educators in course development, and for OHS professionals and professional bodies in developing continuing professional development activities. Also, OHS regulators, employers and recruiters may find it useful for benchmarking OHS professional practice.

Application

Importantly, the OHS Body of Knowledge is neither a textbook nor a curriculum; rather it describes the key concepts, core theories and related evidence that should be shared by Australian generalist OHS professionals. This knowledge will be gained through a combination of education and experience.

Accessing and using the OHS Body of Knowledge for generalist OHS professionals

The OHS Body of Knowledge is published electronically. Each chapter can be downloaded separately. However users are advised to read the Introduction, which provides background to the information in individual chapters. They should also note the copyright requirements and the disclaimer before using or acting on the information.

The Organisation

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The Organisation

Abstract

Generalist Occupational Health and Safety (OHS) professionals need to work ~~within~~ organisations and contribute to overall organisational goals rather than attempt to impose OHS change from outside. While acknowledging the complexities of organisations and the scope of relevant theory, this chapter explores some organisational parameters that hold particular relevance for OHS. The concept of organisation maturity sets the context for the opinions of an expert panel on ~~drivers~~ that influence the organisational OHS profile, aspects of leadership and organisational culture, and OHS performance measurement. The chapter concludes by considering the impact for OHS practice.

Keywords:

organisation, organisational maturity, leadership, management, culture, strategy,
OHS performance measurement

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1 Introduction

Generalist Occupational Health and Safety (OHS) professionals operate within organisations of varying nature and size. The complexity of organisations is reflected in an extensive body of literature and the recognition of 'organisational behaviour' as a discipline and its inclusion in many programs of study.

In 1964, Caplow defined an organisation as 'a social system that has an unequivocal collective identity, an exact roster of members, a programme of activity, and procedures for replacing members' (Caplow, 1964, p. 1). A few years later, Schein (1970, p. 9) described an organisation as 'the rational coordination of the activities of a number of people for the achievement of some explicit purpose or goal, through division of labor and function, and through a hierarchy of authority and responsibility.' Many subsequent definitions have accentuated the complexity of the organisation's status as a social system with a distinctive culture. For example, for Smircich (1983, p. 64), shared meanings are fundamental to organisations:

Organizations exist as systems of meaning which are shared to varying degrees. A sense of commonality, or taken for grantedness is necessary for continuing organized activity so that interaction can take place without constant interpretation and re-interpretation of meanings.

Furthermore, in 2011, Keyton defined an organisation as:

'a dynamic system of organizational members, influenced by external stakeholders, who communicate within and across organizational structures in a purposeful and ordered way to achieve a superordinate goal. With this definition, an organization is not defined by its size, purpose, or structure. Rather, an organization is defined by the linguistic properties that reside in its internal and external communication interdependencies (Deetz, 1992; Weick, 1979). An organization can change its physical location and replace its members without breaking down because it is essentially a patterned set of discourses that at some point were created by the members and codified into norms and practices that are later inherited, accepted, and adapted to by newcomers. (Keyton, 2011, pp. 9610)

It is vital that generalist OHS professionals have an understanding of 'the organisation' as the context for their work. Consequently, the aim of this chapter is to identify organisational parameters that impact on OHS professional practice. With an in-depth examination of organisational behaviour being beyond the scope of the OHS Body of Knowledge, this chapter takes the approach of a 'round table' discussion with an expert panel of four people who approach the organisation from different perspectives:

- An academic specialising in business management and leadership ó Professor John Toohey (JT)
- An OHS researcher who investigates major disasters ó Professor Andrew Hopkins (AH)
- An OHS educator with strategic business experience ó Professor Dennis Else (DE)

- An OHS professional operating at the executive level of a global organisation ó Dr Bob Stacy (BS).

The salience of this chapter to the OHS Body of Knowledge was highlighted at the beginning of the round table discussion:

JT I think one of the reasons that OHS has failed to have greater impact on corporate thinking is that we have not positioned ourselves well in the discussion. We are passionate about safety, health, wellbeing, rehabilitation, etc., and expect others to be. However, many managers and board members see these as impediments to business and profitability ó things to be worked around or grudgingly lived with. We need to get to the front of the pack ó supporting our organisations to incorporate -OHS thinking into profitability and corporate goal achievement. The discussion is not about OHS development; it is about industry development and how OHS thinking can contribute to this main game. The approach should be -What business are we in (public, private, not-for-profit)? and -How do we contribute to that business? The challenge is to get on the right foot and talk to managers and board members in their language, but with our orientation. We need to ask -What is the business doing and how do we contribute to that?

To support the OHS professional in understanding and working -within the organisation, this chapter addresses the dynamic nature of organisations, what drives organisations and the opportunities available to OHS professionals to influence organisational strategy. It considers the interaction between culture and leadership, and how managers influence culture by what they pay attention to as reflected in the things that the organisation monitors, measures and manages. This is followed by a discussion of OHS performance measurement, and, finally, an examination of the implications for OHS professional practice.

2 Historical context

From the late 19th century, the evolution of management theory ó driven by efforts to increase organisational efficiency ó has had a profound impact on management practices. Jones and George (2003) described the overlapping theories of scientific management, administrative management, behavioural management, management science and organisational environment that have influenced organisational behaviour and now inform current approaches. This chronology of theories is summarised in Table 1.

Table 1: Evolution of management theory (adapted from Jones & George, 2003)

Theory Characteristics	Prominent Theorists/Researchers	Contemporary Relevance
Scientific Management Theory (c.1890s–1930s)		
<ul style="list-style-type: none"> • “The systematic study of relationships between people and tasks for the purpose of redesigning the work process to increase efficiency” (p. 36) • Evolved towards the end of the Industrial Revolution as factory owners/managers found themselves unprepared for large-scale mechanised manufacturing • Common result: “Managers tried to initiate work practices to increase performance, and workers tried to hide the true potential efficiency of the work setting to protect their wellbeing” (p. 40) 	<ul style="list-style-type: none"> • Adam Smith (1776): job specialisation, division of labour] • Frederick W. Taylor (1911): principles of scientific management • Frank and Lillian Gilbreth (e.g. 1909): time and motion studies 	<ul style="list-style-type: none"> • Management of production systems • Lean production • Total quality management (TQM)
Administrative Management Theory (c.1900–1970s)		
<ul style="list-style-type: none"> • “The study of how to create an organizational structure that leads to high efficiency and effectiveness” (p. 40) • Principles of a bureaucratic system of administration: a manager’s formal authority, people occupying positions on the basis of merit and performance, clear specifications of tasks and authority of positions, a hierarchy of positions, and a system of rules and standard operating procedures • Management principles: division of labour, authority and responsibility, unity of command, line of authority, centralisation, unity of direction, equity, order, initiative, discipline, remuneration, stability of tenure, subordination of individual interests and esprit de corps 	<ul style="list-style-type: none"> • Max Weber (1922): principles of bureaucracy • Henri Fayol (1916): fourteen principles of management 	<ul style="list-style-type: none"> • Refined versions of Weber and Fayol’s principles provide the foundation for contemporary management theory
Behavioural Management Theory (c.1920s–1980s)		
<ul style="list-style-type: none"> • “The study of how managers should behave in order to motivate employees and encourage them to perform at high levels and be committed to the achievement of organizational goals” (p. 43) • Studies at the Hawthorne Works of the Western Electric Company in Chicago indicated that worker performance was influenced by a manager’s leadership behaviour; human relations training for managers evolved • Juxtaposition of management assumptions that workers are ‘inherently lazy’ (Theory X) or ‘not inherently lazy’ worker (Theory Y) 	<ul style="list-style-type: none"> • Mary Parker Follett (1918, 1924): worker empowerment; authority based on knowledge and expertise • Abraham Maslow (1954): hierarchy of needs • Elton Mayo (1933): Hawthorne effect • Douglas McGregor (1960): Theories X and Y 	<ul style="list-style-type: none"> • Self-managed, cross-departmental project teams • Worker empowerment • Importance of the ‘informal organisation,’ i.e. group norms • Managers who assume workers are motivated to help an organisation reach its goals can decentralise authority
Management Science Theory (c.1940s–2000s)		
<ul style="list-style-type: none"> • “An approach to management that uses rigorous quantitative techniques to help managers make maximum use of organizational resources...a contemporary extension of scientific management” (p. 47) • Developed during World War II as governments and scientists sought to maximise efficient deployment of resources • Includes quantitative management, operations management, total quality management (TQM) and management information systems (MIS) 	<ul style="list-style-type: none"> • Deming (1982): TQM 	<ul style="list-style-type: none"> Tools and techniques to inform decision making
Organisational Environment Theory (c.1950–)		
<ul style="list-style-type: none"> • Consideration of “the set of forces and conditions that operate beyond an organization’s boundaries but affect a manager’s ability to acquire and utilize resources” (p. 48) • Evolved from the development of open-systems theory (with organisational input, conversion and output stages) and contingency theory (‘there is no one best way to organise’) • Juxtaposition of mechanistic (centralised authority, clearly specified tasks and rules, close supervision) with organic (decentralised authority, looser control, reliance on shared norms) structures 	<ul style="list-style-type: none"> • Katz & Kahn (1966): open-systems theory • Burns & Stalker (1961): mechanistic/organic structures • Lawrence & Lorsch (1967): contingency theory 	<ul style="list-style-type: none"> • Synergy as an organisational objective • Organisations that operate as closed systems (i.e. ignore the external environment) experience entropy • Managers in organic structures can react faster to changing environments

3 Understanding ‘the organisation’

Understanding organisations is made more complex by their dynamic nature. Many authors refer to the lifecycle of an organisation and draw on biological science concepts to highlight organisational evolution and maturation processes (e.g. Lester, Parnell & Carraher, 2003). Corporate governance parameters have been linked to strategic thresholds in an organisation's lifecycle (Filatotchev, Toms & Wright, 2006), and the maturity of organisations has been associated with readiness for change (Zephir, Minel & Chapotot, 2011) and performance across a range of functions (Belt, Oiva-Kess, Harkonen, Mottonen & Kess, 2009).

3.1 Organisational evolution and maturity

Knowledge of an organisation's lifecycle position or level of maturity can aid managers in understanding the relationships between maturity and strategy and performance (Lester, Parnell & Carraher, 2003). Hudson and colleagues have mapped OHS parameters to develop a framework of organisational maturity in OHS (Hudson, Parker, Lawrie, van der Graff & Bryden, 2004; Lawrie, Parker & Hudson, 2006; Parker, Lawrie & Hudson, 2006). The Hudson (2001) maturity model for OHS culture (Figure 1) has informed the work of various researchers (e.g. Guldenmund, 2008) and OHS professionals. Detailed descriptors of OHS maturity are provided by Parker, Lawrie and Hudson (2006). Also, the concept of organisational maturity as it relates to OHS has been applied more specifically in, for example, the area of Safe Design (Sharp, Strutt, Busby & Terry, 2002).

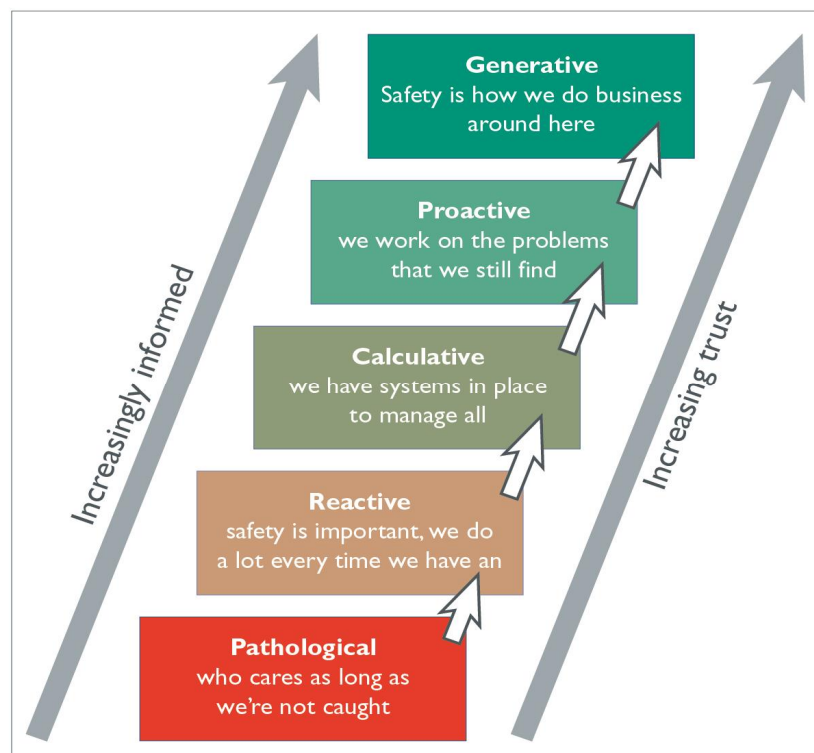


Figure 1: The evolutionary model of safety culture (Hudson, 2001)

3.2 Strategy

In the introduction to this chapter, the OHS professional was challenged to understand and work within the organisation rather than to try to impose OHS from outside. It was suggested that OHS professionals should initially ask themselves ‘What business are we in?’ A brief answer to this may be located in the organisation’s *mission* – its reason for existence. According to Abell (1980), an organisation’s mission should reflect its customer groups, customer needs and the distinctive competencies possessed by the organisation. Ideally, the mission should reflect the values espoused by the organisation; these values have implications for how managers intend to conduct themselves, how they intend to do business and the kind of organisation they want to build. Typically, an organisational mission statement is accompanied by a *vision* statement – a forward-looking view of where the organisation wants to be. Methods of achieving this vision are usually described in the organisation’s *strategy* – the set of actions that the organisation takes to achieve its goals. Generally, strategy development involves top management describing how they will achieve their goals using internal capabilities to respond to drivers in the external environment (Hill & Jones, 2001). The strategy may be rational, well described and articulated, or it may be emergent and evolve in response to changes in the external environment (Hill & Jones, 2001). The organisational strategy is manifest in the actions taken by the organisation and, in turn, by individual managers.

There is extensive theory relating to how organisations formulate and articulate visions and strategies to achieve their visions. Porter (1979) identified five competitive forces that influence business strategy:

- Jockeying for position among current competitors [which is influenced by:]
- Bargaining power of suppliers
- Bargaining power of customers
- Threat of new entrants
- Threat of substitute products or services.

Grove (1996) added a sixth competitive force:

- Availability of ‘complementors’ (companies that produce products that enhance the value of your own, e.g. companies that develop ‘apps’ for a smart phone enhance the value of the phone).

Hill and Jones (2001) located Porter’s forces in the broader macroeconomic, technological, social, demographic and political/legal environments, all of which can influence each competitive force (Figure 2). Strategy, therefore, is derived from an organisation’s decisions about what actions to take, given these external forces.

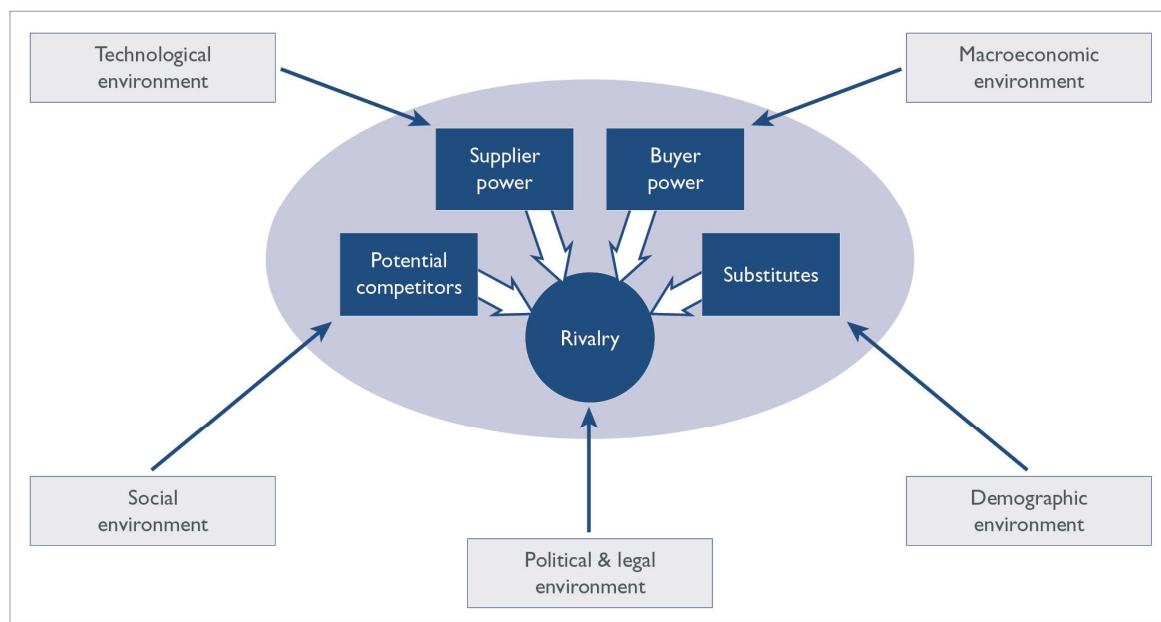


Figure 2: Strategy is influenced by competitive forces which are, in turn, influenced by macroenvironmental forces (Hill & Jones, 2001, p. 92)

An effective OHS professional will work within an organisation in a manner consistent with its mission, vision and strategy to make OHS part of the business. Furthermore, an effective OHS professional will look beyond these corporate position statements to identify the drivers of the business and its managers to help the organisation achieve its strategic, not just OHS, goals.

ST/DB: What do you see as some of the drivers that influence OHS?

JT When I talk to my MBA students, who are all employed as managers in organisations, OHS is just not on their radar.

ST/DB Andrew, would you agree about OHS not being on the manager's radar?

AH Organisations with major hazards, such as airlines, petrochemical industry and transport do have OHS on their radar.

JT: Yes they do, because these major hazards represent significant cost and considerable risk; this makes the chief financial officers pay attention. But mostly Australian organisations don't have OHS on their radar. They don't measure the costs of injury or insurance premiums, or the impact on labour costs, and so don't recognise the opportunities from improving OHS. The money in an organisation flows to

where it is needed most and, in a global financial crisis (GFC), this usually isn't seen to be OHS. Because most organisations haven't been monitoring the costs, most don't believe OHS is needed to help the business survive and thrive. But as OHS costs start to include not just physical injuries, but also psychological injuries, and as OHS law includes liabilities on directors of corporations, it is starting to be noticed.

ST/DB So John you consider that, apart from organisations working with high-risk hazards, Australian organisation do not have OHS on their radar as they do not monitor costs. Andrew and Bob, do you see any other drivers to get OHS on a manager's radar?

AH We have tried to use cost as the argument. I know WorkSafe for years were trying to say health and safety is profitable. Well it's pretty hard to make that argument.

AH: OHS will be ignored unless there are some real motives that drive people to attend to them, so we need to focus on what those motives are. Now for the really hazardous industries, those motives are clear. Apart from that, I think it's legal liability. And what I notice is that when lawyers go around talking to boards they are focussing on the legal liability and boards do take notice of that. Where there is real legal liability, that is a real driver and where there isn't real legal liability, it's nevertheless worth stressing the hypothetical possibility of people going to prison...Directors of companies are starting to pay attention for fear of going to prison, and mining companies in particular are worried about reputational risk.

BS: There is also the pressure that can be applied through government regulation. The directors of a mining company in Western Australia that had suffered three fatalities were summoned by the Premier of Western Australia and asked to justify their license to operate. When they can lose their whole business, directors start to listen.

AH: The government has to provide the driver to get directors to listen; without it, OHS people are ineffectual.

JT In addition to the legal driver, there needs to be a social driver where the community demands safer workplaces, which in turn has a political punch and gives the government the opportunity to demand better performance.

AH: The pressure can also come through the supply chain. In the construction industry, big companies are scrutinising the subcontractors to ensure that they have management systems in place, and sometimes change contractors who are not performing adequately.

BS: I would support that as when our company bids for work, we often tell our potential client: 'we will make your stats look better.'

- JT Perhaps the trick is to get the high-risk industries to demand better OHS performance from their suppliers, so that you get the focus from the big players and then it may trickle down.
- AH The high-risk industries recognise the risk in losing their licence to operate by not meeting community expectation or government expectation about OHS performance.
- BS: There is another pull for good OHS performance and that is as a commercial differentiator. Some companies want to create a commercial difference between themselves and their competitors based on safety performance: -Hire us because we have a better approach to safety.øIt differentiates them from their rivals.
- JT Sustainability is becoming a differentiator for many organisations. Organisations are positioning themselves as sustainable because they want to be perceived as an employer of choice and a good corporate citizen. When competing for the best employees, committing to sustainability and OHS makes the organisation more attractive to potential employees and helps retain the good ones, and is attractive to the share market. Some organisations are talking to the share market about their community responsibility and their ethical behaviour toward their own people as a business differentiator and a serious corporate value. It is helping to define their culture.

ST/DB So how do we get OHS people to have the same business impact as sustainability?

- JT In this GFC environment ó which could last for decades ó we need to be smarter about drivers. The business drivers right now are increasingly about:

- Sustainability
- Community responsibility
- Ethical practice
- Authentic leadership
- Corporate social responsibility and corporate citizenship.

I think OHS professionals have to tap into these drivers. OHS will build its profile and thrive if it taps these drivers and integrates into the goals of the organisation, and right now these relate to how a company sees itself in terms of its relationships, responsibilities and reciprocities within the community.

- AH I think ethical practice and sustainability are not drivers themselves unless you have hard-edge drivers such as:

- Legal liabilities
- Extra costs
- Damage to reputation

- Loss of social license to operate.

You need to make it clear that there is personal responsibility to do whatever is reasonably practicable to ensure the welfare of your employees. That's the legislation.

JT You also have to understand how an organisation thinks and makes decisions, particularly about financial analysis and return on investment. While OHS professionals don't need to be financial analysts, they do need to be able to follow financial and strategic arguments being put forward in support of a proposal. They need to understand how the organisation judges its performance, what it measures, what it pays attention to and how people are rewarded.

3.2.1 Summary of drivers for OHS discussion

The panel members differentiated between organisations with major hazards and those with lower-risk hazards. It was agreed that OHS is on the radar for managers in organisations with major hazards; the drivers for OHS in these organisations were identified as:

- Cost (although efficacy of cost as a driver is variable)
- Threat to license to operate
- Legal liability of individual managers
- Reputational risk.

For organisations where risks are lower, the potential drivers were identified as:

- Promoting OHS through the supply chain
- Commercial differentiation
- Social drivers of sustainability, ethical practice, community social responsibility and corporate responsibility.

There were some varying views on whether cost of OHS could be used as a driver for promoting OHS but this seems to be limited at least by the financial recording of OHS costs although that might change as some of the social impact of issues such as bullying bite on productivity and possibly damages payouts.

These OHS drivers can be mapped on the Hill and Jones (2001) model (Figure 3).

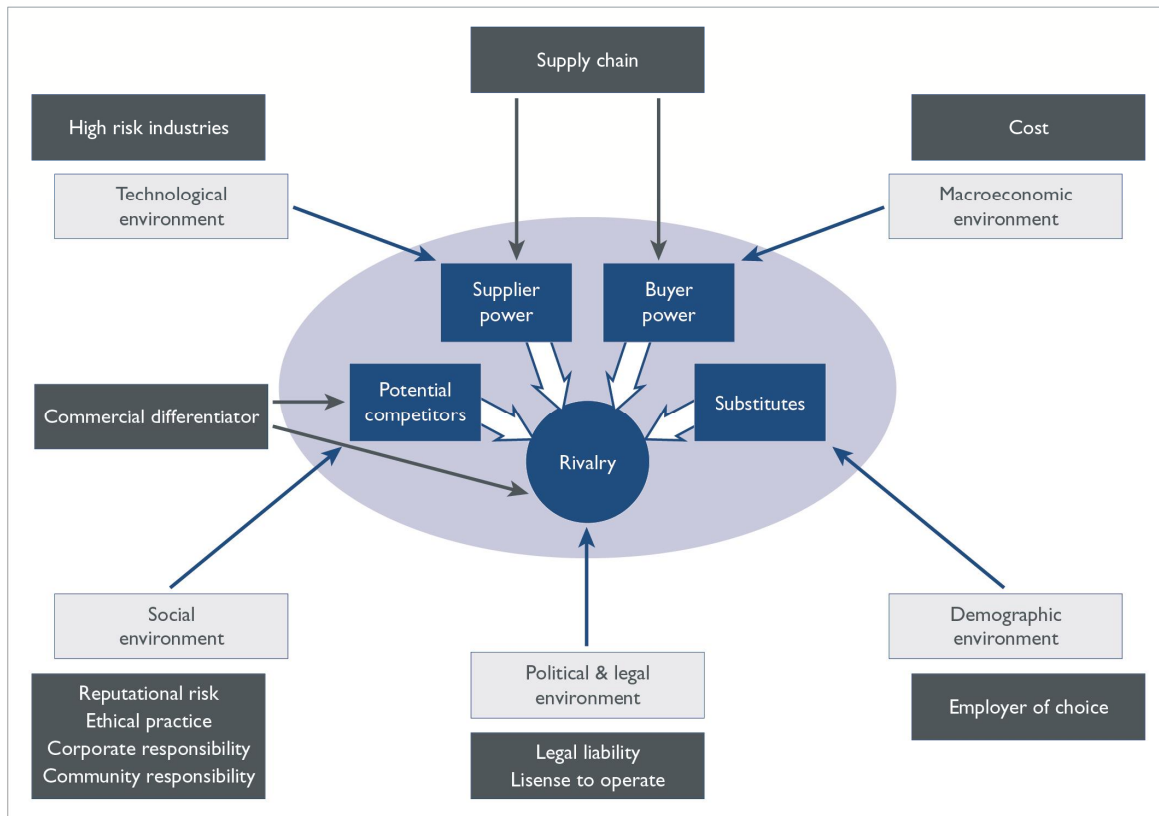


Figure 3: OHS drivers in the macroenvironment that influence organisational strategy (modified from Hill & Jones, 2001, p. 92)

The way that an organisation responds to the drivers in the environment is influenced by its culture.

3.3 Leadership and culture

Schein (2010) argued that leaders influence culture by what they pay attention to, measure and control. In a recent report for the Australian Department of Education, Employment and Workplace Relations, leadership and culture levers for achieving high-performing workplaces were identified (Boedker et al., 2011). Both views support a nexus between culture and leadership. Historically, the concepts of culture and leadership have travelled independent as well as overlapping evolutionary paths. For instance, transactional leadership and transformational leadership styles have emerged as prominent theories in the leadership literature (Yukl, 2010), while in the organisational culture literature, the prominent debate has focused on the distinction between climate versus culture (Guldenmund, 2000) and whether culture is something an organisation *is* (beliefs, attitudes and behaviours) or *has* (structures, practices and controls) (Hofstede, 1991).

Interest in safety culture and safety climate emerged as a subset of the interest in organisational culture and organisational climate. It was stimulated by the deficiencies in safety culture implicated in a series of major disasters such as Chernobyl in 1986 (Cox & Flin, 1998) and the 2005 Texas City disaster (CSHIB, 2007; Hopkins, 2008). Interest in safety climate pre-dates the interest in safety culture; the term 'safety climate' first appeared in the literature in 1951 (Guldenmund, 2000). Based on research in 20 industrial organisations in Israel, Zohar (1980) found that management attitudes towards safety influenced workers' perception of safety climate. More recently, Guldenmund (2007) argued that safety climate and safety culture are two means to the same end, which is determining how important safety is to an organisation. Reflecting on 30 years of safety climate research, Zohar (2010) proposed safety climate as a valid predictor and indicator of safety outcomes with leadership as one antecedent of climate.

Studies of safety culture have drawn on organisational culture research and theory, most notably:

- Schein's (2010) three levels of culture model (i.e. artifacts, espoused values and basic underlying assumptions) and his focus on leaders as the source of culture
- Hofstede's (1991) framework for assessing national and organisational cultures (with dimensions of power distance, collectivism vs individualism, femininity vs masculinity, uncertainty avoidance and long-term vs short-term orientation), which focuses on changing practices rather than values
- Martin's (2002) three-perspective theory of culture (i.e. integration, differentiation and fragmentation).

Drawing on Hofstede's view that it is easier to change practices than values, Reason (1997, 1998) advocated socially engineering an informed culture comprising four interlocking subcultures (or practices): a reporting culture, a learning culture, a just culture and a flexible culture. Hopkins (2005) built on Reason's work by also advocating changing practices in the first instance, but incorporating Schein's view that leaders play a key role in influencing culture as a result of the practices they pay attention to, measure and control. In contrast, Richter and Koch's (2004) application of Martin's three-perspective theory of culture to the study of safety culture in the Danish manufacturing industry supported the view that organisations contain subcultures, and that leaders are not alone in influencing culture. These different perspectives on safety culture grapple with the dilemma of whether culture is something an organisation *is* (how workers and managers value safety) or *has* (practices and policies designed to enhance safety). Reason (1998, p. 294) resolved this dilemma by asserting that 'both are essential for achieving an effective safety culture.'

Returning to the government's desire to foster productivity and innovation in Australian workplaces (Boedker et al., 2011), there is evidence that an organisational culture focused on safety (Hopkins, 2005; Zohar, 2010) contributes to health and safety and organisational

performance. Undoubtedly, leaders play a critical role in shaping the culture of safety and the safety climate as perceived by workers. Whilst safety culture and the relationship between safety culture and safety climate is now better understood than it was 25 years ago, leadership is an emerging area of safety research interest (e.g. Carrillo, 2011; Eid et al., 2011; Törner, 2011).

The following interview with Professor Andrew Hopkins and Professor John Toohey explores their perspectives on leadership and culture.

ST/DB What is the relationship between leadership style and the behaviour of followers?

JT In dysfunctional leadership, people lose the moral authority to lead because they don't treat people well and that's when we get these psychological issues of stress and bullying. I think that these are major issues and the research around this is becoming increasingly sophisticated. Philip Zimbardo (2007), in *The Lucifer Effect*, focuses on the individual, the situation and the culture when analysing dysfunctional behaviours. He sees leaders who display poor behaviours being copied and modelled by their subordinates. The poor behaviours of the leader give licence and tacit approval to treat people badly within the organisation.

ST/DB So leaders have to earn the moral authority to lead. In what ways are leaders the products of their organisational culture?

JT Leaders actually generate culture, but culture also throws up particular types of leaders. You get people who are in leadership roles who are there because they are promoted into a role. Managing people skills is zero; personal insight is zero; strategic nous is zero, but that culture has thrown that sort of person up and not only tolerates them but promotes them and embeds the dysfunction. If there is no corporate memory and often there is little and every few years the malaise is repeated.

ST/DB That is an interesting point. To ensure a culture does not 'throw up' leaders who might lack the requisite skills, what should leaders focus on to gain the respect of the workforce?

JT Leadership is about how you manage people. It's the reciprocal relationship where leaders offer their leadership and followers either for want of a better term accept or reject the leadership offer. There is reciprocity in that relationship. OHS, in its many forms, can become part of this relationship. For example, this theme is explored by Darryl Hull and Vivienne Read in the 2003 report *Simply the Best*, which looks at positive drivers in Australian workplaces. The report identified the top 15 or so indicators that people said contribute to excellent workplaces and the safety/security indicators, and feeling good type indicators such as quality of working relationships were at the top. Indicators like money were about two-thirds of the way down the list. This is Australian data and it identifies how people in some organisations divide into volunteers, survivalists, prisoners and whingers. The

culture generates the roles and leadership ó good or bad ó will embed them. Safety, in a wide sense, becomes one aspect of how people perceive they are treated.

ST/DB Andrew, you have written about culture, leadership and safety. What does culture mean to you?

AH I find culture a difficult word because it means different things. I like to bring it down to the way we do things around here; the way we make decisions around here. Different companies will make decisions in different ways, so I think you have to be more specific about culture and talk about it as the way we do things in respect to certain activities.

ST/DB John, what does culture mean to you?

JT Culture is how we do things around here. It can be good or bad ó functional or dysfunctional depending effectively on the leadership that drives it.

ST/DB You make an interesting point regarding the link between culture and behaviour. Andrew, what is your view on the source of culture in an organisation?

AH The trouble with focusing on behaviour is that those discussions usually focus on the grass roots and how we get people at the grass roots to behave in certain ways. The only way you get that is if the people at the top are behaving in certain ways, so that's where you have to start with leadership. How do we get the leaders to think or behave in certain ways? My levers are things like remuneration systems and organisational structures. If the people at the top want certain things to happen, then they have to set in place those certain things. What is going to make them want to set those things in place are external drivers and those external drivers are these things like big disasters or legal liability. There is a whole chain of things involved, so starting at changing the behaviour at the grassroots is absolutely the wrong place to start, absolutely the wrong place to start.

ST/DB So, where do you start if you want to change culture?

AH I go back to Edgar Schein a lot, you probably do too. He's got a wonderful statement about how leaders create cultures and they create it by what they systematically pay attention to. This can be anything from what they comment on to what they measure, control, or reward and other issues that they systematically deal with. That to me is an absolutely key statement. You are not going to get anywhere with OHS until your leaders are paying systematic attention to safety and noticing performance. And so the question then becomes what gets them focused on those issues, so we are back to these questions of drivers.

The other thing that I would like to see come out of this discussion is that if you want to change the culture of an organisation, you do not start at the bottom; you do not start with safety behaviour

programs. You do not start to train your people to talk about what it is to be mindful. This is what BP did years ago before Texas City. They had these discussion groups amongst all their workers and all their workers started to talk about being in an HRO, a High Reliability Organisation. But one of the things about being an HRO is that you make reports and then the organisation responds to those reports. Well this organisation didn't respond, so it just generated complete disharmony and alienation at the grassroots level because somehow the assumption was that you become an HRO by changing the hearts and minds of people at the grassroots and this doesn't involve the more senior leadership. It's farcical. That's the point I would want to stress.

ST/DB If leaders are the source of culture, including safety culture, where should they focus their efforts to change culture?

AH The way you change culture is by people at the top talking long and hard about how they have a different vision and want to change things and by teaching people. It comes back to what you mean by culture, and it comes back to the fundamental distinction between culture as mindset and culture as a set of practices. Those two things are not incompatible at all; cultures are sets of beliefs and attitudes and also sets of practices, and these two things go together.

But if you emphasise mindset as the fundamental characteristic of culture, then the way you change it is by education. If you emphasise practices as the central feature of culture, then you can go in and start changing the practices quite directly by giving instructions, perhaps by setting up compliance systems and possibly reward systems to change the way things are done. Focusing on practices is the way I see things happening effectively, seeing cultures as a set of practices and if you want to change those practices then you go straight to the practices and you change those directly. You don't worry about the mindset because the mindset will come along.

ST/DB Are you suggesting that by changing practices first, the appropriate mindset will follow?

AH If you change the practices and people's values are not consistent with those practices, then over time because of the phenomenon of cognitive dissonance, people will start to believe that it's important to do what we're now doing and the way of thinking will come along with it.

ST/DB What can leaders do to change practices?

AH So how do you change practices? This is to me the central issue and it is about reward systems; it is about having compliance systems and so on. It's more about forcing change and constructing change rather than educating people and hoping that they will change. And I think there's a difference between John and me in that respect.

ST/DB John, would you agree with Andrew's point that to change culture you must start with changing practices?

JT I think you're right, there is a difference between us, because I think the literature in change management demonstrates that you get change in organisations when people are motivated to change and understand why they're changing. That's why I always start with the vision and why a lot of strategies start with a vision of one that says where you want to be and the vision needs to be shared. It's not just the CEO or the Board having the vision, they need to communicate this down to the people in the organisation and the people in the organisation need to be able to articulate back to the senior people how they think this could operate or what might be the impediments to its operation.

ST/DB This discussion evokes the distinction between treating culture as something an organisation is (mindset) or has (practices). James Reason argues that both are essential. John, what is your view?

JT The issue about mindset and practice is a really important one. I don't think they're mutually exclusive, but if you change the practice and people don't have a commitment to that change and they don't have a mindset change, I don't think it's going to be very strongly embedded in their subsequent behaviours, I don't think that would last. So I do operate the opposite way; I start with saying if we now know where we want to be, let's start working on our mindsets about people understanding that and thinking about developing the practices from the mindset, where I think what you're saying is you focus on the practices. I guess you could debate it back and forth

ST/DB Andrew, would you agree with John's position?

AH It is interesting, but what you're wanting is an organisation that is encouraging people to identify the things that might be going wrong and report them, which is the essence of what it is to be a mindful organisation; the current fashionable term is 'resilient' or a 'generative' organisation. So it's all about getting information to flow upwards. How do you encourage people to collect and pass that information upwards?

I believe you do it by having a set of practices, so first of all you have to ensure, very importantly, that there's no blame. So this is about the organisation ensuring that there's no blame. Related to that there's got to be encouragement; you've got to have systems for thanking each and every person when they make such a report. You've got to make sure those reports are responded to, so you've got to have an implementation process to deal with those findings or those recommendations. So that's all about changing what the organisation does in order to encourage, if you like, a reporting mindset. Unless you change those practices in those kinds of ways you won't get the kind of mindset change that you're after.

But the mindset and practices do go hand in hand. I like to make the point that the concept of the way we do things around here carries with it a normative component; it's not only the way we do things, but it's the way we ought to do things that's inherent in that concept of the way we do things around here. And there's an implication that if you don't do it like that, well that's wrong and you know we should be doing something a bit different. So the values do go hand in hand with the practices, although they may be out of sync to some extent.

ST/DB You both agree that mindset and practices are essential, but differ with respect to which should be the focus for triggering culture change. Would either of you like to comment further?

JT Maybe it's situational, maybe you do it together in many situations. I would see a 'no blame' strategy as being a mindset change strategy. It's not just a practice; it's also about changing an attitude because you can't force people not to attribute blame. I think it may be the wrong discussion about whether you do one or the other; you probably need to look at how you change the practices and change the attitudes at the same time.

AH It's just that if you're a senior manager, it's easier to change the practices, change what happens than to change what's inside people's heads.

The problem is if there's inconsistency. If you, as manager, say safety is important, number one around here, but you don't model it then it won't work. No amount of preaching will work unless it's backed up with real action.

3.3.1 Summary of organisational leadership and culture discussion

The preceding discussion of organisational leadership and culture has reinforced that:

- There is a link between health and safety performance and high-performing workplaces.
- Culture ('the way we do things around here') is both a mindset and a set of behaviours. The behaviours may be the easiest to change, but if there is not an accompanying change in mindset or attitude, the behaviours will be not strongly embedded. Embedding the mindset requires education.
- Leaders influence culture by what they pay attention to, what they measure and what they control.
- Generally, strategy is reflected in the things that the organisation monitors, measures and manages.

3.4 OHS performance and performance measurement

The topic of OHS performance and performance measurement was taken up with Professor Dennis Else, who is an OHS educator and also has a strategic management role with a global construction company.

ST/D Firstly, Dennis, how would you describe health and safety performance?

DE It depends on the maturity of the organisation's thinking. At one extreme, the performance is very much about the absence of injuries and the cost of injuries; as the organisational thinking matures, the organisation starts to be unhappy with performance measures that are about things like lost-time injuries or even the measuring of anything in such a negative manner. They become much more interested in the social processes that are going on, whether they can rely on information flowing up through the organisation, how fast the information flows and whether they've got some built-in adaptive capacity.

But as you move to a more mature organisation it is much more difficult to get quantifiable measures. You're moving to a different level of comfort about whether you need to measure things in quantitative ways or whether you're prepared to go for qualitative assessments and reflections on how you are going. There's a maturity within the performance measurement that starts with the negative and very quantified, and as you go to more mature organisations, it becomes less quantified, more qualitative, and more interested in positive than negative attributes.

ST/DB From your corporate experience, how do you see senior managers being comfortable with such a qualitative approach?

DE Initially not at all. They want numbers; they're used to numbers, and that's where I think that OHS has to come to terms with the fact that numbers don't describe everything, and numbers can obscure the important things. This is actually a learning for managers that has implications beyond OHS. As they start to realise this as it relates to OHS, you can sometimes see them starting to realise it in terms of a range of other things that they're trying to measure.

ST/DB So have you been able to take your organisation on that journey towards qualitative performance measures?

DE Yes, I have. To do it you have to understand where the organisation is in its journey, and in a number of dimensions of that journey such as its HR practices and the maturity of its strategic skills. You've got to fit in to what is happening and, hopefully with an eye to where the organisation is trying to move, be in there at the leading edge of that movement. OHS has many tools to offer and some of the tools may actually be drawn in and used by the business on a broader front.

A good example is the concept of the Hudson maturity model. I've spent a fair bit of time introducing this to my organisation and it has informed a whole range of business processes, not just OHS. While the concept of business maturity started more in the quality area than in OHS, the concept is easily transferrable and I encourage people to look for the maturity models in any dimension of business activity; for example, there are supply-chain-management maturity models and contractor-subcontractor-engagement maturity models. They all lend themselves to enabling the organisation to map its position in the maturity journey and where it is trying to get to. The Hudson maturity model has actually been the centrepiece for the operational excellence program for our business, which is about how to get more value from all the business processes.

ST/DB Looking at Hudson's maturity model, would you say that if an organisation was 'reactive' or 'calculative,' perhaps they're less ready for the qualitative approach to performance measurement?

DE I think it causes you to reflect on questions such as 'Am I going to be able to get fewer measures and a more reflective qualitative approach consistent with an adaptive organisation at the top end of the maturity scale into an organisation that is at the reactive level?' Probably not. I think the mark of the effective OHS professional is that they can understand where the organisation is and what it is trying to achieve in a number of strategic directions, and then tailor the OHS performance measurement to help that overall journey. It is about moving people beyond where they are currently using realistic performance indicators to focus on the change you want.

ST/DB What proportion of organisations might be ready to take this qualitative approach?

DE That's probably the challenge. There are probably not many that get to that state. I'm sure that we've got a preponderance of organisations around the 'calculative' stage and so our OHS professionals have to be equipped to be able to deal with organisations at these levels. On the other hand, I think OHS professionals need to know what the vision of good OHS management and performance measurement might look like because otherwise they're going to focus on tightening everything up in those calculative organisations.¹ I think that's what we've got at the moment with the assumption being that adding another page of performance measures and getting people to follow a set procedures will fix the problem. Whereas it's probably a case of less is more. The fact is if you measure everything you've got no clarity, so by measuring some things and not others you are sharpening the focus. If you measure everything, everything goes back into background again.

I think OHS professionals should ask themselves 'What are the few key measures that I'm going to run for this year?' There may be others that you measure because you have to report on them anyway, which may well go to things you have to report to a regulator, but it's the measures that you've identified ó those key measures that reflect what you're trying to achieve to get a level of understanding by management and supervision ó that will have the impact.

¹ See *OHS BoK Systems*

If you take that old maxim of 'What interests my boss absolutely fascinates me,' then in your change processes you're going to be reliant on understanding the messages that are coming down from the actions of senior people – not just what they're saying, but what they're actually paying attention to. Therefore you've got to embed your performance measures for OHS into that which is important for senior managers. Then as senior managers talk about the performance measures through the business, the OHS performance measures are embedded in the discussion.

I think that as it moves towards greater maturity, an organisation starts to realise that OHS performance and business performance are the same things. What makes for success of the business are good social processes where they can rely on all the good ideas being captured, not just ideas coming from things that have merely gone wrong. As you get to a resilient organisation, and those concepts of resilience engineering come to the fore, people are actually picking up on things that are going well and why they're going well. Then you've got a reflective organisation that is constantly looking for ways in which it can improve.

You then get some of the performance measures both driving the activity and sharpening the focus of certain activities for a period of time. The performance measure may change to another set because you're on the next little bit of a journey and you want the lead indicators to both be telling the message of what's important, but also measuring whether you're getting there.

ST/DB Could you give some practical examples of the sorts of measures that you might have at one stage, and how they might change?

DE An example I can use is an emphasis on safety and design which was a strategic theme that we put into performance measures for all of the senior players so that instead of measuring lost-time injuries and lost-time-injury frequency rate they were asked to demonstrate that they had incorporated safety at the planning and design stage of their projects. They were set a target of six safety design solutions that had been implemented and six innovative approaches that they weren't able to incorporate because they perhaps got the ideas too late, but could inform their next project.

So the team of four senior managers had to come up with six safety design solutions that they'd actually implemented and could show had actually made it through to the job itself to get their normal performance pay. If they wanted to get the highest level of performance pay they had to do twice that; they had to implement twelve safe design solutions and twelve 'future learning' solutions. These were monitored centrally and taken as seriously as any other performance measures.

That requirement continues, but then the next story line was introduced when we wanted to shift the focus to put a greater emphasis on anticipation of change during the projects. So the next stage was to introduce a performance measure that was a qualitative assessment of the extent to which the reporting

processes done on a monthly basis shifted from talking about the past to talking about what's coming up.

ST/DB If you're changing performance measures as your strategic focus changes, there may be concern around how to measure improvement over a period of time, say five years or so. Do you still end up with a core of measures, some of them negative measures?

DE It would be lovely if we could go out with the fatality meter and measure likelihood of fatality this year versus likelihood of fatality next year. Well we can't. These high-consequence events that we're trying to stop happening are such infrequent events in reality that you're not going to get adequate measures in the lifetime of any leader, who's probably only going to dwell in the place for five years. Rather, you are going to have to measure some processes and see whether the processes have improved over time. For instance, we use either individual questions on our opinion surveys or run the maturity model through the business and self-assess where we are this year compared to last year and where we want to be next year.

ST/DB Regarding getting the managers to think about what was coming up, was it just another heading in the report? How did you measure if they were thinking ahead?

DE You're starting all the time from the strategic perspective. You've got a framework within which you reflect on what's been achieved in the business overall in the last year, then you're setting that strategic direction and targets for the next year and saying, 'Well okay, what measures of success should we use in going on this journey?'

Often those measures aren't easily compared to other parts of the business or certainly not to other businesses. So at some stage you've got to become comfortable in making assessments within your organisation rather than constantly trying to compare with other organisations. In my opinion, it's very seldom you'll find organisations where such comparisons are valid. The risk profile of almost every organisation is slightly different because you're sitting in a niche somewhere in the society of businesses. Your appetite for risk is slightly different to another organisation in both financial and OHS terms. To try to make out that you can compare the outcomes of one system with another is not valid. You're actually going back to the old approach where the thinking on systems was that there is a set of mechanical pieces that you can put together, and if everybody does as they should then we'll get the outputs that we want.²

My sense is that we have a challenge in terms of performance measurement because most businesses want to make comparisons on things like lost-time injuries (LTIs) and things that you can count. Whereas the best study we've got of LTIs versus fatalities found that when you plot LTIs against fatalities you get an inverse relationship (Saloniemi & Oksanen, 1998). You can't say one is the cause

² See *OHS BoK Systems*

of the other, but the fact is that measuring LTI rates is giving you absolutely no indication of the likelihood of a fatality.

ST/DB So is benchmarking a useful activity?

DE I'm not anti people comparing themselves. I'm a great believer in benchmarking across organisations with a view to finding what it is that other people do better than you do, and seeing whether there's learning to be had from it. However, benchmarking from the point of view of making a comparison that the absolute measure achieved means that that organisation is doing something better than you is a bit spurious. By all means, look to an organisation that is doing something that on a process level is vitally important to their business survival and therefore they will do it very well. It may not be as important to you, but you might as well learn from an organisation that's put a lot of effort into that process because it is vital for them.

ST/DB You've talked about managers' performance measurements. What about organisational OHS performance?

DE I think it's a hard one. We've got to the point where investment analysts are looking at OHS in companies and producing reports comparing the data from different publicly listed companies in terms of their fatalities and their injury rates, but they've also started to produce guidance for investors that is moving towards the qualitative capability so that they are now asking questions such as 'How is the organisation talking about the fatalities that they've had?' 'What are they demonstrating in their reporting that they've done as a result of this?' 'What they are doing to prevent a recurrence?' and 'What they're doing to learn from it?'

ST/DB Is that something that can be measured or is it something that is being reported in a discursive way?

DE I think you can only report on it; I don't think you'll get robust measures. They may well have measures in individual organisations at a point in time because they're trying to increase the amount of information that's flowing, and from that get more learning. But I think that will change over time anyway in the same organisation, because what you're really trying to do is to shift the culture to be one that is more of a learning culture; once that's happening, the focus may well no longer need to be on that particular measure as you're wanting to sharpen different aspects in the culture.

ST/DB We've used the word 'performance measurement' and have been talking about qualitative performance indicators, should we drop that word 'measurement'? Should we have 'performance management' or 'performance promotion' or...?

DE I think it's a good point you raise, whether in fact it should be something like 'performance assessment' or even just to take the hint of quantification out of it so there can be more of a reflective nature to it

and a more rounded, holistic assessment. That would be a major change in culture for a lot of organisations, but it is one that I see the more mature organisations could embrace.

ST/DB What advice would you give generalist OHS professionals in framing performance indicators that will take their organisations on such a maturity journey?

DE You've really got to make what's important to measure easy to measure because otherwise those things that are unimportant, but easy to measure and fit into the processes already going on, will predominate. So, if you've got monthly reporting, get a measure that relates to the quality of that monthly reporting and the extent to which it includes OHS in a robust and meaningful way rather than ticking the box. It's not everyone starting the meeting with an 'OHS Moment'; what we're looking for here is someone having their head engaged and thinking about risk and what risk is coming over the horizon, and what can be done to control that risk.

The OHS professional has to have a thorough understanding of and embrace the performance measurement processes that are already underway in the business so that in fact they are dovetailing performance measurement projects across the organisation.

Balanced scorecards³ may have a place here. If you're in an organisation that is comfortable with the concept of using balanced scorecards then you're left with a couple of choices: Do you have a balanced scorecard for OHS or do you have OHS embedded within the balanced scorecard of the organisation? My sense is that it's horses for courses, but if you can have OHS embedded in the overall balanced scorecard that the business is looking at rather than the one that the OHS professional is looking at, it's wiser. I've used balanced scorecards when the business was already playing with the approach. At one stage we had a balanced scorecard of OHS measures; at another time, OHS was woven into the balanced scorecard that was being used by the business. So it's really about identifying where the business is in terms of its maturity, and then slotting in measures selected to tease them forward.

My organisation has now moved away from the balanced scorecard as it has become clearer in its understanding of what it needs. Elements are still there of a set of measures that could be pulled out and put in a balanced scorecard, but it is no longer talked about. It's not a matter of slavishly checking that there is something in each quadrant of the scorecard; it's more organic and, because we are progressing to a slightly more adaptive organisation that has been informed by the models, we don't feel the need to be bound by the scorecard.

ST/DB Do you think the balanced scorecard is a useful tool for migrating organisations at the lower or middle levels of the Hudson maturity model?

³ See, for example, Mearns and Håvold (2003).

DE I think so. I think it is best used somewhere in between the *‘calculative’* and *‘proactive’* levels. Beyond that you almost leave it behind as you are then looking for a whole range of things that are a bit more social and adaptive, and you should really have a sense of the key processes that you’re working on. You become much more comfortable with uncertainty about many things, and reflecting on the uncertainty. I think that by that stage the organisation is listening to a wider range of things. They may be seeing all of this as a resilient engineering framework where they’re getting a lot of information from those things that are going well as well as those things that don’t go well. They’re closely attuned to the reality of where the organisation is at the moment and not working from some sort of book on *‘Running an Organisation 101’*. OHS is more embedded in the organisation and there is an understanding of the subtleties of questions such as *‘Why does the job really have to be that way?’* and *‘What are the unintended consequences when you change something?’*

ST/DB *As we are talking about performance assessment, do you see system audits as having a role?*

DE They are being done, but I do not see them as providing information for decision making. Rather, they are there as a base-level accreditation; they identify individual items for correction and, occasionally, system-wide issues that need to be fixed. But is it a measure of comfort to us? No, because we don’t really believe that these measures reflect the everyday reality anyway.

ST/DB *Is that a comment on audits per se or on the auditing processes, tools or individual auditors?*

DE I’m probably just showing prejudice on my part, but it’s very hard to get an auditor to audit in a resilient engineering way. If you go back to the model outlined by Dekker⁴ and the discussion on systems,⁵ it tells you that if you pay too much attention to those audits what you’re doing is trying to screw the system down, whereas really what you want is auditors who can actually see the procedural documents as starting points for conversations about the way we ought to conduct work and that’s very hard because that’s not the way the standards have been written or the auditors trained. However, audits definitely have a role at the *‘reactive’* and *‘calculative’* levels of maturity. At the lower levels of the maturity scale there is little interest and little organisation. So you’re trying to get a bit more organisation and start to systematise things and audits certainly have a role there.

Then it is important that the OHS professional take their foot off the systematisation and compliance accelerator before they start trying to crunch everything into a tight bolted-together system. The approach in this mode seems to be *‘If only we could now force people to do things in all these documented ways everything would be okay.’* Yes, it’s good to have that documentation and you’ve found a new level, but there is insufficient articulation of how the job should be done. Then we go through a phase where we get greater articulation of that, but then we can get too much of it and a desire to force people to do it exactly as it’s written.

⁴ See *OHS BoK Global Concept: Safety*

⁵ See *OHS BoK Systems*

ST/DB The annual report is often the way organisations bring all their measures together. How do you see this discussion on embedding qualitative OHS performance indicators into the overall organisational reporting being reflected in the annual report?

DE My sense is it's the narrative in terms of being able to tell the story of what the organisation is doing and how they're doing it. Can they provide a robust honest narrative of where they are and what they're trying to do? I think when we had all this 'good reporting' promotion that we tried to get going in the early 2000s we didn't have these ideas in mind. It was very much about ticking the box. The narrative was not there. I think that's partly where some of this questioning about corporate social responsibility, and in particular OHS, by some of the thoughtful large investors such as the Superannuation funds fit in. Instead of ticking boxes, you've now got some players coming into businesses and asking them to explain what they're doing and that has resulted in the need to write a coherent commentary.

ST/DB You have clearly placed OHS performance measurement within the Hudson organisational maturity model. How do you see OHS performance measurement as an agent of change and perhaps facilitating progress through the maturity model?

DE It comes back to identifying where you are at, picking the right tools for the right stage and changing the tools as the maturity develops. It is not a one size fits all; you need to be able to use the tools appropriately depending on the particular organisation. When an OHS professional comes into a business they've got to consider what is there. It may not be what they are used to working with; however, what's good about it, how can they get the most out of a particular OHS tool to move the company the next step along its journey in trying to be more effective in total business terms.

The maturity model is a very good organising framework for OHS professionals to identify where the organisation sits and then adopt projects that are consistent with the maturity of the organisation whilst constantly trying to get the leader in that organisation to move up the maturity ladder in their understanding of the issues. There's no point in trying to push a model of OHS when the leader doesn't actually understand or subscribe to that model.

The whole performance measurement area is about trying to get people to think in terms of moving it from just data through to information, from information up to knowledge and then up to wisdom. That is, how do you get individual data items and datasets to the point where they can inform wise decisions. Also, there's the other corollary to that which is: we don't really want to go collecting data unless there's some decision point at the end of it. What's the point of burdening our businesses with more and more things to measure unless you can actually show how that information can be used to decide something?

That's a summary of the change processes that I use. I always attempt to get senior management buying in; it may take two or three goes to arrive at the point where they are at the level that they will then drive it through the system. Unless there is the interest, will and capability to drive the change then don't bother doing it because it is not going to survive against a whole range of issues that have got the leader's attention and support.

ST/DB Is there any other advice about performance or performance measurement that you would want to give an OHS professional?

DE Yes there is. That is that we should be making reference to the HSE's Process Safety Indicators document (HSE, 2006), which uses the Swiss Cheese model⁶ to identify the defences or barriers that you're reliant on and then makes the argument I made earlier that you don't want lots of measures, just a few key measures that hit the critical risks and give you an indication of the health of your whole system. It has a process where it says, "Okay, what are the critical risks that this business faces?" "What are the ways we're going to kill people?" and then "What are the defences that we're reliant on?" A senior person in any business showing due diligence has to know the key risks and the key defences that the organisation is reliant on. So a third thing that they really need to know in terms of performance measurement is "How am I assuring myself that these key defences are in place and not full of holes?"

If the OHS professional developed their guidance for senior management on that basis they would have a clear process for identifying key critical risks and choosing the best indicators of the health of the OHS system. For instance, in construction at the beginning of the project you want a measure of the health of the processes addressing safety in design. How good are your risk workshops? Are they taking place when they should? Are all the key players attending? Are they the right players? Are you getting the right sorts of outcomes? Are those outcomes then being followed through to actually getting into the design? And are the solutions that are coming out high on the hierarchy of control? Then when the whole project is up and running you're probably highly reliant on your Safe Work Method Statements and so you want measures of the health and the effectiveness of those Safe Work Method Statements. Now if, as a senior manager, you have information that these defences are in place you'd have a lot more comfort than most currently have.

I would like to conclude by saying that in our conversation I have been drawn to reflect mostly on the basis of my current organisation. While this may not be the environment in which most OHS professionals work, it is helpful to have a vision of where you want to be even if you are not likely to get there. Many OHS professionals working in "reactive" or "calculative" organisations need to know how to initiate change to move those organisations to a more mature level. It is vital that they are able to diagnose the level of maturity and select realistic performance measures that can be embedded in the

⁶ See *OHS BoK Models of Causation: Safety*

overall organisational processes to nudge the organisation to a more mature level of thinking about OHS and the business overall.

3.4.1 Summary of OHS performance measurement discussion

When providing advice on OHS performance measurement (or perhaps *performance assessment*), the OHS professional should be mindful of the maturity level of the organisation. OHS performance indicators should be selected to:

- Focus on critical risks within the organisation
- Provide information on the *health* of the defences for the critical risks
- As far as practical be integrated into the existing processes and overall activity of the business.

The selection of fewer, but well-targeted indicators has the potential to provide more useful information on the important parameters and facilitate development of a learning culture that will lead the organisation to a more mature level of thinking. As agents of change, OHS performance indicators should be modified over time to address the required areas and to evaluate achievement of the required change. The requirement for OHS performance tools such as auditing and balanced scorecards is likely to change as an organisation matures and becomes more comfortable with qualitative performance indicators. Indeed, qualitative information is likely to be most effective in promoting change in management behaviour and leading to wise decision making. Of relevance is that qualitative information on *OHS governance* is increasingly being sought by investment advisors.

4 Implications for OHS practice

The overarching lesson for OHS professionals from this chapter is that they must reject the paradigm of imposing OHS *on* the organisation in favour of working *within* and *with* the organisation to contribute to and improve the business with OHS being part of the business activity. To be agents of change, OHS professionals must be able to work with managers, who typically set organisational strategy, and create and influence culture as a result of what they pay attention to, measure and control. The organisational and OHS performance indicators and the measurement process are vital tools for the OHS professional in driving change. Development of OHS performance indicators should take into account the maturity of the organisation, the strategic objectives and the critical risks. Measurement and reporting processes should be designed so that they are an integral part of the organisational management process.

5 Summary

It is vital that OHS professionals have an understanding of the organisation as the context in which they operate. This understanding should position OHS professionals to work within organisations to ask and respond to the question –what is the business doing and how do we contribute to that?ø

While corporate mission and vision statements and strategy documents can provide insight into the business of the organisation, the effective OHS professional will look beyond these corporate position statements to identify the drivers for the business and its managers, and so be able to integrate the OHS objectives and activities into the organisation's core business. Specific drivers for OHS will vary depending on the hazard and risk profile of the organisation. For organisations with major hazards, the drivers are likely to include threats to operating licenses, legal liability of managers and reputational risk. For organisations with a lower risk profile, the drivers may include promotion of OHS through the supply chain, commercial differentiation and various social drivers. While cost may be a driver for organisations with major hazards, its utility is limited by financial recording. The importance of identifying the drivers for safety and integrating OHS into the business of the organisation is reinforced by a demonstrated link between OHS performance and high-performing workplaces generally.

Culture is both a mindset and –the way we do things around here.øLeaders create and influence culture by what they pay attention to, and what they measure and control. Organisations are dynamic and there is a relationship between organisational maturity, strategy and performance, with OHS performance measurement being an important link in that it can drive as well as measure change. Because selection of performance indicators should take organisational maturity and strategic direction into account, the focus of the performance indicators may change over time. Indicators should focus on the important things to measure (i.e. critical risks), with the measurement and collection of information established as integral to business processes.

Whether measuring OHS performance or influencing culture or strategy, the initial focus should be at the top, with the organisation's leaders. Consequently, the effective OHS professional needs to be able to understand the business of the organisation, identify the drivers for this group, and be able to integrate OHS into the business of the organisation in a way that contributes to the overall outcomes of the organisation.

Key thinkers

Organisational culture

Edgar Schein, Joanne Martin, Geert Hofstede, John Kotter, James Reason, Andrew Hopkins
Gary Yukl, Frank Guldenmund

References

- Abell, D. F. (1980). *Defining the business: The starting point of the strategic planning*. Englewood Cliffs, NJ: Prentice Hall.
- Belt, P., Oiva-Kess, A., Harkonen, J., Mottonen, M., & Kess, P. (2009). Organisational maturity and functional performance. *International Journal of Management & Enterprise Development*, 6(2), 1476164.
- Boedker, C., Cogan, J., Langford, P. Meagher, K., Mouritsen, J., Runnalls, M., Sheldon, P., Simmons, S., & Vidgen, R. (2011). *Leadership, culture and management practices of high performing workplaces in Australia: Literature review and diagnostic instruments*. Sydney, NSW: University of New South Wales. Retrieved from http://www.ske.org.au/download/SKE_2011_Literature_Review_Diagnostic_Instruments_January_10Jan2011FINAL.pdf
- Burns, T., & Stalker, G. M. (1961) *The management of innovation*. London: Tavistock.
- Caplow, T. (1964). *Principles of organisation*. New York, NY: Harcourt, Brace & World.
- Carrillo, R. A. (2011). Complexity and safety. *Journal of Safety Research*, 42(4), 2926300.
- Cox, S., & Flin, R. (1998). Safety culture: Philosophers stone or man of straw? *Work & Stress*, 12(3), 1896201.
- CSHIB (US Chemical Safety and Hazard Investigation Board). (2007). *Investigation Report: Refinery Explosion and Fire* (No. 2005-04-I-TX). Retrieved from <http://www.csb.gov/assets/document/CSBFinalReportBP.pdf>
- Deming, W. E. (1982). *Out of the crisis*. Cambridge, MA: MIT Center for Advanced Educational Services.
- Eid, J., Mearns, K., Larsson, G., Laberg, J. C., & Johnsen, B. H. (2011). Leadership, psychological capital and safety research: Conceptual issues and future research questions. *Safety Science*, 50(1), 55661.
- Fayol, H. (1916). [English translation 1949]. *General and industrial management*. London: Pitman & Sons.
- Filatotchev, I., Toms, S., & Wright, M. (2006). The firm's strategic dynamics and corporate governance life-cycle. *International Journal of Managerial Finance*, 2(4), 2566279.
- Follett, M. P. (1918). *The new state. Group organization: The solution of popular government*. New York, NY: Longman, Green & Co.
- Follett, M. P. (1924). *Creative experience*. New York, NY: Longman Green & Co.
- Gilbreth, F. B. (1909). *Bricklaying system*. New York, NY: M. C. Clark Publishing.
- Grove, A. S. (1996). *Only the paranoid survive: How to exploit the crisis points that challenge every company and career*. New York, NY: Doubleday.

- Guldenmund, F. W. (2000). The nature of safety culture: A review of theory and research. *Safety Science*, 34(163), 2156257.
- Guldenmund, F. W. (2007). The use of questionnaires in safety culture research ó an evaluation. *Safety Science*, 45(6), 7236743.
- Guldenmund, F. W. (2008). Safety culture in a service company. *Journal of Occupational Health and Safety ó Australia & New Zealand*, 24(3), 2216235.
- Hill, C. W., & Jones, G. R. (2001). *Strategic management: An integrated approach* (5th ed.). Boston, MA: Houghton Mifflin.
- Hofstede, G. (1991). *Cultures and organizations: Software of the mind*. Berkshire: McGraw-Hill.
- Hopkins, A. (2005). *Safety, culture and risk: The organisational causes of disasters*. Sydney, NSW: CCH Australia.
- Hopkins, A. (2008). *Failure to learn: The BP Texas City refinery disaster*. Sydney, NSW: CCH Australia.
- HSE (Health and Safety Executive). (2006). *Developing process safety indicators: A step-by-step guide for chemical and major hazard industries*. Surrey, UK: Health and Safety Executive. Retrieved from <http://www.hse.gov.uk/pubns/priced/hsg254.pdf>
- Hudson, P. (2001). Safety Culture: The ultimate goal. *Flight Safety Australia*, 29-31.
- Hudson, P., Parker, D., Lawrie, M., van der Graff, G., & Bryden, R. (2004). How to win hearts and minds: The theory behind the program. In *Proceedings 7th SPE International Conference on Health, Safety and Environment in Oil and Gas Exploration and Production*. Richardson, TX: Society of Petroleum Engineers.
- Hull, D., & Read, V. (2003). *Simply the Best Workplaces in Australia* (Working paper 88) Sydney, NSW: ACIRRT, University of New South Wales. Retrieved from http://www.cosolve.com.au/files/simply_the_best.pdf
- Jones, G. R., & George, J. M. (2003). *Contemporary management* (3rd ed.). Boston, MA: Irwin McGraw-Hill.
- Katz, D., & Kahn, R. L. (1966). *The social psychology of organizations*. New York, NY: Wiley.
- Keyton, J. (2011). *Communication & organizational culture: A key to understanding work experiences* (2nd ed.). Thousand Oaks, CA: Sage.
- Lawrie, M., Parker, D., & Hudson, P. (2006). Investigating employee perceptions of a framework of safety culture maturity. *Safety Science*, 44(3), 2596276.
- Lawrence, P. R., & Lorsch, J. W. (1967). *Organization and environment: Managing differentiation and integration*. Boston, MA: Harvard University.

- Lester, D. L., Parnell, J. A., & Carraher, S. (2003). Organizational life cycle: A five-stage empirical scale. *International Journal of Organizational Analysis*, 11(4), 3396354.
- Maslow, A. (1954). *Motivation and personality*. New York, NY: Harper & Row.
- Martin, J. (2002). *Organizational culture: Mapping the terrain*. Thousand Oaks, CA: Sage.
- Mayo, E. (1933). *The human problems of an industrial civilization*. New York, NY: Macmillan.
- McGregor, D. (1960). *The human side of enterprise*. New York, NY: McGraw-Hill.
- Mearns, K., & Håvold, J. I. (2003). Occupational health and safety and the balanced scorecard. *TQM Magazine*, 15(6), 4086423.
- Parker, D., Lawrie, M., & Hudson, P. (2006). A framework for understanding the development of organisational safety culture. *Safety Science*, 44(6), 5516562.
- Porter, M. (1979). How competitive forces shape strategy. *Harvard Business Review*. March/April.
- Reason, J. (1997). *Managing the risks of organizational accidents*. Aldershot, England: Ashgate.
- Reason, J. (1998). Achieving a safe culture: Theory and practice. *Work & Stress*, 12(3), 2936306.
- Richter, A., & Koch, C. (2004). Integration, differentiation and ambiguity in safety cultures. *Safety Science*, 42(8), 7036722.
- Saloniemi, A., & Oksanen, H. (1998). Accidents and fatal accidents ó some paradoxes. *Safety Science*, 29(1), 59666.
- Schein, E. H. (1970). *Organizational psychology* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.
- Schein, E. H. (2010). *Organizational culture and leadership* (4th ed.). San Francisco, CA: Jossey-Bass.
- Sharp, J. V., Strutt, J. E., Busby, J., & Terry, E. (2002). Measurement of organisational maturity in designing safe offshore installations. In *Proceedings ASME 21st International Conference on Offshore Mechanics and Arctic Engineering* (Vol. 2), June 23628, Oslo, Norway.
- Smircich, L. (1983). Organizations as shared meanings. In L. R. Pondy, P. Frost, G. Morgan & T. Dandridge (Eds.), *Organizational symbolism*. Greenwich, CT: JAI Press.
- Smith, A. (1776). *The wealth of nations An inquiry into the wealth and causes of the wealth of nations*. London: Strahan & Cadell.
- Taylor, F. W. (1911). *The principles of scientific management*. New York, NY: Harper.

- Törner, M. (2011). The social-physiology of safety. An integrative approach to understanding organisational psychological mechanisms behind safety performance. *Safety Science*, 49(869), 1262-1269.
- Weber, M. (1922) [1978]. *Wirtschaft und gesellschaft* [Economy and society. Berkeley and Los Angeles, CA: University of California Press.]
- Yukl, G. (2010). *Leadership in organizations* (8th ed.). Upper Saddle River, NJ: Pearson.
- Zephir, O., Minel, S., & Chapotot, E. (2011). A maturity model to assess organisational readiness for change. *International Journal of Technology Management*, 55(364), 286-296.
- Zimbardo, P. (2007). *The Lucifer effect: Understanding how good people turn evil*. New York, NY: Random House.
- Zohar, D. (1980). Safety climate in industrial organizations: Theoretical and applied applications. *Journal of Applied Psychology*, 65(1), 96-102.
- Zohar, D. (2010). Thirty years of safety climate research: Reflections and future directions. *Accident Analysis & Prevention*, 42(5), 1517-1522.