

# Organisational culture and safety outcomes

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The culture of any organisation is influenced both by internal and external factors. External -The national culture within which the organisation operates; the industrial culture – that is the culture that prevails within that particular industry and Internal factors such as the functional and professional culture within the organisation and the ethnic and diversity make-up of the workforce (based on Frost 2000). The culture is experienced within organisations as a set of social norms and responses that help people make sense of the complexity of interactions but also condition peoples' behaviours (Kroeber and Kluckholm (1952); Rodrigues (1996). Indeed Hofstede extended this to culture as 'collective mental programming'. Business culture is often seen as a sub-set of organisational culture – explaining somewhat the experience that organisations can have sub-sets of culture within them which are defined as 'the way we do things around here'. These are impacted by societal, task and organisational culture (Morden 1995).

## **External factors affecting Organisational Culture and therefore safety culture:**

### 1) National cultural impact:

How do National Cultural characteristics impact on the internal safety culture of an organisation?

If we consider the work of Hofstede (1980) in which he describes 6 dimensions that affect national culture as:

- Power distance - the degree to which a nation minimises the inequalities across society
- Individualism versus collectivism - the level of interdependence in the society
- Masculinity vs femininity - masculinity focuses on achievement and success and femininity on caring for others
- Uncertainty Avoidance - how the society deals with the unknown
- Long-Term Orientation - the degree to which the society links traditions of its past in dealing with challenges for its future
- Indulgence vs restraint - the degree to which small children are socialised to control their impulses and desires

The UK scores as shown on the graph below (each score out of 100)

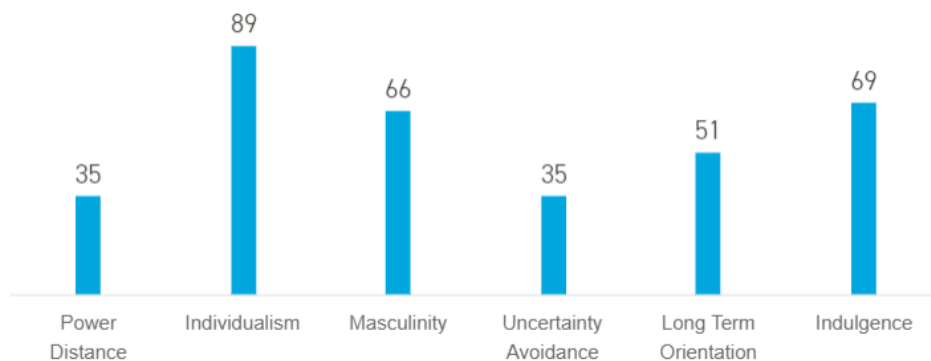


Figure 1

What does that tell us about our national culture?

A high Power-Distance score shows a high preference for a great deal of delegation, flatter organisational structures and a focus on personal responsibility and accountability. If we relate this to Network Rail as an organisation it has traditionally been a strongly hierarchical organisation with complex structures and processes which limit the ability for individuals to have autonomy and personal responsibility. The recent drive to move towards greater devolution to the local business units (routes) will support a greater alignment with the national culture in this dimension.

The high individualism score shows a strong focus on working as an individual rather than as a team and will drive motivation based on individual performance. Our current structure, in particular the individual performance related pay, supports this dimension. However it is at odds with one of our values, collaboration. Similarly it may drive some of the reduced sharing of knowledge and improvement across business units - 'it is wasn't developed here....'

The high masculinity score shows a stronger focus on a decision-making style that is fact based and 'aggressive' rather than feminine, which is more consultative. This is not unexpected in a highly engineering based organisation but given the low level of females in Network Rail it may be emphasised beyond national levels. Within a safety field it, alongside a hierarchical structure, can limit the degree of challenge and questioning that is needed to ensure good risk-based decisions.

Uncertainty avoidance is about activities and behaviours to reduce risk – low levels show more willingness to accept risks and change, which can be entrepreneurial, but also reduces willingness to do detailed planning. Nationally, the UK is low on this dimension, showing a strong willingness to take risks and make it up as they go along. It will also drive shorter term, less detailed planning. Within Network Rail we are continuously driving longer-term planning and less short term change as a safer way of working but there is a culture that is strong on dealing with crisis.

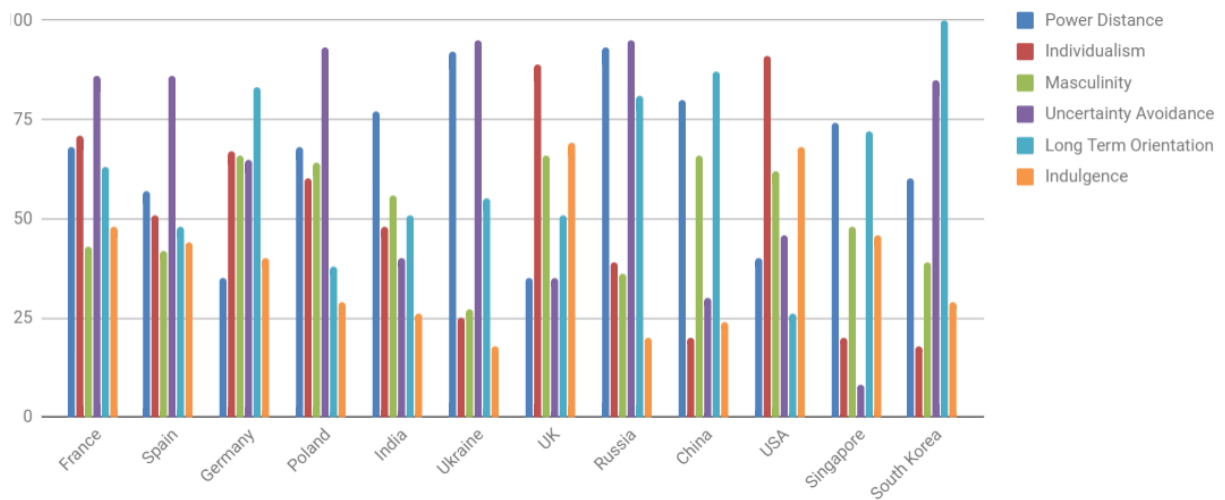
Long-term orientation is about how short-term are decisions - in the UK this has no strong drive on this dimension, but given the low score on uncertainty avoidance it is likely to be experienced as shorter term than the score alone suggests. This is particularly important in certain areas of risk management- ie those where investments will require strategic and long-term appraisal are less likely to happen. If you combine this with political drivers of a maximum of a 5 year tender and our 5 year control periods, shorter-term planning is a stronger fit.

The Indulgence score for the UK shows a national culture that is happy to follow impulses and immediate gratification. When put in a risk context this may explain some of the behaviours around the immediate reward of quick job completion compared with the longer term reward of accident avoidance.



Figure 2

Figure 3



Uncertainty Avoidance World map

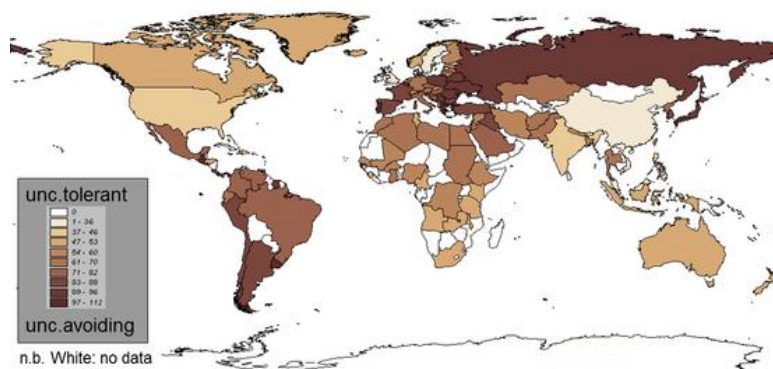


Figure 4

As world travel and integration has increased, the cultural diversity in large organisations has also changed. Large national organisations such as Network Rail must understand their cultural diversity and the potential impact this will have on how people work and respond. As you can see from figure 3 and 4 above different nations have very different cultures. In working across various European and national cultures it is clear that national culture impacts on how staff working in their railways behave. The attitude to risk varies considerable nationally and you only have to look at the tolerance of risk in films about travel in India and compare that to public risk tolerance in Japan to see cultural impact in safety in the railway. Thus, dependent on the national make up of working groups, different risks may be tolerated or avoided. This can be overcome by paying attention to cultural diversity and making changes to regular working groups.

## 2) Regulatory impact

The role of the National Standards Authorities (NSAs) are also instrumental in the foci of safety in national Railway Undertakings. The NSAs will also be affected by national culture as well as their own organisational culture and they similarly need to manage their internal culture and interfaces. The interface of the cultures between these regulatory bodies and the RUs will be key to decisions on where effort is placed around safety. Public pressure will be a key part in this. When there has been a considerable time since a significant train accident not only the delivery organisations can become complacent to safety risk but also the regulatory bodies. Public pressure is usually driven by current pain and if this is around train performance rather than safety there is a risk that NSAs and other political bodies will focus on this, potentially to the detriment of safety. Thus safety success can lead to a lower focus on safety risk. To minimise this organisations need to clearly understand the deep link between performance and safety and the key factors that are common.

## 3) Industry impact:

Are we an Infrastructure management organisation, a service provider, an engineering design organisation, a maintenance organisation or something different? The answer to that question will determine the industry impact on the organisational culture. It will impact on the attention paid to design, customers and how different parts of the organisation work together or in isolation, and will explain the potential for sub-cultures within one organisation.

### **Internal factors affecting culture:**

Organisations are showing a greater understanding of the need to manage organisational design and development as ways to improve overall performance and delivery.

Organisational development is a process of planned, systemic over-arching change designed to improve effectiveness. As such it includes interventions for processes, structure and culture.

*Organisational design* involves aligning the structure of the organisation with its objectives. This design requires an understanding of the imperatives for any change and the environment in which the organisation is working (much of what has been discussed previously). It needs an understanding of how the organisation works currently, what it must deliver, how the work flows, what people are responsible for including all business processes and activity and resource requirements. As technology in the rail industry becomes more fast paced this understanding needs to be dynamic and allow for testing of change. It also requires systemic planning of change to transition from old to new structures and monitoring this effectiveness. This description makes it clear that to manage both safely and efficiently, organisations need to plan future structures based on future need and design and to have a robust change management system to allow this to work

well and safely. Within Network Rail there has been significant work to understand and manage the process for safety within organisational design change and to plan for what structure will be efficient and safe in the future, culminating in a standard to control organisational design for safety. Greater devolution creates greater autonomy at local level and greater responsiveness to local need but on a safety level the clarity of what can be local and what needs to be national is vital, to ensure that contractor staff who work cross-route are not confused or safety compromised by local variation. New organisational structures have also been designed to create safety drivers such as making stronger management links between safety of the workforce and that of asset management. Similarly creating a more senior/influential post for safety in each route was an organisational design to transform safety change in all route business activities.

The other areas of organisational development, processes and culture are hugely driven by organisational behaviour, usually exposed by a value and behaviour statement and by how people are treated within the organisation based on human resource development.

Edgar Shein (1980) in his descriptions of organisational culture suggests that in reality it is far more than just 'what we do around here'. Instead he describes it at 3 levels

- 1) Artifacts - 'what we do around here'- these can be affected by positive and negative reinforcement
- 2) Exposed Beliefs and Values - these are the obvious show of what we think of as our culture- posters, vision, statements and they may or may not fit behaviours
- 3) Underlying assumptions that actually drive the behaviour- those that are the founders of the company that actually drive behaviour these are generated by leaders.

Shein suggests that starting from a problem it is easier way to work on the large beast that is culture than trying to work on everything at once.

Network Rail made the decision to begin work on organisational development initially through a lens of safety, with our problem statement being to ensure 'Everyone home safe every day':



This vision includes our passengers, the public, our workforce and everyone who comes in contact with our infrastructure.

We are determined that they return to their home, to their friends, family and loved ones and that this happens today, tomorrow, in a year, in 10 years. This can only be achieved by considering our staff, and the travelling public today and of the future. It means we have a responsibility even to those who trespass on our railway to prevent injury and to eradicate suicide. It means we need to consider our line-side neighbours and communities, now and in the future, paying attention to our environmental, sustainability and social responsibilities. It means that 'safe' must include mental health as well as physical health and must be preventative of future issues, thus incorporating how people are treated at all times.

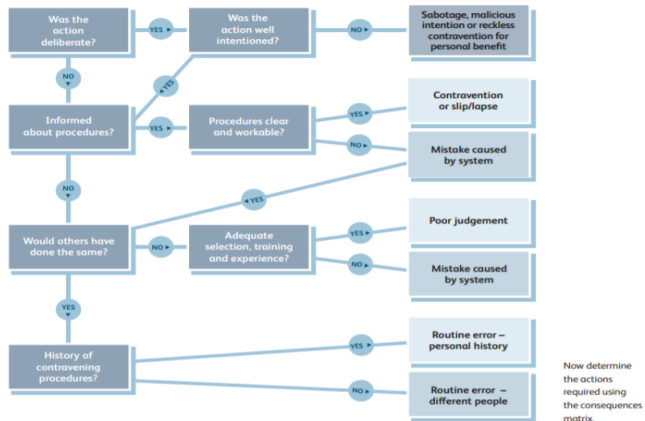
Alongside this vision were many aligned documents and visible statements of the value and beliefs of the organisation around safety used to encourage the take up of the expected behaviours. A few examples of these are shown below:



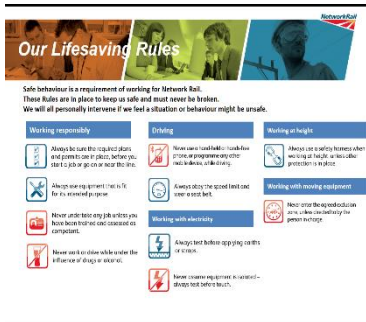
The Vision statement signed by all staff and promoted by the CEO which describes how we will deliver 'Every one home safe every day'

**Establishing a cause**

This chart shows how we assess any breaches of the Rules, establish one of the causes for those breaches and respond fairly.



The fair culture process to support expected behaviours around the life-saving rules. Whilst defining a safety investigation process it was describing the behavioural DNA of our business and the expectations of how we deal with mistakes versus violations



The life-saving rules demonstrated our belief that simplification and risk-based focus was key to safety improvement. The close call logo told of our commitment to speak up about safety and for that to be an expectation of all staff and finally the locally generated safety lens described commitments of 'how' to work together to improve risk management and improve safety.

We recognised very quickly through our measures process, utilising both external independent focus groups and an internally developed safety narrative (which was developed by 1500 internal staff), that indeed as Shein suggested there was a mismatch between the communicated values and beliefs and the actual way people behaved around safety. Key to aligning these was to work on the business assumptions that are the actual drivers of culture. This required a considerable focus on safety leadership behaviour.

Below is the culture change plan for Network rail (Figure 5)

# Organisational Focus

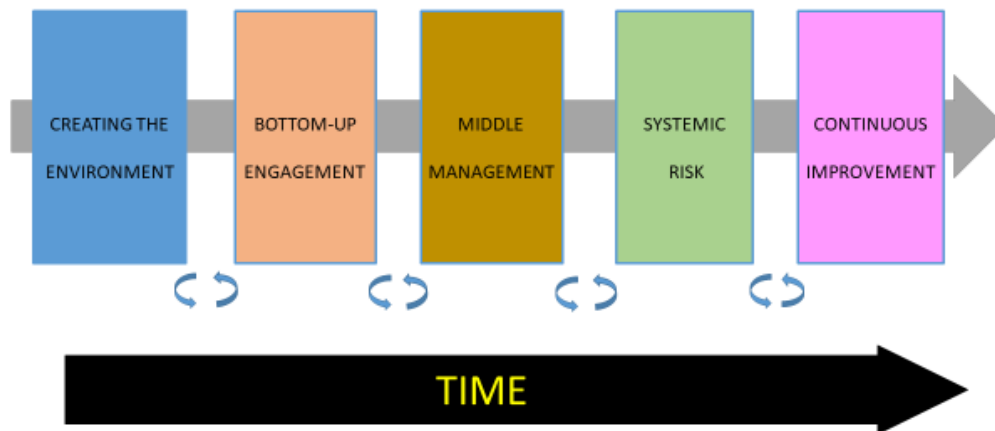


Figure 5

Much work had been done in behavioural safety when the Safety Leadership and Cultural Change journey started in 2011. At this time Network Rail had a culture of blame and under-reporting. It was clear that whilst many good quality initiatives had been delivered for behavioural safety they were not embedding and changing 'what we do around here'.

The design above starts with a focus on creating the environment for change which is all about leadership. 'Safety' leaders must create trust between themselves and their staff. This is through engagement, empowerment, consistency and authenticity.

Engagement was key and the development of safety conversations, as open and honest dialogue, was an early development in Network Rail. There is considerable evidence in the literature that engaged teams are safer teams. This needed to be more than telling or demonstrating good conversations and included process change, up-skilling and on-going feedback on quality, not just quantity. The style of these conversations needed to create increased awareness and empowerment in staff so that all staff owned their contribution to safety improvement - this was an important link to the creation of the Close Call system - where staff report issues and are part of the delivery of the solutions. An environment of trust also required leaders to be able to outline safety expectations and to deal fairly and consistently with errors and violations. The leadership and management roles within fair culture safety investigation is fundamental in the experience of leaders' response to safety performance. Leaders were given feedback on their impact on safety through 360 degree appraisal so they could understand how people perceived their authenticity to make safe decisions and this was followed up with coaching development for improvement. This role-modelling was so critical that being able to be a good safety leader was embedded as a key performance review indicator and an essential requisite for promotion.

Middle managers in all large organisations tend to be the block in the flow of messages and in delivery of activity. This is not a reflection on individual capability but more a demonstration of the ability to influence upwards and delegate and empower downwards. For this reason middle management was up-skilled and supported after both front-line and senior leaders had started their behavioural change journey. Middle managers were developed to create vision and support change through creating more effective risk management, holding more effectively to account and to



develop active learning and thus improvement in their staff. This was through developing effective learning events and facilitation skills.

Many safety improvements focus as the highest risk areas - front-line staff behaviours. Insufficient attention is paid to the impact of behaviours in those who are responsible for the earlier safety barriers (Swiss-cheese model). To embed the foundations for safety it was key to look at creating processes, system, designs and strategies that would drive the desired culture and not the current culture. Working with the behaviour in those who design for safety in the future, on the culture in different change programmes; looking at creating longer term planning and reinforcing these behaviours within reward systems was vital to long-term sustainable change. This stage of the development of a more mature safety culture required an understanding in all staff of how our expected behaviours create improvements across many developmental areas such as health and well-being, security, engagement, performance as well as safety. This is explained more fully in the section on Figure 6 below.

Finally we needed to create a desire for continuous improvement on culture. Changes in social, economic and political environments for the business, eg with Brexit, will affect how we operate and will need modification of our culture change programme. but this needs to be a controlled and planned rather than a reactive activity. Similarly our recent change in CEO will change some of our areas of focus but safety maturation must and will continue. Continuous improvement requires a level of proactive learning that needs the development of skills in optioneering and entrepreneurial thinking in our leaders and this we are developing through new leadership training and though an increased focus on research and development. The internal LEAN programme has linked this continuous improvement with increased efficiency.

Figure 6



The section before describes the Organisational focus of change over time within the safety culture maturation programme in Network Rail. Figure 6 demonstrates the individual behaviour change journey. All staff need to buy into the fair culture process, which describes our DNA - 'how we do things around here'. This includes understanding your accountabilities and responsibilities (which are being clarified through a role-based capability programme) the expectations of you and how you



will be treated if you meet or do not meet these expectations (error vs violation). It creates a consistency and fairness of approach.

All staff need to have good risk management behaviours. They need to be consciously aware of the risks around them, perceiving things to which they have become potentially complacent. This is done through behaviours of curiosity and questioning and a constant unease.

Once people know what is expected of them and are consciously aware and are managing the risk around them then they will understand why rules are in place and rather than blindly following them or following them from fear of reprisals, they will be willingly compliant - 'it's a good rule – why wouldn't I follow it?' By creating willing compliance rather than forced compliance you will create ownership of the rules which leads to individuals speaking up and challenging rules which are either no longer valid or where changes have made compliance against them difficult or even inappropriate. This creates a reporting culture. Instrumental to the effectiveness of this stage is how responsive the organisation can be to changing rules.

It is important once reporting is established that the reporter is encouraged to be part of the solution - that they help create the safety improvement. Network Rail has utilised bowties, safety hours and local workshops for redesign and improvement (eg Front-line safety challenges) to make sure solutions happen at the level of the issue.

This style of change throughout the business improves engagement as people are increasingly involved in improving their local activity. It also creates capacity and efficiency. It is however key to work on this alongside simplifying processes of change to standards, safety guidance and rules so that when we identify necessary changes they do not take too long

Finally individuals need to be prepared to spot and make safety step changes when possible. Innovation is key to Network Rail facing our future challenges. However much innovation presently is siloed and often innovative ideas in one area can have a negative even detrimental affect elsewhere. For that reason people need to go through the described development of safety culture maturity before transformational change is really viable.

In figure 6 we demonstrate how these cultural change themes, Fair culture, Risk Perception culture, reporting culture, willingly compliant culture, learning culture, involved culture and innovative culture deliver on our corporate behaviours of challenge , collaboration, accountability and being customer driven. The outside circle shows that the behaviours described not only deliver on a safety culture maturity but show how by using this as the lens for improvement it will deliver an organisational culture improvement through translating the behavioural change into other areas.