# Evaluate to Learn and Improve: A Safety Culture Model for European Railways

Grégory Rolina and Bart Accou IRSC 2018: Organisational Culture that Values Safety Dublin, 22<sup>nd</sup> October 2018



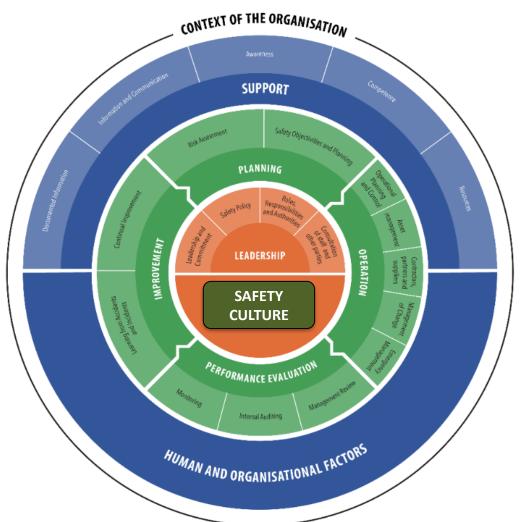






EU secondary legislation on SMS requirements related to railway undertakings and infrastructure managers (2018/762)

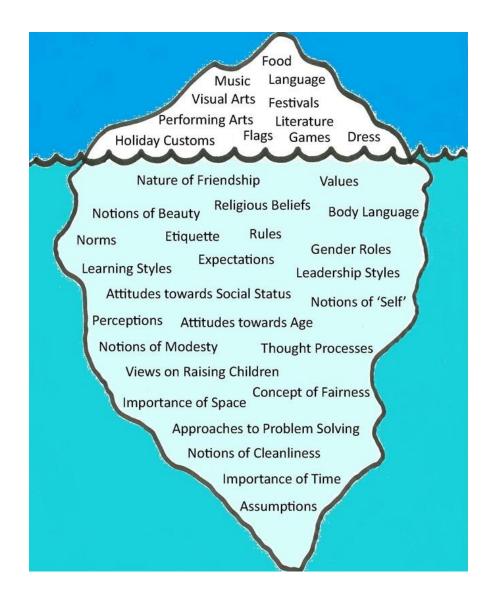
"The organisation shall provide a strategy to continually improve its safety culture (...)"





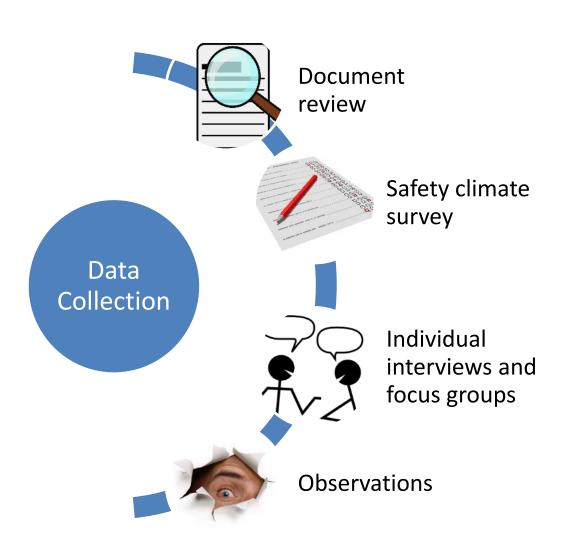
## **Evaluate Safety Culture**

- Two types of evaluation...
  - Safety culture assessments
  - Regulatory oversight of safety culture
- ... that lead to a safety culture
   picture: an insight, at a given
   moment in time, into the drivers
   that shape organisational behaviour
   patterns, safety consciousness and
   safety performance...
- ... not a numerical dashboard!





## Safety Culture Assessment





- open mind
- questioning attitude
- detailed notes
- balanced approach
- stick to the facts
- consider context



## Regulatory Oversight of Safety Culture

- Being an inspector, can I access safety culture related information?

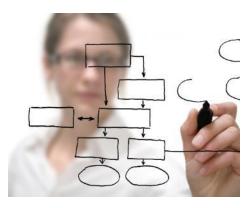


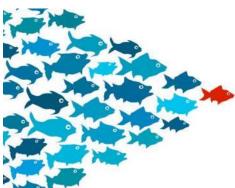
Three pillars of regulatory oversight of safety culture (IAEA TecDoc 1707)



#### **Evaluation Process: Success Factors**

- Project management approach
- Commitment of senior management
- Team with diverse background and experience
- Use of multiple data collection methods
- Dissemination and use of results
- External Communication









# Human and Organisational Factors Network Ad-Hoc Task Force on Railway Safety Culture Assessment

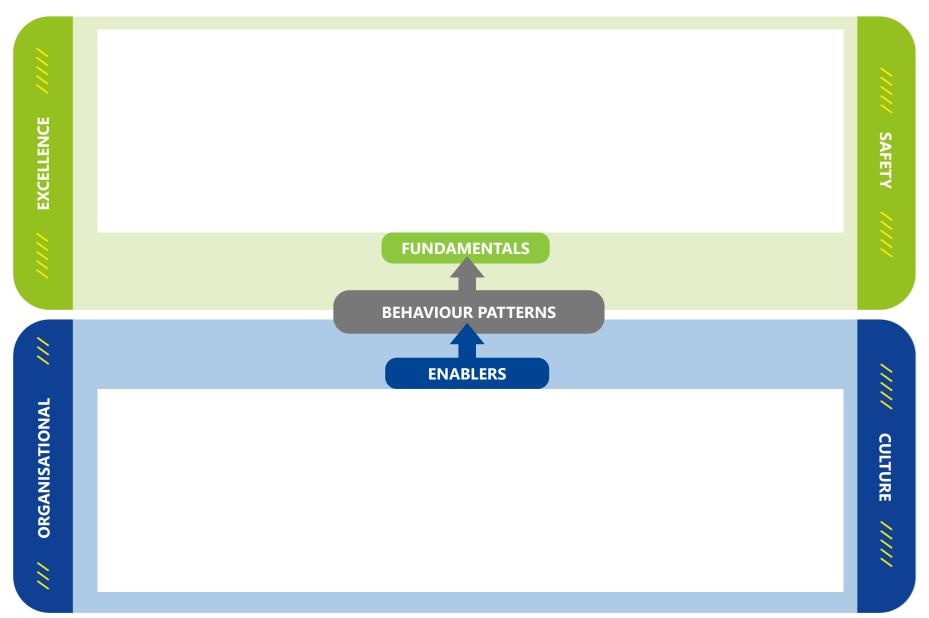


#### Three meetings in 2018: initiation, development, finalisation





# European Railway Safety Culture Model: Components





### Railway Safety Fundamentals: Attributes



The capability to operate safely under unexpected situations, which relies on the competence and flexibility of frontline operators and managers, is recognised and developed.



The organisation recognises that complex technologies and systems can fail in unpredictable ways.



Individuals at all levels are aware of major railway risks and understand their personal contribution to risk management.

**MANAGE MAJOR RAILWAY RIKS WITH ANTICIPATION** AND RESILIENCE





Measures to identify and mitigate organisational silence are implemented.



Routine and abnormal deviations from anticipated performance are recognised, reported and analysed.



Human and organisational factors, including frontline experience, are systematically considered following safety events, deviations, and during design and change.





Collaboration within and across organisational boundaries is nurtured to operate safely.



Safety related feedback is perceived as an opportunity to improve performance and is acted upon.



Individuals at all levels avoid complacency, challenge assumptions and support organisational learning.





The organisation recognises that working conditions, such as time pressure, workload and fatigue influence safe behaviours.



Individuals at all levels are convinced that safety and operations go hand in hand. They demonstrate their commitment to safety through their behaviours and decisions.

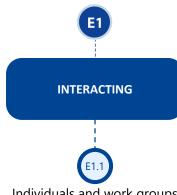


Safety is a primary consideration in the allocation of resources.





#### **Cultural Enablers: Attributes**



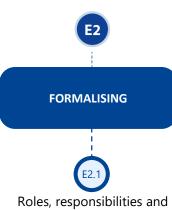
Individuals and work groups coordinate their activities within and across organisational boundaries to support railway safety fundamentals.



Trust, respect and openness permeate the organisation and characterise inter-organisational relationships at all levels. Opposing views are encouraged and considered.



Healthy regulatory relationships exist and ensure that the accountability for safety remains with the operating organisation.



Roles, responsibilities and authorities are understood and accepted.



Processes, from planning to implementation and review, support railway safety fundamentals.



Documentation, rules, procedures and technical solutions support railway safety fundamentals.



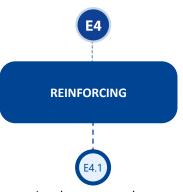
Safety information is openly shared, up, down and across the organisation and with audit and regulatory organisations.



Training maintains a knowledgeable workforce and supports railway safety fundamentals.



Safety leadership skills are systematically developed.



Leaders ensure that incentives, sanctions and rewards reinforce behaviours and outcomes that support railway safety fundamentals.



Leaders exhibit behaviours that set the standard for safety. They are seen in working areas observing, coaching, and reinforcing standards and expectations.

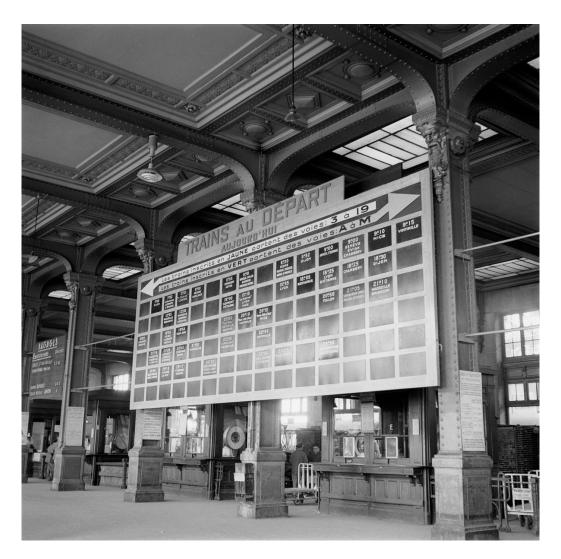


Innovative methods and arrangements are implemented to promote safe behaviours and support railway safety fundamentals.





- Development of draft guidelines and training material
- Pilot (2019)
  - Safety culture
     assessments with
     infrastructure managers
     and railway undertakings
  - Regulatory oversight with national safety authorities
- Revision of model, guidelines and training materiel (2019-2020)





#### **Conclusions**

- Innovative model: distinction of cultural enablers (organisational culture) and railway safety fundamentals (positive railway safety culture)
- A conceptual framework to foster common understanding of safety culture
- A practical tool to support the sector: evaluate to learn and improve
- In line with the **European railway safety culture declaration** signed by more than 60 European leaders





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