

The essentials

OF SAFETY CULTURE

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a vision of the most
significant risks

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SEPTEMBER 2017

Editorial

1986. The space shuttle Challenger exploded just after lift-off and three months later the terrible nuclear accident in Chernobyl occurred. Operator error alone could not explain these two disasters. They were the result of a gradual accumulation of failures within the organisation. The investigators revealed that certain ways of doing and thinking were widely shared within the organisation and incompatible with safe operations.

The "safety culture" concept emerged as an important area of focus. The concept gradually spread, giving rise to a variety of meanings and actions. Did you know that there are more than fifty definitions of safety culture?

Today, ICSI is pleased to share its own position with regards to the safety culture

concept. It is the fruit of an extensive state-of-the-art review, carried out in conjunction with FonCSI, of discussion group deliberations, and of discussions and experience sharing with the institute's members and internal employees.

We hope that these *Essentials* will provide you with elements for understanding safety culture, and convince you that by improving your safety culture you can improve your fundamentals and your organisation's general performance.

No single person holds the keys to safety, so don't hesitate to share these *Essentials* with others around you!

Ivan Boissières,
General Manager of the Institute for an Industrial Safety Culture (ICSI)

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Understanding

what safety culture is

Definition

The safety culture is a set of ways of doing and thinking that is widely shared by the employees of an organisation when it comes to controlling the most significant risks associated with its activities.



The safety culture



The importance granted to safety in decisions and compromises

Several factors influence the long-term viability of a company: the quality of its products or services, the market and competition, its finances, regulations, its technical choices... and of course safety. But safety should not be placed in a "bubble" separate from the other factors at play: the safest company would be one at a complete standstill!

Deciding on compromises and trade-offs between cost, lead times, quality and safety is a core part of the job of not only managers and executives, but also all other company employees.

What importance does the organisational culture grant to safety in all these decisions? How can safety be given more weight in these decisions? These are the two questions raised by a safety culture approach.



A safety culture cannot be dictated; it is built and put to the test each day through words and actions.

Anthropological detour and organisational culture

All lasting human groups develop their own culture. This encompasses the shared experience of ways of doing (common language, ways of greeting each other or of dressing...) and ways of thinking (philosophical principles, views on what is and isn't acceptable in terms of behaviour, and so on).

Of course, companies are made up of diverse groups of individuals. But like all human groups, organisations – companies, trade unions, government bodies, non-governmental organisations... – create their own culture.

This is called an **organisational culture**, and it includes:

- ways of doing that are shared and repeated: organisational structure, rules and procedures, technical choices, patterns of behaviour... This is the visible part.
- common ways of thinking: knowledge, beliefs, what is considered implicitly obvious, attitude towards authority and debates... This is the invisible part; it is more difficult to perceive and the most complex to change.

The safety culture reflects the influence that the organisational culture has on matters relating to risk management.

Shifting the perspective

The safety culture approach makes it possible to **avoid attributing observed behaviours to individuals only**, as this line of reasoning rapidly reaches its limits when it comes to prevention. It aims to understand which of the organisation's characteristics have a positive or negative influence on the way employees perceive safety. These characteristics can include, for example, procedure clarity, communication with management, shared vigilance, contractor relations, the reporting and handling of incidents, the policy with regards to recognition/sanctions...



Each organisation has its own risks and constraints

Each organisation, each industry, faces different risks, such as explosion, fire, or falls from height... And different constraints, such as more or less stringent regulations, pressure from shareholders, or whether their market is captive or not. This raises the question: how does each organisation, subject to its own set of constraints, ensure that safety is properly taken into account when making decisions? How is the safety element incorporated into processes and practices?



Key points

The safety culture is a set of ways of doing and thinking that is widely shared by the employees of an organisation when it comes to controlling the most significant risks associated with its activities:

- long-lasting changes to safety behaviours cannot be made without shifting employees' perception of safety and its importance,
- the ways of thinking cannot be changed unless the concrete signs given by the chain of command evolve.

The safety culture is forged by the interactions between actors, within an organisation which must simultaneously adapt to its environment and ensure the integration of its members.

The safety culture reflects the importance the organisational culture grants to safety in all decisions, all departments, all occupations, and at all levels of management.

Sharing

a vision of the most significant risks

Should a safety culture attribute the same level of importance to all risks? In order to know what requires preventive measures and actions, the dangers that most threaten the organisation must be identified and everyone must be aware of them.

Organisations may be confronted with several types of risks: minor accidents, serious or fatal occupational accidents, or major accidents likely to result in a large number of victims and affect the industrial facilities or even the environment.

These different types of risks have different degrees of probability and severity.

So, which risks should be the focus of the organisation's efforts?

The priority of a safety culture approach is to control the most significant risks associated with the organisation's activities; in other words, the major and fatal accidents. And since all cultures are built on shared references, it is crucial that all employees within an organisation

Focusing only on reducing the incident rate can lead an organisation to overlook its preparation for the most serious risks.

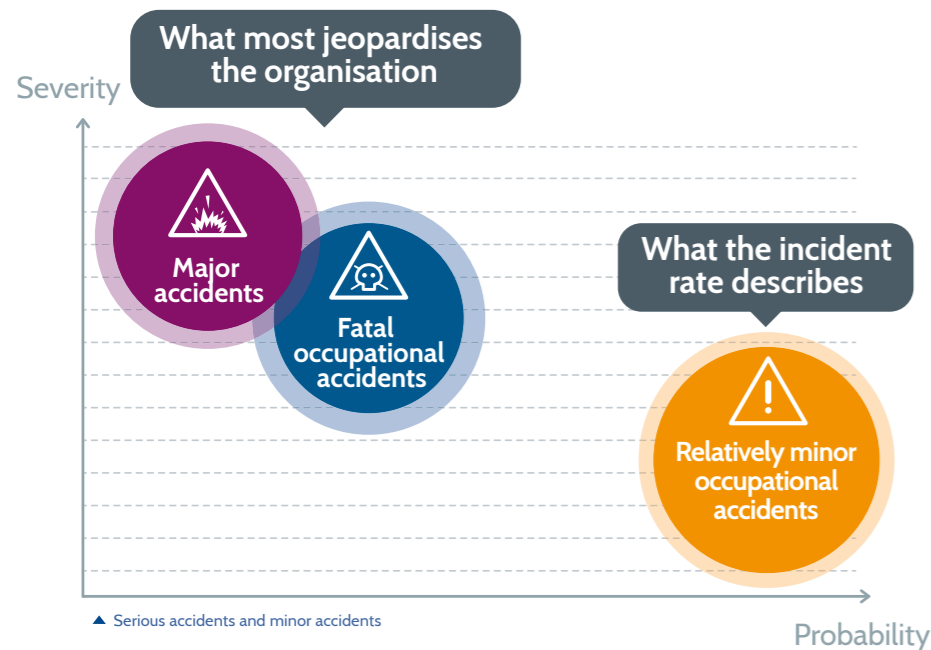
be given the opportunity to share and discuss their vision of the most serious risks. This is what we call shared awareness of the most significant risks.

Yet, in many companies, safety is managed based on the incident rate (indicators such as TRIR), which reflects accidents that have already occurred, and hence mainly minor accidents. It does not reflect the probability of a serious or major accident that has not yet occurred. Many organisations have seen a sharp decline in their incident rate with no drop in their number of fatal accidents.

All major industrial accidents have been the result of a combination of highly improbable factors. And yet, the most serious and least probable accidents are those that pose the most threat to organisations.

SHARING UNDERSTANDING OF THE MOST SIGNIFICANT RISKS

A serious accident only occurs if multiple barriers have failed, indicating that organisational failures played an important role. The contribution of individuals is only a useful explanation in certain so-called minor accidents.



Key points

A safety culture approach must target the most serious risks as a priority, i.e. those that jeopardise the survival of the organisation. This approach is more likely to be consensual, to rally all actors, and it can have an effect on the less serious risks – whereas the reverse is not true.

Shared awareness of the most significant risks is the foundation stone of a company's safety culture. The most significant risks can vary depending on the activity, the site, the occupation, but they must be known and shared by all of the actors in the organisation. Consideration of the most significant risks should include those that threaten internal employees, contractors, customers, local residents, the environment, the facilities, and the continuity of operations.

The pitfalls of the Bird pyramid

Writings on the topic of safety often refer to the Bird pyramid. "What does this pyramid tell us? That a proportional relationship exists between events with different degrees of severity. Let's imagine the same type of statistic with animals in Denmark; let's say there is 1 wolf, 10 bison, many horses and even more pigs. We have a ratio between different types of animals... but does it mean something? No, there is no relation between the categories," explains Erik Hollnagel, Professor at the University of Southern Denmark. In fact, at the base of the pyramid, only some of the events (so-called high-potential incidents) can possibly lead to a serious event (see the arrow in the illustration). Those are the ones on which focus should be placed.



▲ The pitfalls of the Bird pyramid

The prevention of major accident hazards should therefore never be based on actions that only target individual behaviour: it requires commitment from the entire organisation.

The first questions to focus on when considering a company's safety culture are:

- what are the risks that most threaten the organisation? These vary depending on the organisation: fall from height, fire, explosion, electrical risk, risk associated with transport, violence against staff...
- is this vision of the most serious risks and of the way to ensure safety widely shared by the organisation's employees? Do forms of "collective blindness" exist where certain risk categories are concerned?
- do the organisation's safety efforts target the most serious risks first?
- has the organisation given itself the means to assess its level of preparedness with regard to the most serious risks?

Improving safety performance thanks to 3 pillars

Progress has been made but the results in terms of safety seem to be reaching a plateau? To go further, more attention needs to be given to HOF.



These three “pillars of safety” – namely the technical aspects, the SMS and HOF – are, of course, not independent from one another: well designed and well maintained facilities, along with clear, applicable rules contribute to safe human activities.

The organisation's safety culture has a profound influence on the decisions taken in the three areas:

- the share of investment channelled into safety, operator involvement in the design process, and the resources allocated to maintenance make up the technical pillar,
- the SMS may be implemented primarily to satisfy external requirements, or it can be an opportunity to get different actors working together on the dangerous situations that are likely to occur and on the most appropriate measures to prevent them,

- are the people within the organisation perceived as the main source of risk – because, after all, to err is human – that must be controlled by frequent sanctions? Or rather as an individual and collective source of safety whose positive contribution should be encouraged through training, appropriate work tools and suitable forums for discussion?

A CLOSER LOOK AT HUMAN AND ORGANISATIONAL FACTORS

Within human and organisational factors, there are four elements that contribute to safety:

- **individuals:** skills, training, state of health...
- **the working environment:** the extent to which its design takes into account human characteristics and the tasks required,
- **work groups:** quality of the groups and discussions, sharing of information and knowledge, shared vigilance...

Human error is all too often cited as the reason for accidents; it is not the ultimate cause, but rather the consequence of other problems within the organisation.

- **the organisation and the management:** particularly the role of managers, the involvement of employees in setting the rules, a participative approach to handling problematic situations...

In many companies, this element of human and organisational factors remains the one with the most significant scope for progress. The aim is to identify and implement the conditions that encourage safer behaviours at all levels within the company.

Key points

Improving the safety culture requires an integrated approach to safety through coherent actions in three areas: **technical aspects, safety management, and human and organisational factors.** The “safety culture” approach cannot make up for insufficient action in any of these areas.

Safety approaches must include a **greater integration** of human and organisational factors.

What are the levers for action to improve the safety culture? Although the technical aspects, the rules, and the skills of the men and women within the organisation are inextricably linked, the greatest scope for progress resides in human and organisational factors.

Safety priorities have undergone several phases of chronological development, with each new dimension being added to the previous in order to improve safety performance:

- first, actions in the **technical sphere:** facility design, equipment quality, redundancy, fault sensors, automated protection systems...

- then, the development of **safety management systems (SMS):** formalisation of all processes, procedures and rules implemented to promote safety,

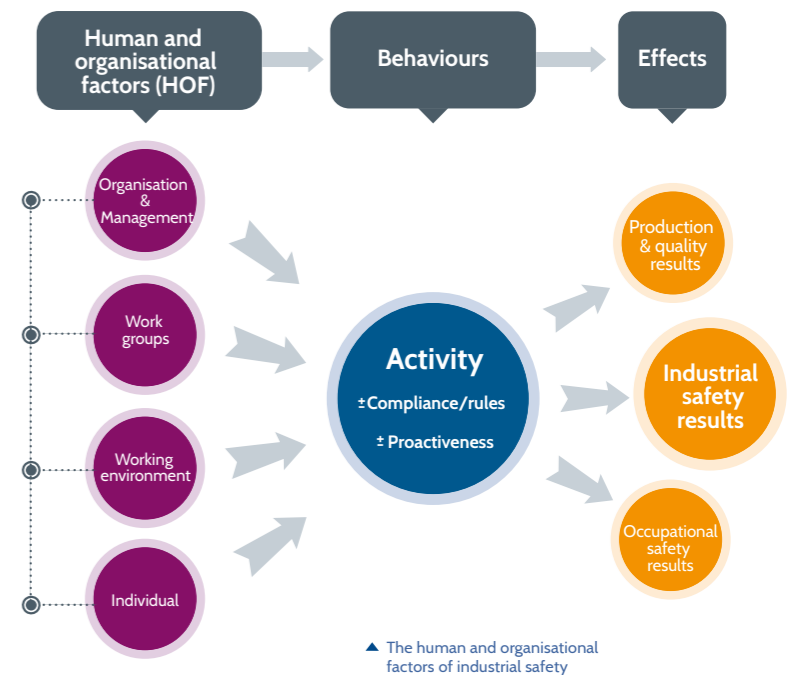
- and finally, more recently, recognition of the importance of **human and organisational factors (HOF)**, or in other words the identification and integration of the factors necessary in order for a human activity to be conducted efficiently and safely.

Can behaviours be changed?



“We often hear that ‘To improve safety, behaviours must be changed’. Yet behaviour is only the observable part of human activity. To understand what influences behaviour, we must in fact understand the conditions in which the employees were placed, as

these influence their activity. Imagine a beach strewn with rubbish: the probability that someone will throw a wrapper on it is very high. If the beach is completely clean, the probability that someone will throw a wrapper on it is a great deal lower. Certain conditions will positively or negatively influence behaviours.”
François Daniellou, Scientific Director at ICSI-FonCSI.



▲ The human and organisational factors of industrial safety

Involving management and sharp-end workers

How can the safety culture be improved? The challenge is to evolve towards an integrated safety culture, which encourages the involvement of both managers and sharp-end workers (frontline staff) in matters relating to safety.



A speak-up climate depends on the trust created by the organisation and on managerial practices.

Key points

For most companies that are advanced in the area of safety, the way forward lies in **shifting from a bureaucratic safety culture to an integrated safety culture**. This requires both taking into account what experts and management anticipate as risky situations and listening to what sharp-end workers have to say about the reality of operations.

An integrated safety culture implies that **both managers and operational staff feel responsible for keeping the system safe** through their activities and, to this end, interact with all other actors involved. An integrated safety culture requires strong leadership from management, increased involvement on the part of employees and their safety representatives, a redefinition of the role of HSE experts, and fluid interfaces between departments and with external companies.

Four broad safety culture categories can be identified, based on the weight that management and employees assign to safety in their decision-making process.

In a **fatalistic safety culture**, people are convinced that it isn't possible to influence the level of safety; accidents are perceived as "a stroke of bad luck" or the result of divine will.

A **shop-floor safety culture** occurs when management does not place much importance on safety, but operators develop their own prudent work practices and these get passed down from one generation to the next.

A **bureaucratic safety culture** develops when the company and its managers become responsible for the safety level. It introduces a formal safety system and relies on management to pass down orders, which may conflict with standard work practices within that occupation.

An **integrated safety culture** also aims to achieve a high level of safety, but results from the shared conviction that no single person holds all of the knowledge necessary for ensuring good safety performance.

TOWARDS AN INTEGRATED SAFETY CULTURE

As a result of regulatory constraints and external audits, most high-risk companies have developed a safety culture that leans strongly towards the "bureaucratic", with a heavy investment in process and HSE

experts, technical safety, procedures... Although this type of culture has certain strengths (e.g. formalisation of practices, implementation of several lines of defence, significant investments), it also has weaknesses (e.g. rules are established by experts who aren't working at the sharp end, excessive focus on rule-based safety to the detriment of managed safety).

A so-called **integrated culture encourages all stakeholders to contribute to the establishment of safety measures, their implementation, and their continuous improvement**. It requires:

- a commitment from the company's top management, visible through the announcements but also the decisions made, the managerial style and the forms of presence at the sharp end.
- a mobilisation of all managers on matters relating to safety, with a two-way contribution: each manager educates their team on the importance of the safety policy and reports back to their superior(s) any difficulties encountered with implementation,

the dangerous situations that remain, and any suggestions for improvement. The first level of management is a strategic level which must be given sufficient leeway to find the right balance between rule-based safety and managed safety, as it is closest to the sharp end of operations.

- the involvement of employees, who must demonstrate professionalism each day: adherence to applicable rules and reporting of those that are not, a questioning attitude and shared vigilance, proactiveness by pointing out dangerous situations, for example, or by suggesting improvements to management and the occupational health and safety committee.

An integrated safety culture also requires the organisation to encourage discussions about safety, among personnel and between managers and employees, and to include support functions, employee representative bodies, as well as external companies and external stakeholders in discussions on the topic.

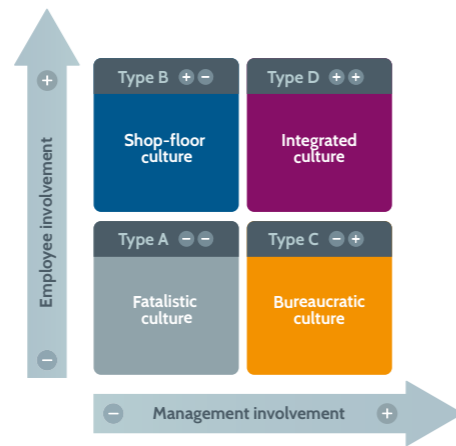
Demonstrating leadership

Leadership includes three main elements to encourage employee engagement:

- what the manager does on a daily basis (their vision, their safety behaviour, their decisions...),
- the kind of communication they establish with their employees (trust, willingness to listen, presence at the sharp end...),
- the technical or organisational resources they are able to allocate to safety (ensuring equipment is conducive to safety, handling problematic situations, keeping the teams informed...).

Here are 7 ways to develop one's safety leadership:

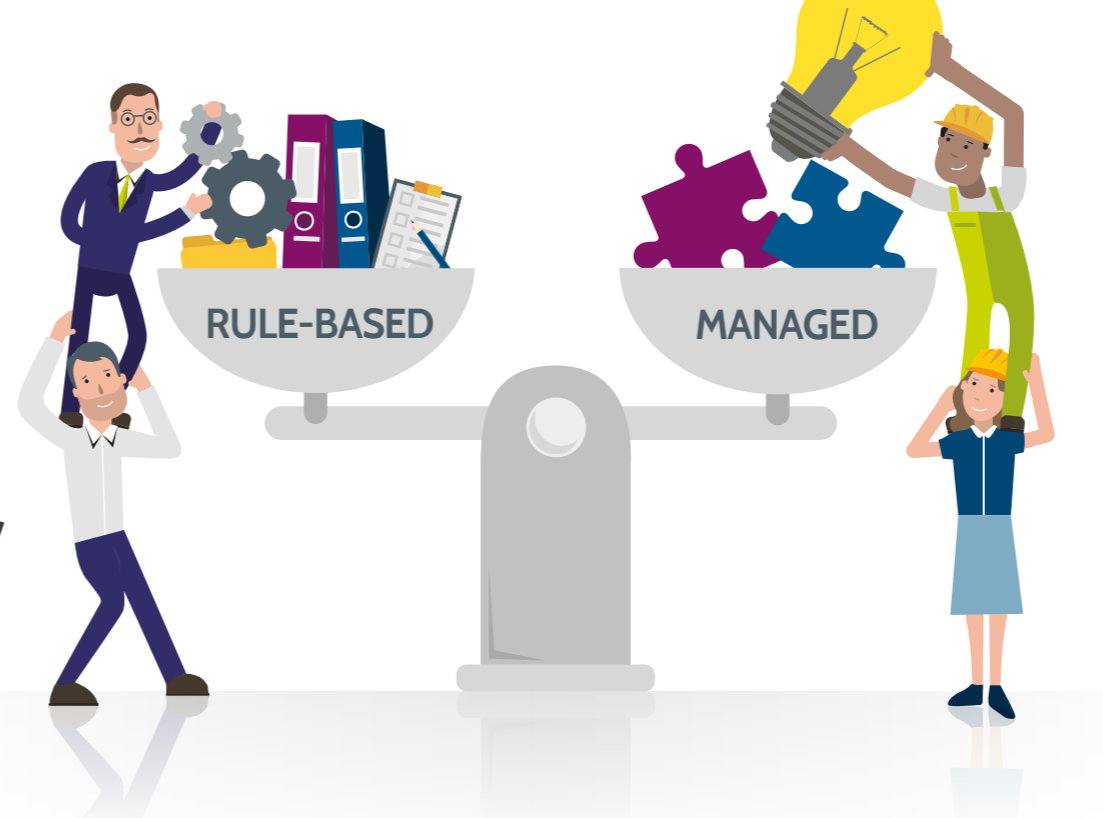
- Create the safety vision so that employees understand the rationale behind the safety policies,
- Encourage employees to share the vision so they get behind it and get involved,
- Give safety its rightful place in the decision-making process, for a technical and organisational environment that promotes safety,
- Be credible, by aligning words and actions,
- Encourage team spirit and cross-functional cooperation, to create a culture of shared vigilance,
- Be present in the field, to align management requirements with reality at the sharp end,
- Give recognition for good practices and apply fair sanctions, in order to create a just culture and a climate of trust.



▲ The types of safety culture according to Marcel Simard

Finding

the right balance between rule-based and managed safety



Rules and procedures exist to ensure safe production... but does the reality of operations match what was imagined? Anticipating as best as possible and dealing with the unexpected are the keys to a suitable safety culture.

Every production operation undergoes prior assessment by experts (production, HSE...) and operational staff to ensure it is carried out safely. Based on the supposed context and the result to achieve, the organisation will have established rules and procedures to follow and allocated technical resources. But in reality, the context is rarely exactly as anticipated... and to achieve the result, the human activity must adapt.

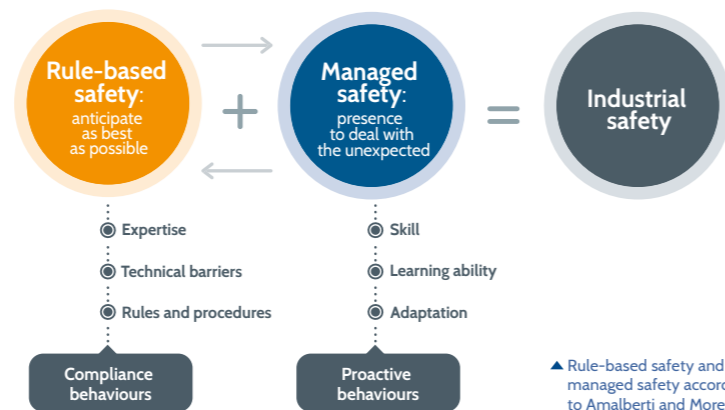
COMPLIANCE AND PROACTIVENESS

Safety is underpinned by two complementary elements:

- the best possible anticipation of situations that could occur and the implementation of rules and means to deal with them safely: **rule-based safety**. Its focus is on compliance with rules and procedures.
- the skill of the men and women who are present in real time, identify the actual situation and react appropriately: **managed safety**.

Its focus is on proactive and appropriate individual or collective behaviours when faced with a situation.

Safety can be threatened on both fronts, by non-compliance with fundamental rules in well-identified situations and by an insufficient capacity to adapt to unexpected situations. Safety performance requires an acknowledgement of the fact that no single person holds the keys to safety. It requires putting up for discussion the scientific knowledge of production and safety experts



and the individual and collective experience-based knowledge of sharp-end workers and managers.

The organisation must therefore invest in both aspects:

- for rule-based safety: identify critical tasks, implement technical safety (barriers, automated procedures), ensure that procedures are feasible and reality-based,
- for managed safety: develop the skills of the teams and front-line management, improve the way they function as a group.

It must also encourage coordination between the two, through better integration of operational experience feedback and field experience in procedures and rules. This is a crucial part of the role of front-line management.

NO SINGLE MODEL EXISTS WITH THE RIGHT BALANCE BETWEEN RULE-BASED AND MANAGED

The right balance between rule-based safety (SR) and managed safety (SM) varies according to the industry. The high level of safety achieved by the first model – the ultra safe (heavily rule-based) model (see table below) – might lead some to think that it is the one to adopt in all circumstances. But choosing the wrong model for an activity

carries serious risks: immobilising fishing boats at port by imposing on them rules equivalent to those applicable in the nuclear industry is no more advisable than entrusting the control of a reactor to a super-expert who would push the reactor to its limits in order to maximize its power.

The right model is the one which enables the organisation to fulfil its missions to the highest standard of safety that can be achieved given its particular set of constraints.

Where should the cursor be set?

“Compliance behaviour is the one on which safety depends, but it cannot be established at all times. It is hoped that safety thus hinges on a second element: operator intelligence. But how much leeway can people be given to adapt to situations, not with improvisations, but with knowledge that is no longer exactly that for which everything was designed to begin with? This is one of the issues all companies face: what will we allow? What won't we allow?”
René Amalberti, Director of FonCSI

	Ultra-ruled Predominance of rule-based safety	Ultra-adaptive Predominance of managed safety	Ruled-adaptive
Cursor positioning	$S_R + S_M$	$S_R + S_M$	$S_R + S_M$
Examples of sectors	Nuclear facilities Air navigation Blood transfusion	Sea fishing Extreme sports Disaster medicine	Petrochemical industry Energy transmission
Main characteristics	Accidents are infrequent but consequences are major Strong regulatory and international pressure System is stopped if all the right conditions are not in place Large number of technical barriers and procedures	High rate of accidents Exposure to risk is “part of the job”, within a changing and sometimes very unpredictable environment Extreme rule formalism would kill the business. Safety hinges on the expertise of leaders and their capacity to take appropriate initiatives rapidly	Risk taking is not sought, but important variations in conditions must be managed without halting production Considerable work goes into anticipation and barrier set-up But teams are required to take initiatives in terms of detection and correction

Key points

There is no “best” safety culture *per se*; rather, there are safety cultures that are more or less suited to the environment in which the organisation is embedded. Rather than importing models that were developed for other contexts, each entity must make strategic choices in order to strive to be exemplary in managing their own specific constraints.

Increasing managed safety – as a complement to rule-based safety, which is always necessary – is an often under-exploited avenue for progress. While rule-based safety is often the result of a centralised and regulated approach, to consolidate managed safety the organisation will need to invest in the skills of its staff – particularly decision-making skills –, give front-line managers some free rein, and encourage debate between professionals as well as group discussions about operational experience feedback.

Assessing the safety culture, analysing the current situation

Before a safety culture can be changed, a precise assessment of the current situation is required. What type of assessment is required? Under what conditions?



A widely shared diagnosis is the starting point for a change process.

Key points

The assessment is a crucial starting point for any organisation wishing to change their safety culture. It looks at both the practices of the different categories of actors and at their perceptions of safety management. The more this diagnosis is shared by all stakeholders, the higher the chances of mobilising them later on.

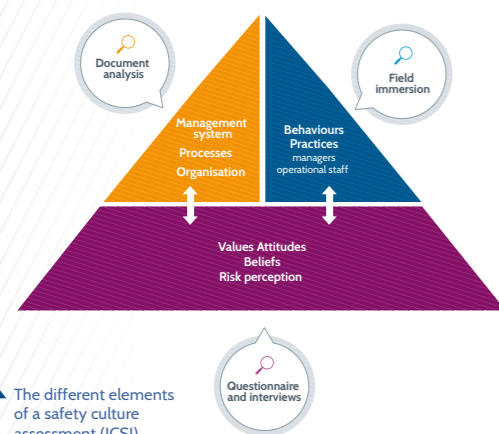
The assessment is not an objective in itself. It is best to avoid embarking on this type of undertaking if the organisation is not ready to collectively face and deal with the (often deep-rooted!) problems which the assessment reveals.



A company may find itself in a situation where it questions its safety culture and wants to change it, e.g. following a serious accident, a series of incidents, or after significant demographic, technological or organisational changes... But before any change can take place, an assessment of the existing safety culture is necessary in order to determine their current situation.

QUESTIONING THE WAYS OF DOING AND THINKING

The safety culture combines ways of doing and ways of thinking (mindset), and its least visible layers are those that most influence the behaviour of actors. It is illusory to



▲ The different elements of a safety culture assessment (ICSI)

imagine that a simple and quick evaluation could identify these. Evaluating – or describing – a safety culture means understanding how the organisation's culture positively or negatively influences safety-related decisions.

A diagnosis is a snapshot of how those working at the heart of the organisation perceive safety-related matters and how safety is experienced and integrated in daily practices, from top management right down to front-line staff.

The assessment must make it possible to:

- make visible what people in the organisation are thinking: it looks at beliefs, perceptions, convictions,
- know what they're doing: by clearly identifying safety practices and behaviours, the difficulties encountered, deviations from instructions/rules,
- question the coherence and alignment between what they are thinking and what they are doing,

It is important to note, however, that a company's top management should only initiate an assessment of its safety if it is ready to:

- involve all other concerned parties in the process: all echelons of management, employee representatives, front-line staff, support departments, contractor companies,

sometimes local residents or regional/local authorities...
 • hear, share and discuss news even when it is bad,
 • draw from the diagnosis the consequences necessary in terms of action.

SHARING THE DIAGNOSIS AND ITS RESULTS

A safety culture assessment is a process involving all actors. It draws on several complementary methods: analysis of internal documents (procedures, SMS, accident rate...), questionnaire surveys, individual and/or group qualitative interviews and field immersion to observe work situations and the decisions and compromises that are made there each day.

The result of the assessment is not an objective measurement which everyone is expected to accept as true. It is an intermediate objective that must be communicated to the actors concerned, put up for discussion, fine-tuned and amended.

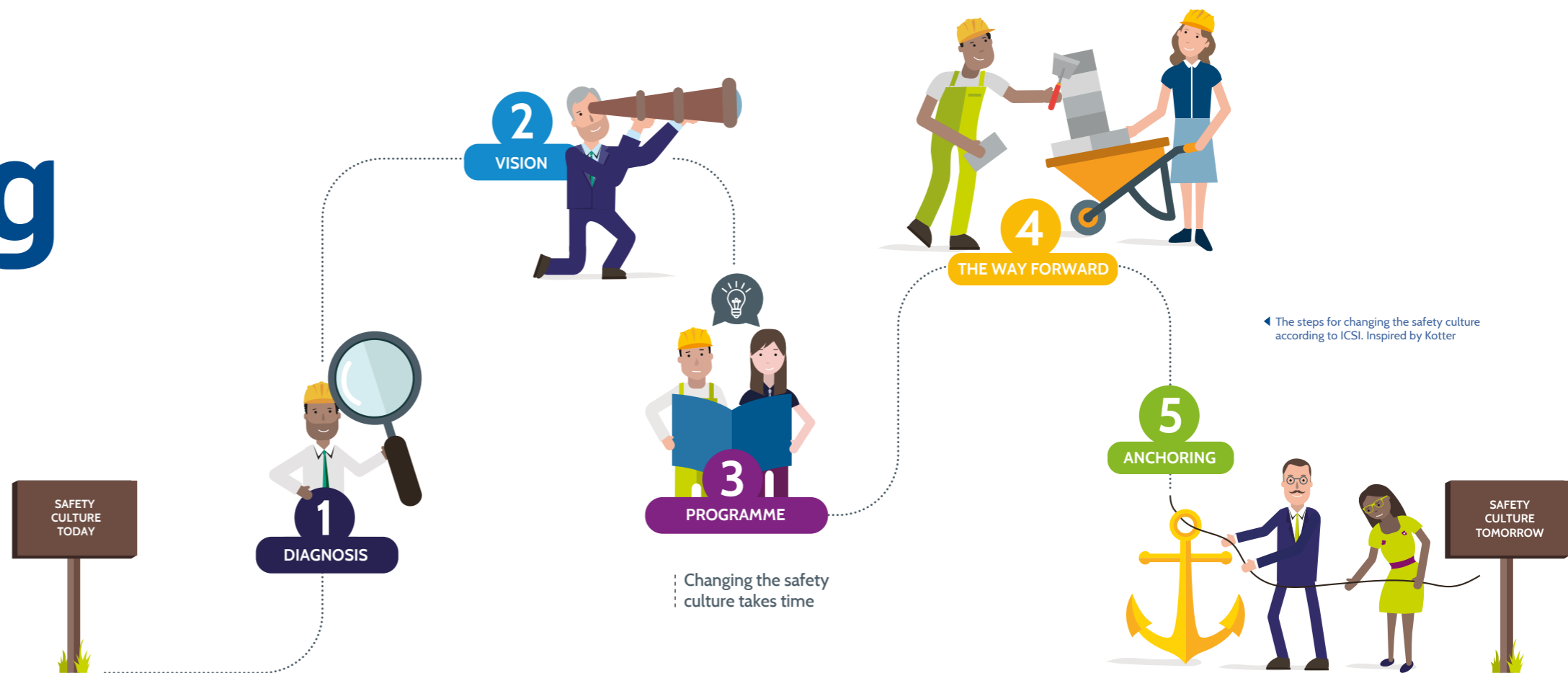
Too many companies conduct a safety culture assessment and fail to follow it up with actions that are appropriate given the findings. This is counter-productive: the employees will have developed expectations as a result of the assessment being carried out and may feel cheated if no follow-up action is taken.

Examples of issues raised during an assessment

- To what extent is the prevention of the most serious risks a priority shared by all?
- What is the perceived level of consistency between words and actions?
- What are the variations between the ways in which different actors perceive the current state of safety?
- Does the technical design and that of the safety management system and procedures take into account the reality of activities and the constraints faced daily?
- In what ways do work practices already ensure a good level of safety? What is the human cost of this for workers?
- How does the organisation strike a balance between rule-based safety and managed safety?
- How does management demonstrate leadership where safety is concerned? To what extent is it present at the "sharp end"?
- What is the quality of the processes for communicating operational experience feedback to the upper echelons, for dealing with the feedback, and of ensuring measures/actions? Are there any signs of "employee silence", due for example to the ill-considered use of sanctions or the absence of recognition?
- How flexible is the organisation in adapting to unexpected events?
- To what extent does the industrial policy encourage the contributions of contractor companies to operational experience feedback and, more generally, to prevention?

Changing the safety culture is a long-term project

Can a safety culture be “bought” by applying an external frame of reference? It is the mobilisation of all parties based on a shared vision of the strengths and weaknesses of the current situation that makes it possible to gradually change an organisation’s safety culture.



◀ The steps for changing the safety culture according to ICSI. Inspired by Kotter

Changing a safety culture is not like changing an organisation chart or a manufacturing process. It is impossible to change the safety culture of an organisation without changing the “soil” from which it was born, i.e. the organisational culture. It is impossible, for example, to improve the reporting of dangerous situations by sharp-end workers without changing the sanctions policy that hinders reporting or if positive contributions to safety go unrecognised.

with the aim of correcting any problems within the organisation quickly... but not sustainably. No, a real process of change in the medium and long term must be undertaken, leading to change not only of practices but also of the mindset. This implies:

- a shared conviction that change is necessary,
- the existence of resources, including time (it can take several years),
- the mobilisation of all actors,
- a steadfast commitment from top management and a willingness on their part to reassess their own practices,
- possibly getting the perspective of an external party that can provide positive criticism without being complaisant.

IDENTIFYING THE AMBITION AND SETTING THE COURSE

The aim must be a more integrated safety culture combining a high degree of involvement from both management and employees. Based on the shared view of the current situation, the first step is to co-construct a vision of the level of safety culture wanted in the future: “the ambition”.

Changing models



“The programme needs to be realistic and pertinent, adapted to the establishment, but, at the same time, have the potential to truly change the safety culture rather than simply consolidating the status quo. Because it is possible to make small improvements to weak points which do not shift the establishment away from its main model. For example, it is possible to maintain the bureaucratic culture by improving it a little, but this does not necessarily constitute a shift to an integrated safety culture.”
 Marcel Simard, Sociologist and Professor at the University of Montreal, Canada.

One major challenge is to ensure consistency in the collective approach despite the possible turnover in individual actors.

Where do we want to go and why? Who are the key people to support this change? What strategies for change and in what time frame?

To achieve the long-term objectives set, different actors must be mobilised to construct a programme combining:

- quick wins on points that are easy to deal with, in order to demonstrate that a process of positive change has begun,
- symbolic actions, which are more difficult to implement but tackle a significant problem – these are the ones that have the greatest impact on staff,
- perception correction actions, which aim to correct misunderstandings or fight rumours,
- actions to reinforce the entity’s strong points,
- substantive actions, including the integration of human and

organisational factors, that require different stages and will produce effects gradually.

DEPLOYING THE PROGRAMME AND ENSURING THE NEW PRACTICES AND VALUES ARE FIRMLY ANCHORED

Action implementation must be planned, detailed at the operational level, supported and adjusted, closely monitored, and evaluated.

Good communication about the programme is a must, with a reminder of objectives, field testimonials... Difficulties are disclosed, next steps are outlined. Victories are celebrated and the difficulties encountered are identified, analysed and dealt with. Periodic progress reports are prepared and discussed by the executive committee and the occupational health & safety committee.

Key points

A change in safety culture cannot be brought about by an accumulation of disparate actions implemented in a top-down fashion only. It requires a real plan for change, with a wide consensus on the initial state of the safety culture and a shared vision of the level of safety culture sought for the future.

The change in culture is not restricted to safety only: it must be based on deep transformations of the different aspects of the organisation and of the management style.

Changing the safety culture takes time. Improving safety performance is an ongoing process which requires an iterative approach and unwavering commitment from all concerned.

Targeting

7 attributes of an integrated safety culture

Certain organisational cultures are more favourable than others to taking safety into account in the decision-making process. The good news is that we know their characteristics. This is an excellent starting point for knowing where to concentrate change efforts!

Key points

The organisational culture characteristics which are favourable to taking into account safety are known and grouped into seven major attributes. To steer an organisation towards an integrated safety culture the following must be combined: a strategic approach, a willingness to mobilise all actors, and a small number of key processes on which to work.



Much research work has highlighted the desirable features of an organisational culture that is favourable to industrial safety. They can be grouped into seven major attributes, which can be used as a basis for reflection when setting the ambitions for the future. Mobilised actors will need to identify a small number of specific priority objectives:

STRATEGY-RELATED AMBITIONS:

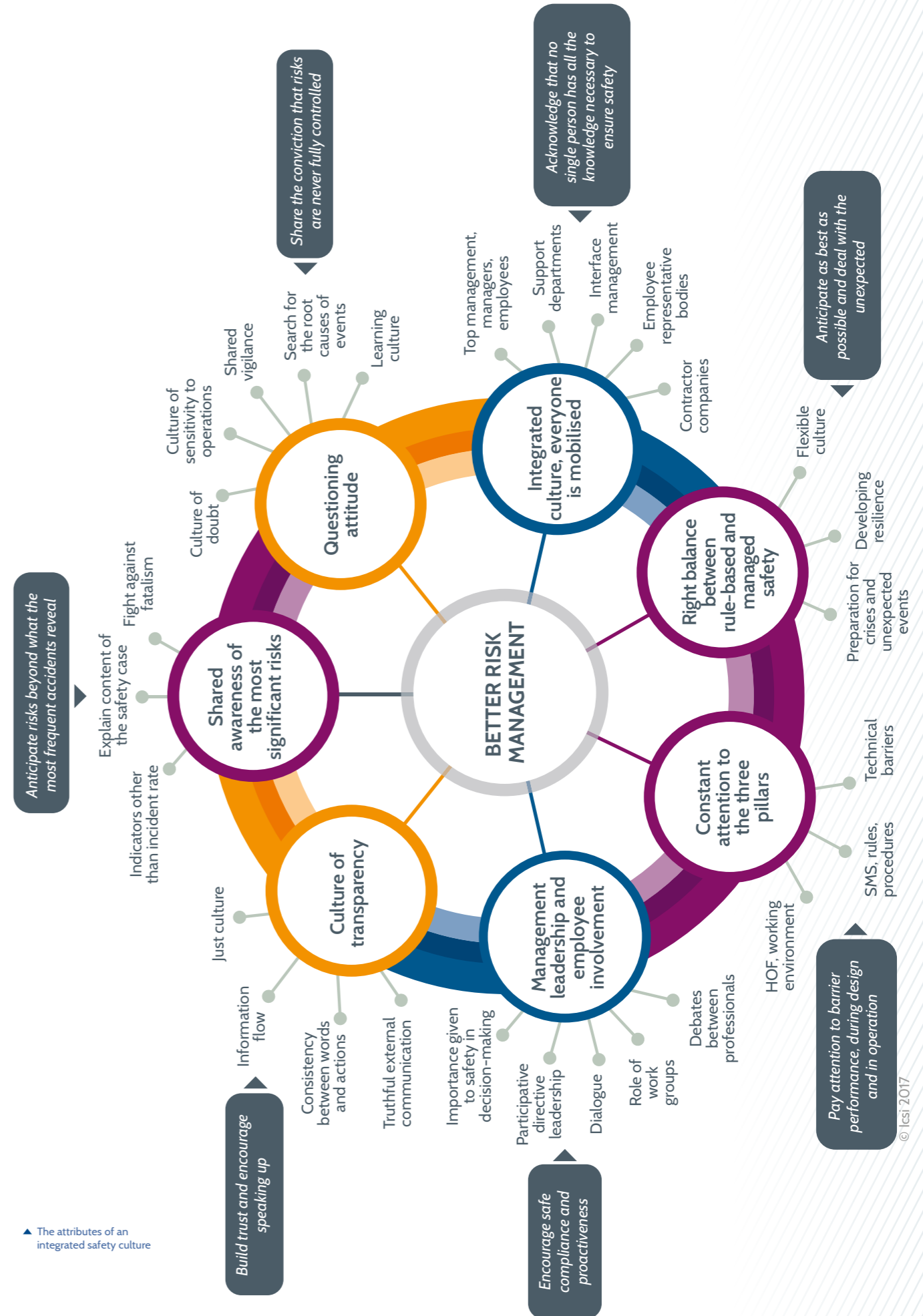
- restore priority to the prevention of the most serious risks,
- define what balance should eventually be achieved between rule-based safety and managed safety,
- pay constant attention to the 3 pillars: technical aspects, rules, and human and organisational factors.

ACTOR-RELATED AMBITIONS:

- ensure that all other actors such as support services and employee representative bodies are mobilised...
- improve management's safety leadership and develop all programmes and measures that encourage employee involvement.

PROCESS-RELATED AMBITIONS:

- instil a questioning culture that encourages doubt, reporting, and the search for root causes,
- encourage transparency by developing a just culture that explicitly admits the right to make mistakes, and in which recognition and sanctions are given when due.



Improving safety benefits the entire organisation

Because it addresses fundamental aspects of the organisation, safety culture-related action has positive effects on the company's overall performance.



Because, ultimately, undertaking a process to improve safety culture has an effect on the fundamental aspects of the organisation (quality of communication, working environment, policy regarding recognition/sanctions...), its benefits extend beyond improved risk management. It forces the discussion of phenomena that were kept quiet or hidden. It is an opportunity to strategically assess the strengths and weaknesses of the organisation.

A safety culture approach can encourage:

- greater congruence between the company's management and the realities at the sharp end,
- a more balanced positioning of middle management between what feeds downward from upper management and what feeds upward from the sharp end,
- an improvement in material and psychosocial working conditions,
- continuous improvement and innovation, through increased participation,
- improved reflection on vocational training programmes and onboarding,
- a breakdown of barriers between departments and more fluid interfaces,
- deeper partnerships with contractor companies,
- an improvement in labour relations and in the way employee representative bodies function,
- an improvement in relations with regulatory authorities, local residents and the media,
- better environmental results, and improvements in other areas of corporate social responsibility,
- an improvement of other aspects such as product quality, brand image and adherence to lead times,
- and much more!

Good safety is good business



"Working to improve the safety culture can result in management that is more in touch with the reality of operations, teams that are much more supportive of each other, suitable working environments, motivated

employees... These elements are not specific to safety; they are the fundamentals for an organisation to run smoothly. From this perspective it is easy to understand a catchphrase that may seem a little like an advertising slogan: good safety is good business. Good safety performance is often an indicator of good performance overall."
Ivan Boissières, General Manager of ICSI.

Safety is one of the most consensual issues within the company and it is a subject that has a great deal of influence in improving the company's overall performance.

Key points

The safety culture approach proposes to **improve safety performance by working on the underpinnings of the way the organisation operates.**

From this perspective, **safety is a strategic lever for improving the company's overall performance.** Because it can be a consensual subject, prevention of the most significant risks is a good entry point for working on the organisation. Any progress made will yield results not just in the area of safety, but potentially in all other areas.



Find out more

On www.icsi-eu.org, discover our new section devoted to safety culture!



The *Essentials* guide you are currently reading is a summary of the *Cahier de la Sécurité Industrielle* "Culture de sécurité :

comprendre pour agir".

This is a comprehensive report based on the work conducted by the "Culture

de sécurité" working group and on discussions and experience-sharing with ICSI's members and employees. Within it, you will find all of the key concepts, arguments and scientific references relating to safety culture. This publication is only available in French at this time.

2'46" to understand safety culture? We've taken up the challenge! Watch our animated video on the topic!



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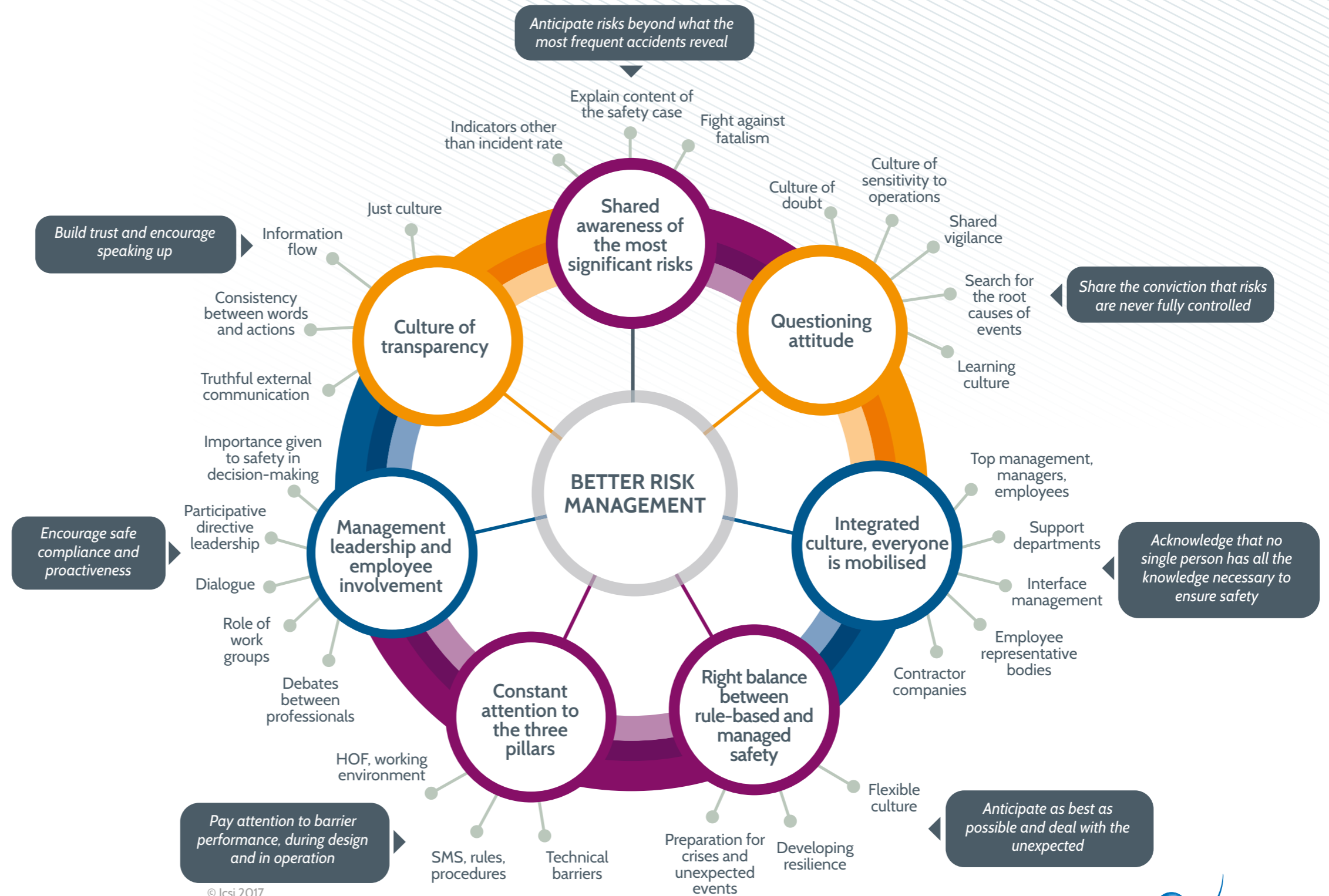
Desirable attributes of safety culture

The attributes of an effective safety culture are the subject of many scientific publications, including by Reason, Westrum, Weick and Sutcliffe, and several international organisations. ICSI's "rosace" wheel diagram groups these different propositions into three major categories:

- **strategic choices:** shared awareness of the most significant risks, constant attention to the three pillars of industrial safety, and finding the right balance between rule-based safety and managed safety,
- **the mobilisation of all actors,** with a focus on the leadership displayed by management and on employee involvement,
- **two groups of key processes** to foster a questioning attitude and a culture of transparency.

Within each organisation, the attributes which constitute the strong points and can serve as reference points, and the weak points that should be placed at the centre of the change process may be discussed, taking into account the specific characteristics of the organisation.

If you'd like to know more, the *Cahier de la Sécurité Industrielle* "Culture de sécurité : comprendre pour agir" is available on our website www.icsi-eu.org



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The essentials of safety culture

Understanding what safety culture is

The safety culture is a set of ways of doing and thinking that is widely shared by the employees of an organisation when it comes to controlling the most significant risks associated with its activities:

- long-lasting changes to safety behaviours cannot be made without shifting employees' perception of safety and its importance,
- the ways of thinking (mindset) cannot be changed unless the concrete signs given by the chain of command evolve.

The safety culture reflects the importance the organisational culture grants to safety in all decisions, all departments, all occupations, and at all levels of management.

Sharing a vision of the most significant risks

A safety culture approach must target the most serious risks as a priority, i.e. those that jeopardise the survival of the organisation. This approach is more likely to be consensual, to rally all actors, and it can have an effect on the less serious risks – whereas the reverse is not true.

The most significant risks can vary depending on the activity, the site, the occupation, but they must be known and shared by all of the actors in the organisation.

Consideration of the most significant risks should include those that threaten internal employees, contractors, customers, local residents, the environment, the facilities, and the continuity of operations.

Improving safety performance thanks to 3 pillars

Improving the safety culture requires an integrated approach to safety through coherent actions in three areas: **technical aspects, safety management, and human and organisational factors**. The "safety culture" approach cannot make up for insufficient action in these three areas.

Safety approaches must include a **greater integration** of human and organisational factors.

Assessing the safety culture, analysing the current situation

The assessment is a crucial starting point for any organisation wishing to change their safety culture. It looks at both the practices of the different categories of actors and at their perceptions of safety management. **The more this assessment is shared by all stakeholders, the higher the chances of mobilising them later on.**

The assessment is not an objective in itself. It is best to avoid embarking on this type of undertaking if the organisation is not ready to collectively face and deal with the (often deep-rooted!) problems which the assessment reveals.

Finding the right balance between rule-based and managed safety

There is no "best" safety culture *per se*; rather, there are safety cultures that are more or less suited to the environment in which the organisation is embedded. Rather than importing models that were developed for other contexts, each entity must make strategic choices in order to strive to be exemplary in managing their own specific constraints.

Increasing managed safety – as a complement to rule-based safety, which is always necessary – is an often under-exploited avenue for progress. To do so, the organisation will need to invest in the skills of its workers – particularly decision-making skills –, give front-line managers some free rein, and encourage debate between professionals as well as group discussions about operational experience feedback.

Involving management and sharp-end workers

For most companies that are advanced in the area of safety, **the way forward lies in shifting from a bureaucratic safety culture to an integrated safety culture.** This requires both taking into account what experts and management anticipate as risky situations and listening to what sharp-end workers have to say about the reality of operations.

An integrated safety culture requires **strong leadership from management, increased involvement on the part of employees and their safety representatives, a redefinition of the role of HSE experts, and fluid interfaces between departments and with contractor companies.**

Targeting 7 attributes of an integrated safety culture

The organisational culture characteristics which are favourable to taking into account safety are known and grouped into seven major attributes. To steer an organisation towards an integrated safety culture, the following must be combined: a strategic approach, a willingness to mobilise all actors, and a small number of key processes on which to work.

Improving safety benefits the entire organisation

The safety culture approach proposes to improve safety performance by **working on the underpinnings of the way the organisation operates.**

From this perspective, safety is a **strategic lever for improving the company's overall performance.**

Because it can be a consensual subject, prevention of the most significant risks is a good entry point for working on the organisation. Any progress made will yield results not just in the area of safety, but potentially in all other areas.

Changing the safety culture is a long-term project

Changing the safety culture requires a **real plan for change**, with a wide consensus on the initial state of the safety culture and a shared vision of the level of safety culture sought for the future.

The change in culture is not restricted to safety only; **it must be based on deep transformations** of the different aspects of the organisation and of the management style.

Changing the safety culture **takes time**. Improving safety performance is an ongoing process which requires an iterative approach and unwavering commitment from all concerned.