

Safety Culture

HU training June 2017 – Kim Drews



- To make sure that we actually live the Safety Management System, and achieve a higher level of safety, because:
 - We don't want to harm our families, friends, our selves or the public
 - Accidents are expensive
 - Compostella € 42,9 millions to victims and families + direct costs for damages, not operating the line etc.
 - Amtrack 2015 crash (US). \$265 millions for victims and families + direct costs
 - Safety can improve your business efficiency, and working on culture doesn't need to be expensive
 - Alcoa: vision of zero accidents doubled profit in a year http://www.huffingtonpost.com/charles-duhigg/the-power-of-habit_b_1304550.html
 - Liability, we don't want to go to jail
 - Compostella – driver and safety official charged <https://www.thelocal.es/20170314/spain-ex-rail-boss-charged-over-crash-that-killed-80>
 - Amtrack – driver charged with manslaughter <http://www.reuters.com/article/us-usa-train-derailment-idUSKBN18829W>
 - ViaReggio: 22 sentenced provisionally – several executives <https://www.yahoo.com/news/ex-italy-rail-bosses-sentenced-over-2009-disaster-151948115.html>

New European legislation - Recast Railway Safety Directive (2016/798)

Recital 10

“Member States should promote a culture of mutual trust, confidence and learning in which the staff of railway undertakings and infrastructure managers are encouraged to contribute to the development of safety while confidentiality is ensured.”

Article 9 (2)

“.....Through the safety management system, infrastructure managers and railway undertakings shall promote a culture of mutual trust, confidence and learning in which staff are encouraged to contribute to the development of safety while ensuring confidentiality.”

Article 29 (2)

“The Agency shall evaluate the development of a safety culture including occurrence reporting. It shall submit to the Commission, by June 2024, a report containing, where appropriate, improvements to be made to the system. The Commission shall take appropriate measures on the basis of these recommendations and shall propose, if necessary, amendments to this Directive.”

** 8 years after coming into force

ERA – Safety Culture

Safety culture refers to the interaction between the requirements of the Safety Management System, how people make sense of them, based on their attitudes, values and beliefs and what they actually do, as seen in decisions and behaviours.

A positive safety culture is characterised by a collective commitment by leaders and individuals to always act safely when confronted with competing goals



What is just culture?

- Just culture is a very important element of safety culture

Definition

- A culture in which front-line operators and others are not punished for actions, omissions or decisions taken by them which are commensurate with their experience and training, but where gross negligence, willfull violations and destructive acts are not tolerated.

(Definition of just culture: REGULATION (EU) No 376/2014, art. 2k)

- Why? Because we want to avoid:

Can you imagine a LEAN production where workers choose to make a bad quality if they are afraid to be blamed or punished for creating a bottleneck? No, they will report!

Safety is no different – we need to learn where to improve our business!



Who influences SC and JC in the Railway system?

Behaviour at each level influences whether the total system outcome is safe or not

N.G. Leveson / Applied Ergonomics 59 (2017) 581–591

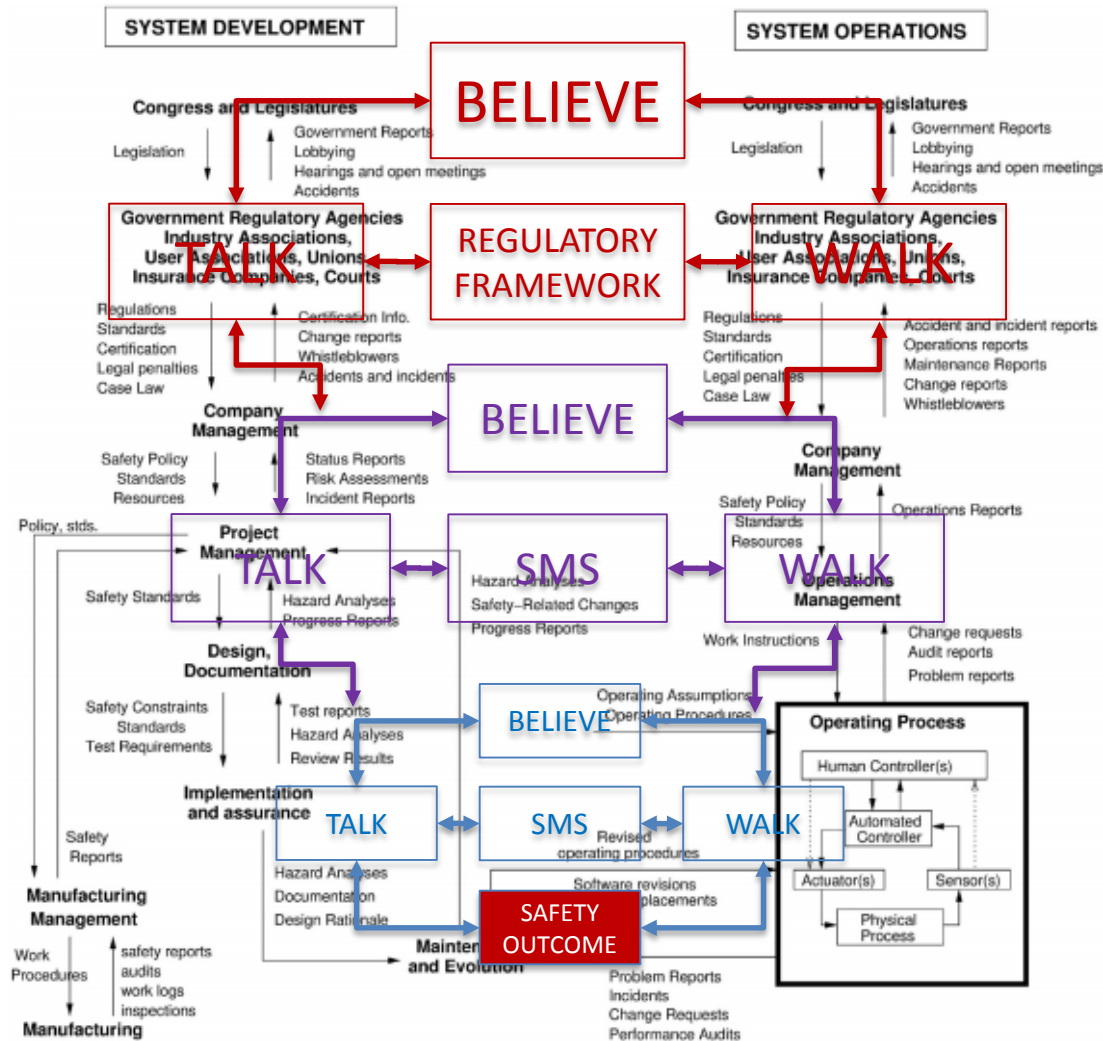


Fig. 7. A generic hierarchical safety control structure.

What do we want to achieve at an operational level?

- Safety shall be recognised as a main driver of the efficiency and reliability of railway services. Safety must not be compromised when different business goals conflict: in our vision statements, targets and indicators, resource allocation and all aspects of daily operations.
- Organisations should promote safety, reporting and just culture principles amongst management and employees and with other parties, including their contractors, suppliers and service providers. All should actively foster mutual respect, support and cooperation to build trust across the organisations.
- For staff at all levels, safety is an individual responsibility commensurate with the training, experience and professional standards that fit their role or function. Organisations are responsible for encouraging positive safety behaviours and for providing the appropriate environment, tools, training and procedures to their staff.
- It is acknowledged that, in an operational railway environment, individuals, despite their training, expertise, experience, abilities and good will, may be faced with situations where the limits of human performance combined with unwanted and unpredictable systemic influences may lead to an undesirable outcome.
- Investigation and analysis of occurrences should focus on system performance and contributing factors first and not on apportioning blame, individual responsibility, or the outcome of a specific event. This principle applies except in cases of gross negligence, wilful violations and destructive acts which seriously compromise the level of railway safety.
- Positive safety behaviour and actions should be captured and shared in order to demonstrate that the organisation values the continued improvement of safety.
- The maturity of the safety culture within the organisation should be regularly reviewed and benchmarked with other organisations, within the railway industry or with other high risk industries.
- Organisations, in cooperation with staff, should define how they intend to continuously develop, promote and assess the implementation and maturity of safety culture principles and practices.

The above are statements summarising indicators of a positive safety culture

What will ERA do to fit the system?

- Some objectives for the ERA safety culture programme
 - Raising awareness of SC at EU railway authorities, operational companies and at the Agency
 - Through communication and materials, by sharing knowledge and expertise, through participation in relevant events
 - Improve SC throughout the Union Rail system
 - Through ERA activities and products, through and with authorities, at operational level and by clarifying roles and responsibilities in the railway system
 - Working on Just culture with national prosecutors and ministries and railway experts
 - Evaluating the Union rail safety culture and make recommendations (2024)

Safety culture – maintenance example

- **Potters Bar accident UK May 2002**

Train enters point at high speed

- First part of train goes in right direction, point switches under the train, second part goes in the wrong direction

- 7 dead
- 76 injured

Film and questions about what happened



Safety culture - maintenance example

- Discussion – what do you think of the safety culture?
 - Communication
 - The slip and lack of training of the contractors staff
 - Occurrence reporting
 - The design of the points
 - Etc.
-
- Who is liable here?
 - 9 years later – in May 2011, Network Rail was fined £ 3 million for safety failings



Making the railway system work better for society.

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