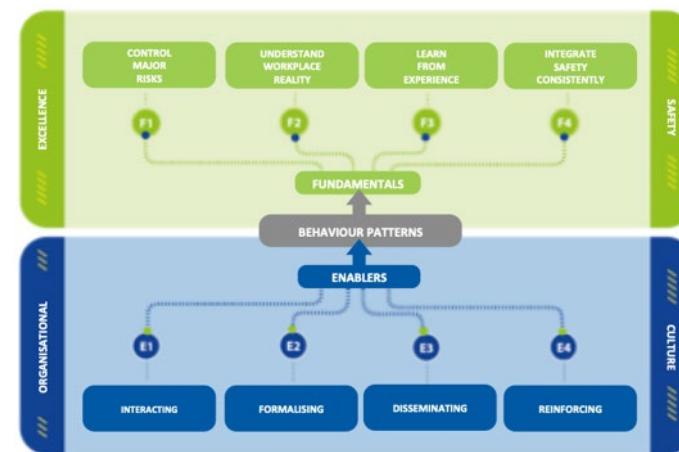


The European Railway Safety Culture Model: Theory and Practice

ERA Just Culture and Safety Culture Activities

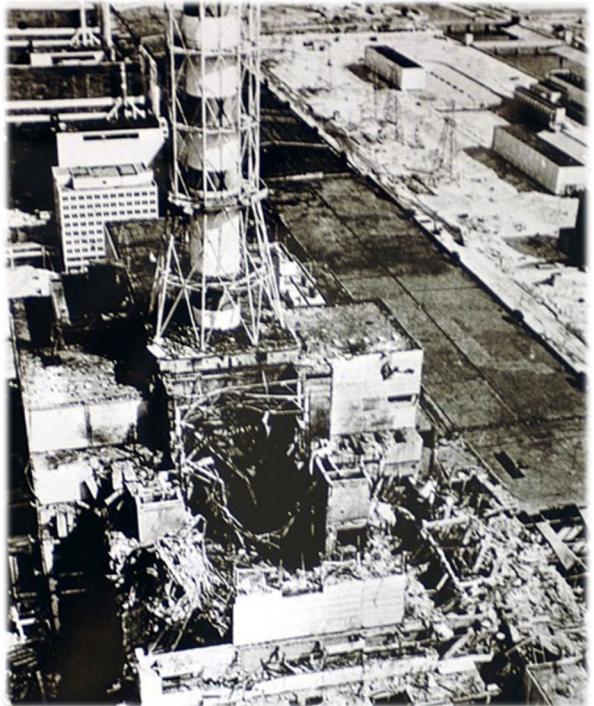
Dr. Grégory Rolina, Programme Manager

ES²-WS1-2020 - 29 October 2020



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

Background



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

Human and
Organisational
Factors
Task Force



COMBOIOS DE PORTUGAL



Eisenbahn-Bundesamt

TRAFFICOM

ÖBB
INFRA

CFL cargo

DUTCH
SAFETY BOARD

ZOS
ŽOS TRNAVA, a.s.

ICSI
Institut pour une culture
de sécurité industrielle

UIC

ORR
OFFICE OF RAIL AND ROAD

dp

SNCF

CRR
AN COMISIÚN UM RIALÁIL IARNRÓID
COMMISSION FOR RAILWAY REGULATION

RSSB

ANSF

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





Workshops (IT, EL, ES, NL)



Safety Culture Assessment (Nordjyske Jernbaner – DK, ADIF – ES)

Design Process Pilot



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. Ennakoiva turvallisuuden ja riskien hallinta	F2. Työpaikan todellisuuden ymmärtäminen	F3. Jatkuvan oppimisen edistäminen	F4. Turvallisuuden yhdistämisen liiketoimintaan

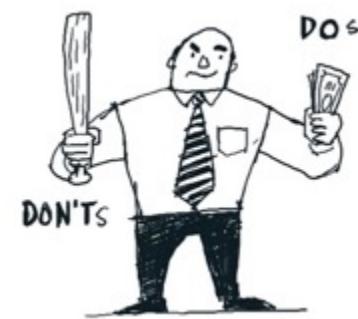
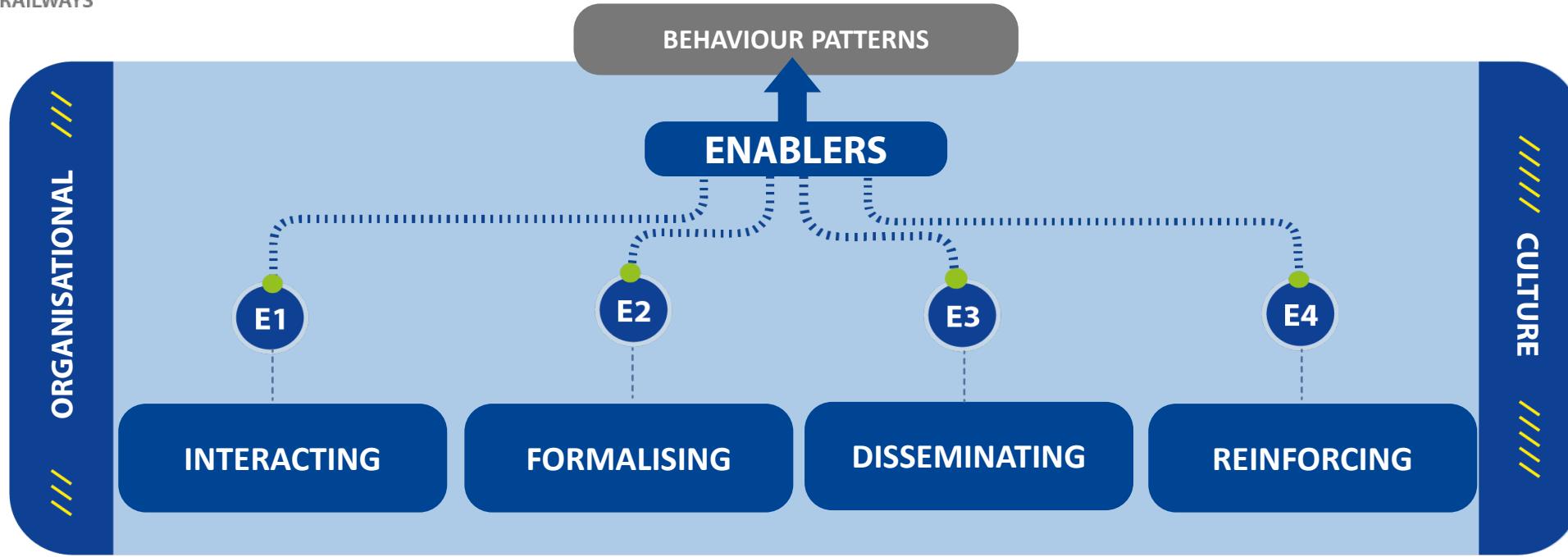
Regulatory Oversight (FI, IE, CH)

BEHAVIOUR PATTERNS

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

Agnew & Daniels 2010

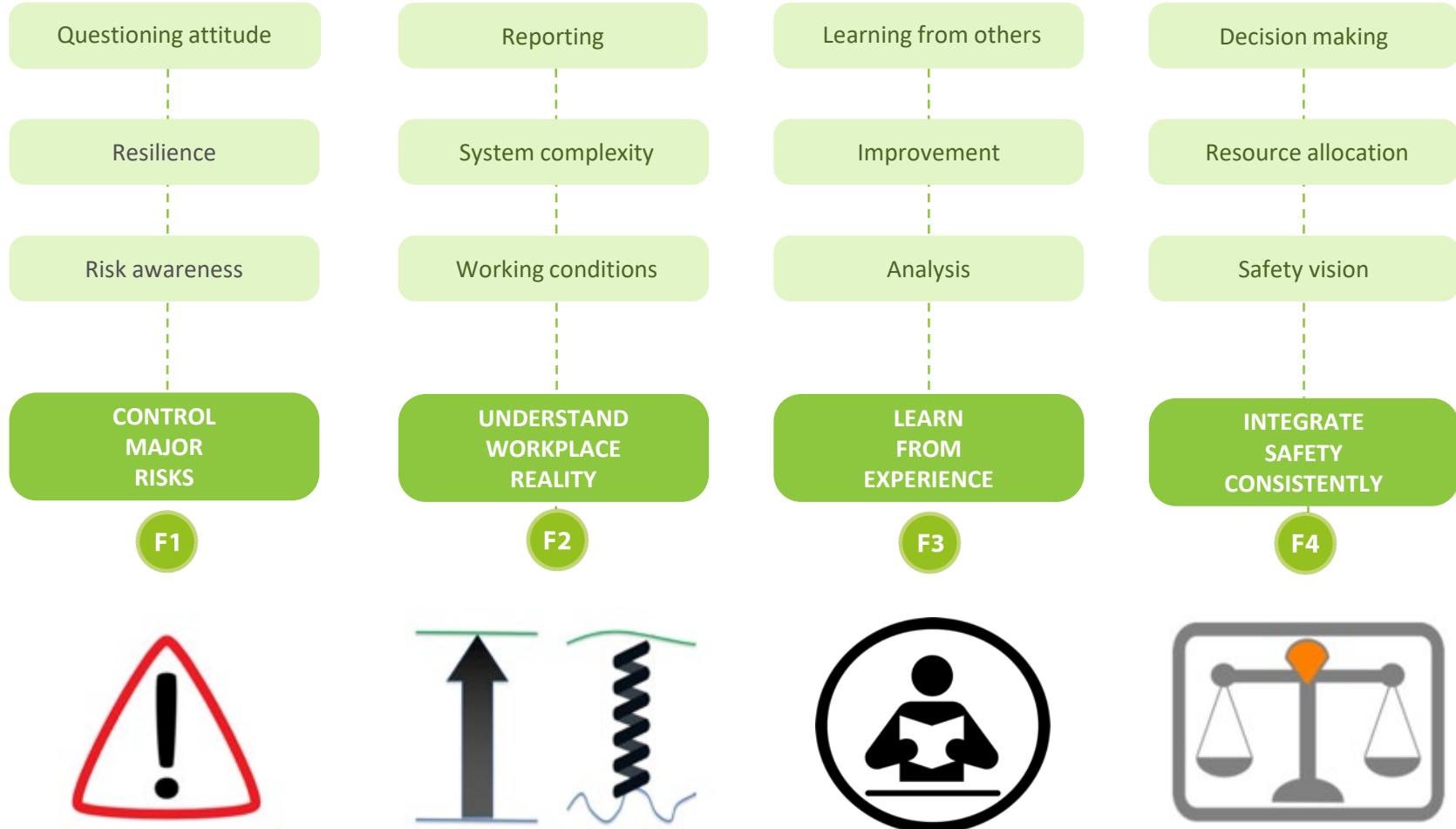




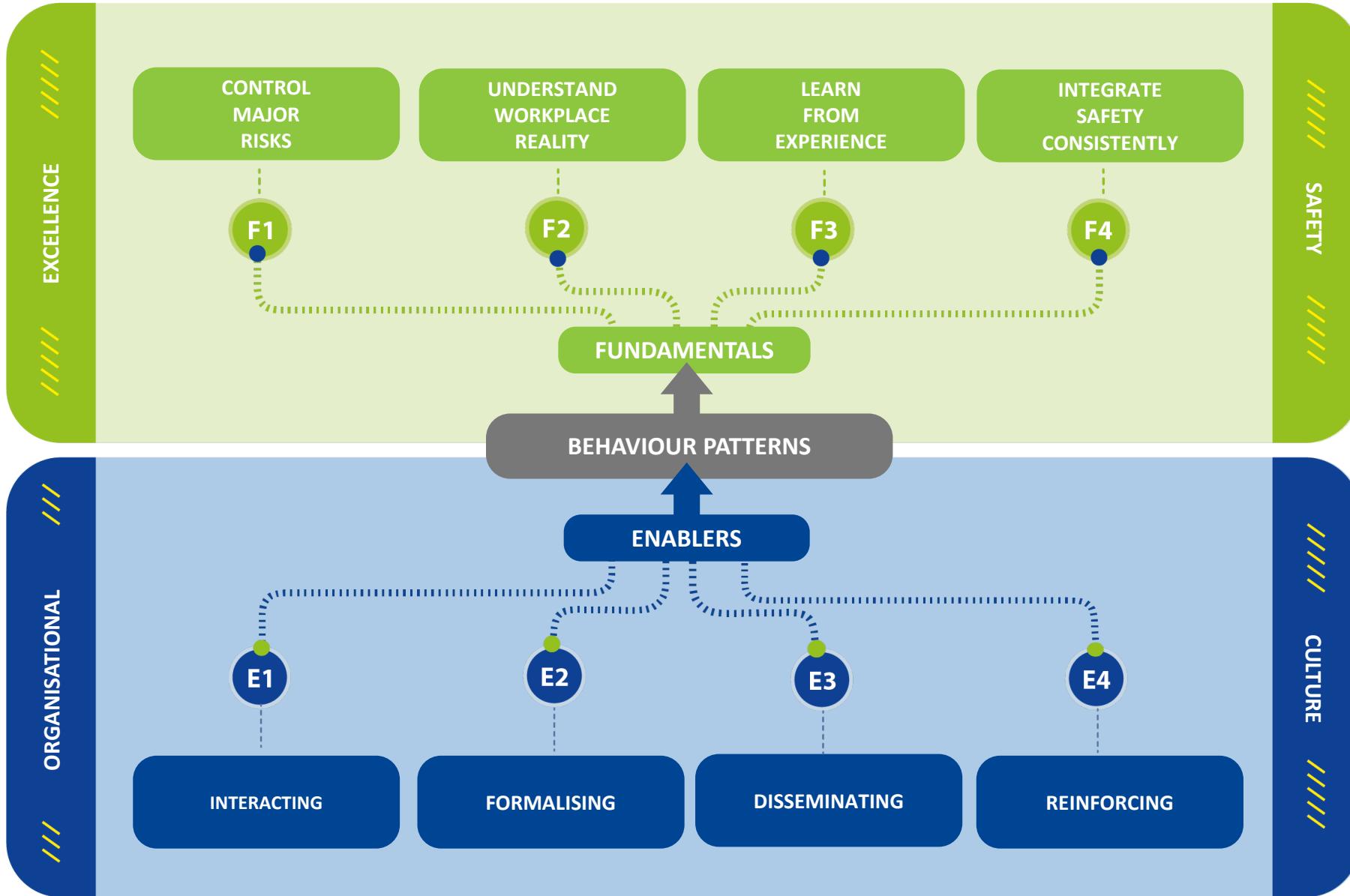
Adapted from Guldenmund (2015, 2018)

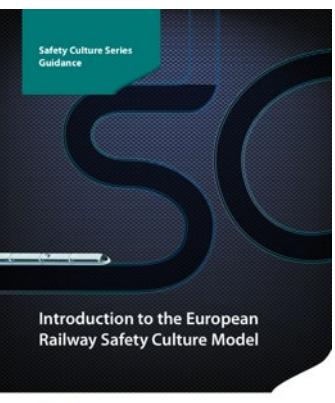
Model Building Blocks

Railway Safety Fundamentals

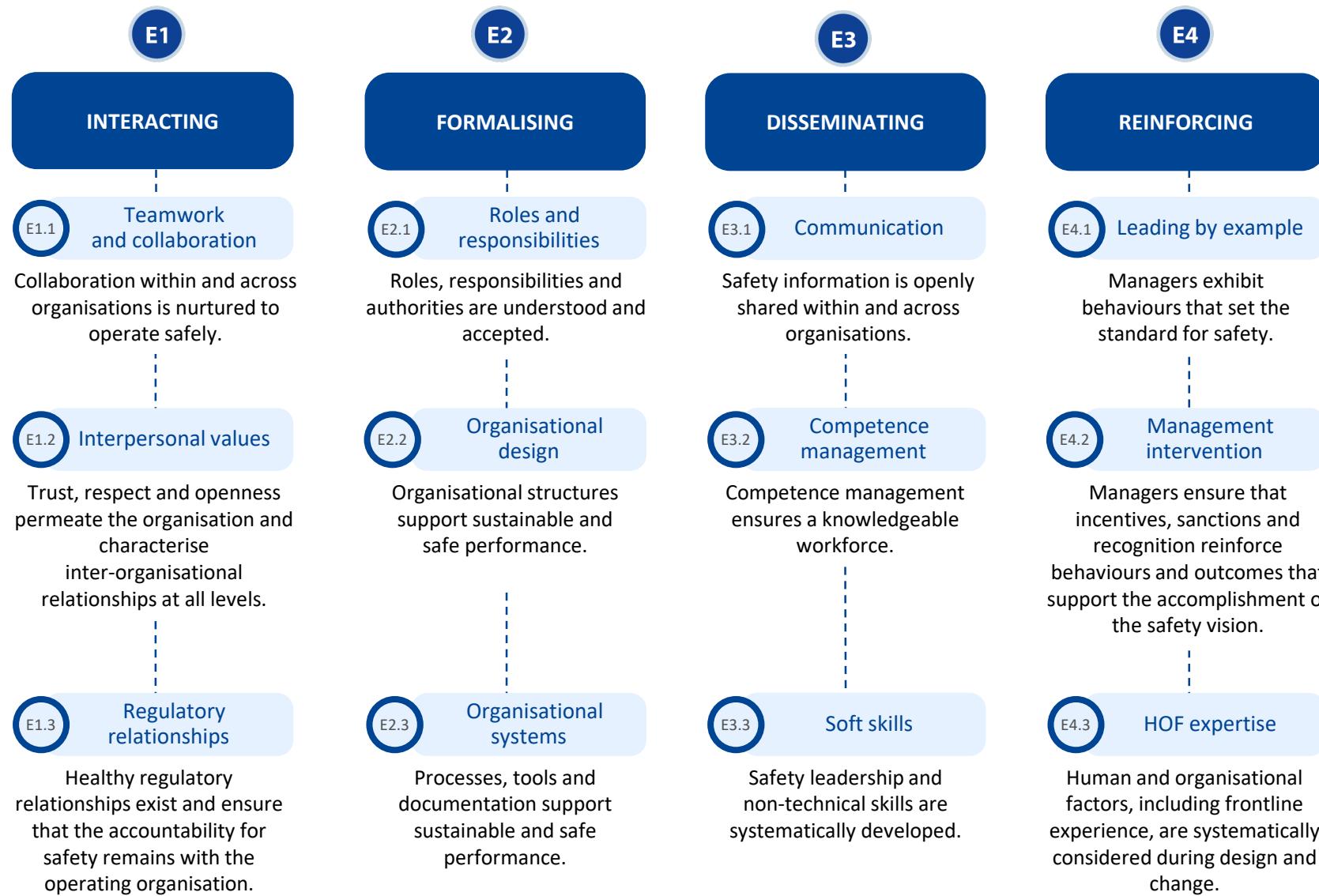


European Railway Safety Culture Model





Attributes of a Positive Safety Culture (2)

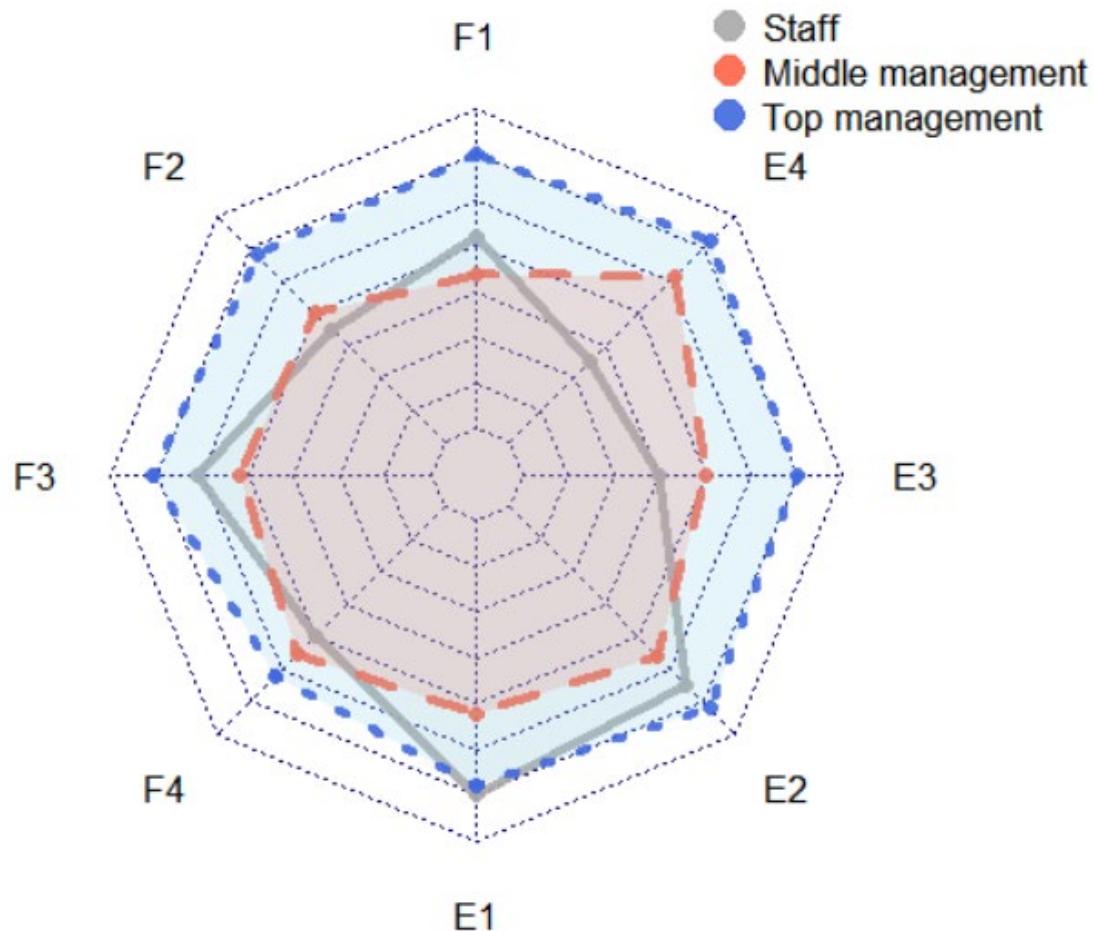


A safety perception survey targeting all European rail professionals to be launched during the European rail of year (2021)



EUSurvey

Example
Visualisation of
aggregated results
(All questions /
Management level)



COMPANY

RU

IM

Manufacturer
Service Provider

AUTHORITY

NSA

NIB

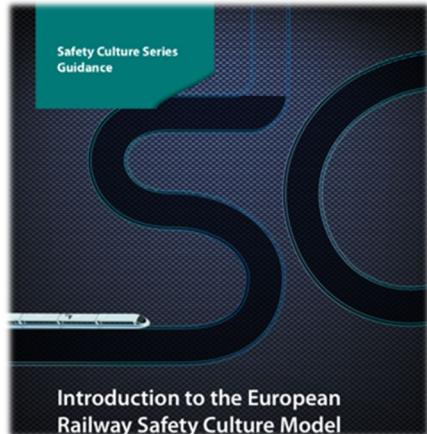
National administration
European administration

2M+ staff

Safety Leadership Training

- 1-day training targeting managers at all levels
- Various pedagogical methods / Emotional engagement
- Shaped by the professional film “Between the Lines” relating a real accident
- Designed in 2018, tested in 2019, currently deployed at **Thalys International, VR Group, Irish Rail, Ermewa**
- Dissemination through a train-the-trainers approach





Guidance

Training

Report

Dissemination



Current and Future Developments

- Safety culture assessment
- Cultural change strategy
- Peer review service
- 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
www.era.europa.eu/activities/safety-culture_en

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gregory.rolina@era.europa.eu



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