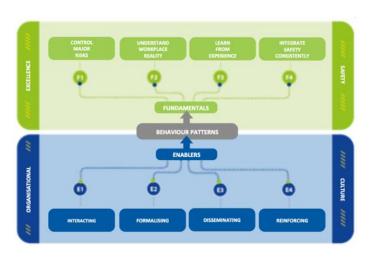
# Introduction to the European Railway Safety Culture Model

Grégory Rolina, Programme Manager 19 May 2020





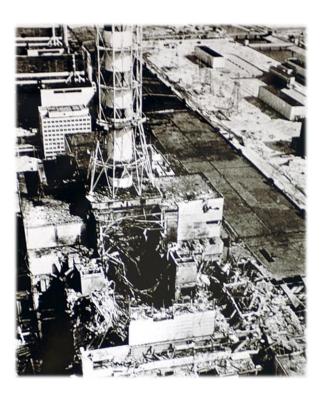




- Background
- Model Specifications
- Design Process
- Model Building Blocks
- The Attributes of a Positive Safety Culture
- Current and Future Developments
- Conclusive Remarks
- Q&A











Chernobyl 1986 Challenger 1986

Clapham Junction 1988





# To an observer B, A\* is a **model** of an object A to the extent that B can use A\* to answer questions that interest him about A

Minsky 1965



- Apply to any type of railway organisation or authority
- Distinguish and articulate two concepts
  - Organisational culture
  - Safety
- Balance between pragmatism and oversimplification



# Design Process Development

COMBOIOS DE PORTUGAL
Human and

































## Three meetings in 2018 to issue a first version of the model









## **Design Process Pilot**

# TRAFICOM

Finnish Transport and Communications Agency

#### Full scale pilot on the EU model

Workshop for Traficom inspectors

#### 3 pilot organisations

- Volunteered to participate
- Different field
- Different size
- Steering groups
- Workshop: all organisations participating

F1.	F2.	F3.	F4.
Ennakoiva turvallisuuden ja	Työpaikan todellisuuden	Jatkuvan oppimisen	Turvallisuuden yhdistämi-
riskien hallinta	ymmärtäminen	edistäminen	nen liiketoimintaan

# **Regulatory Oversight** (FI, IE, CH)











Workshops (IT, EL, ES, NL)



# Model Building Blocks Behaviour Patterns

#### **BEHAVIOUR PATTERNS**

Shared behaviours (what we say and do) encouraged or discouraged, inadvertently or intentionally, by people or systems over time

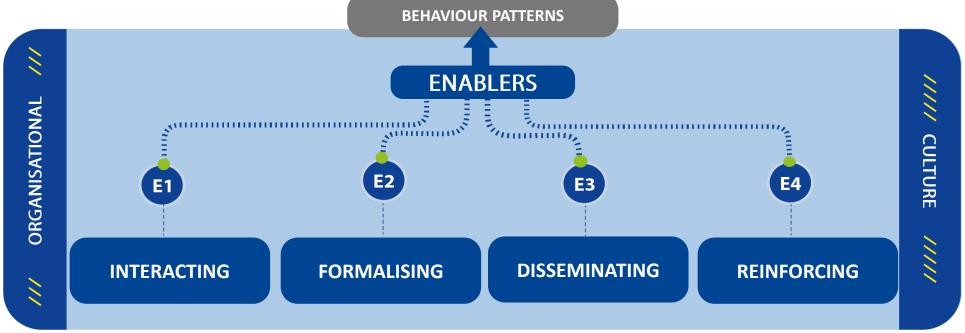
Agnew & Daniels 2010







# Model Building Blocks Cultural Enablers







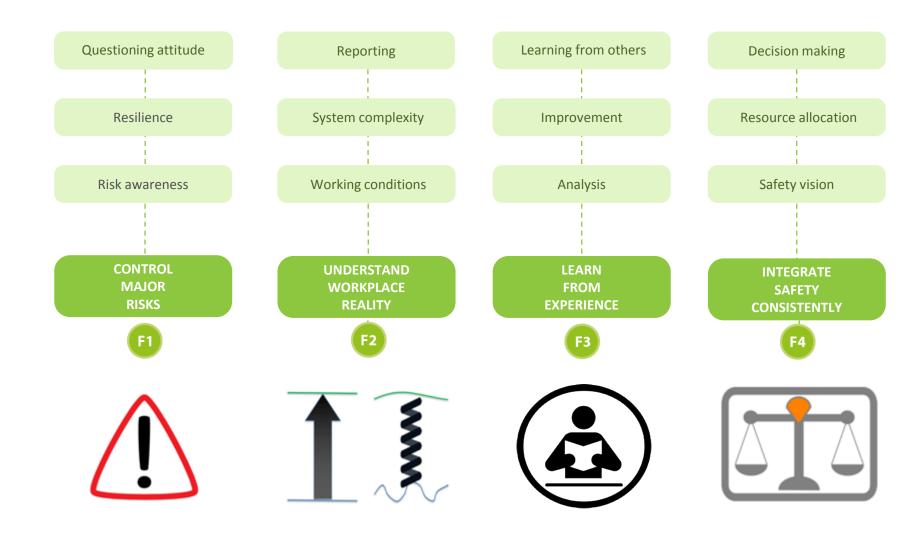




Adapted from Guldenmund (2015, 2018)

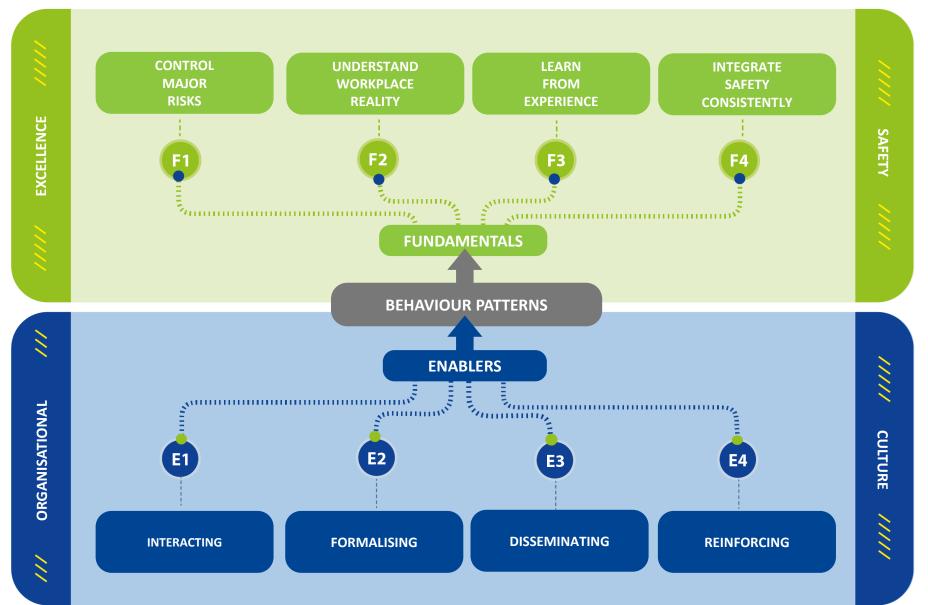


# Model Building Blocks Railway Safety Fundamentals





## **European Railway Safety Culture Model**





# Introduction to the European Railway Safety Culture Model

ELRICHEAN LINION AGENCY FOR MAKEWAYS

### F1.3 Questioning attitude

Individuals at all levels avoid complacency, challenge assumptions, encourage and consider opposing views.

#### F1.2 Resilience

The capability to operate safely under unexpected situations is developed.

#### F1.1 Risk awareness

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

> CONTROL MAJOR RISKS

> > F1

#### F2.3 Reporting

Routine and abnormal deviations are recognised and reported. Measures to identify and mitigate organisational silence are implemented.

#### F2.2 System complexity

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

#### F2.1 Working conditions

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

UNDERSTAND WORKPLACE REALITY

F2

#### F3.3 Learning from others

The organisation actively seeks learning opportunities.

#### F3.2 Improvement

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

#### F3.1 Analysis

Reporting is systematically analysed to identify those factors that allow organisational learning and improvement.

LEARN FROM EXPERIENCE

**F3** 

#### F4.3 Decision making

**Attributes of a Positive Safety Culture (1)** 

Individuals at all levels are convinced that safety and operations go hand in hand.

#### F4.2 Resource allocation

Safety is a primary consideration in the allocation of resources.

#### F4.1 Safety vision

The organisation develops and implements a safety vision to support the achievement of business objectives.

INTEGRATE SAFETY CONSISTENTLY

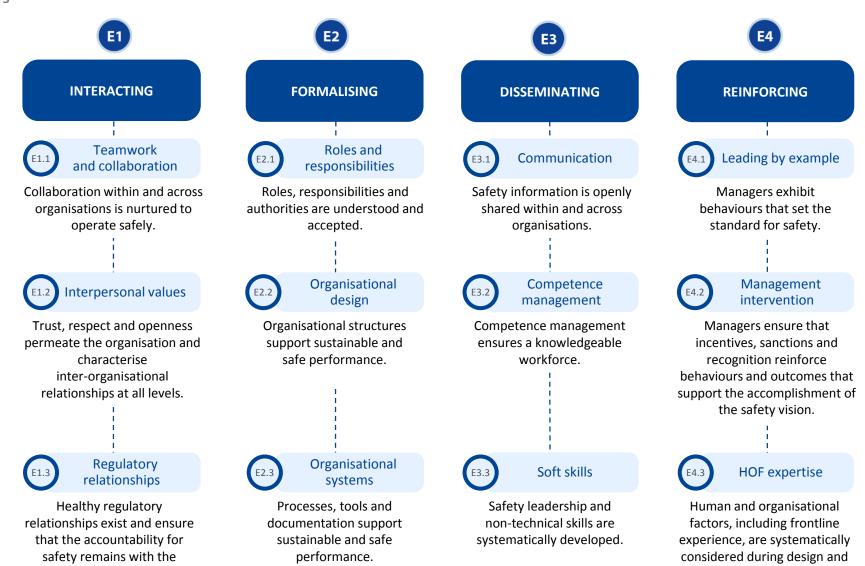
**4** 



operating organisation.

## **Attributes of a Positive Safety Culture (2)**

change.





# Introduction to the European Railway Safety Culture Model Guidance Guidance







Dissemination

## **Current and Future Developments**

- Safety culture assessment
- Cultural change strategy
- Peer review framework
- Regulatory oversight of safety culture
- European rail safety climate survey
- Safety leadership
- Just culture
- Human and organisational factors
- ...



# The European railway safety culture model

- Elaborated and tested with safety experts and rail professionals
- Articulates organisational culture with safety
- Addresses pragmatic company needs – still respects the complexity of culture
- Supports learning, cultural change and improvement strategy

#### **Conclusive Remarks**



Visit our webpages <a href="https://www.era.europa.eu/activities/safety-culture\_en">www.era.europa.eu/activities/safety-culture\_en</a>

Contact us safetyculture@era.europa.eu



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