

Safety in Railways: *Quo Vadis?*

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Is There a Future for Rail?



The importance of railway



Congestions

Sustainability &
Economic growth



MAKING THE RAILWAY SYSTEM WORK BETTER FOR SOCIETY

The **objective** of the Agency is to contribute, on technical matters, to the implementation of the European Union legislation aimed at improving the **competitive position of the railway sector** by:

- Enhancing the level of **interoperability** of railway systems
- Developing a common approach to **safety** on the European railway system
- Contributing to creating a **Single European Railway Area** without frontiers, guaranteeing a high level of safety



Founded in 2004*
Valenciennes (FR)
approx. 165 staff



The "4th Railway Package" will transform the Agency from a consultative body to an **Authority** capable of issuing Safety Certifications and Vehicle Authorisations (by 2019)

“Making the Railway System Work Better for Society”



“Safety First”



Facilitate the completion of the
Single European Railway Area
- removing the remaining
technical barriers

The Single European Railway Area



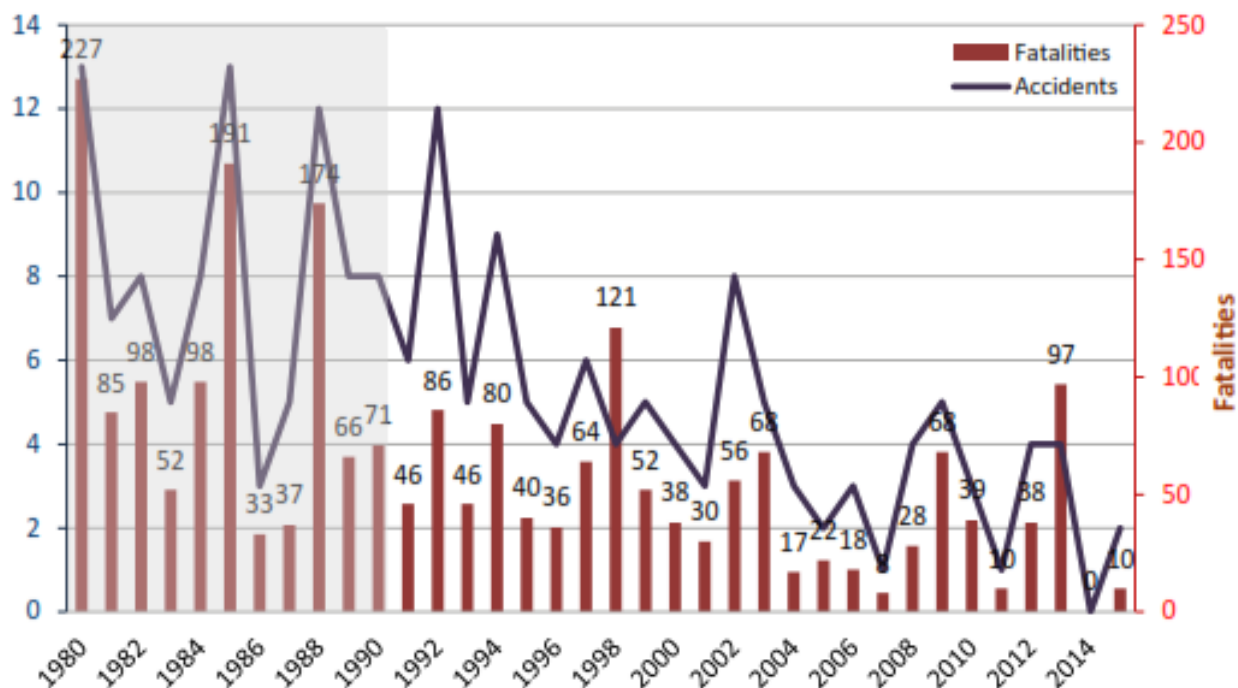
Make rail more competitive

- + Market opening
- + International operation
- + Interoperability
- + Safety

safe :: connected :: affordable

Historic safety development

Figure 4 — : Railway accidents with five or more fatalities (EU-28, 1980–2015) ⁽¹⁾



Development of significant accidents

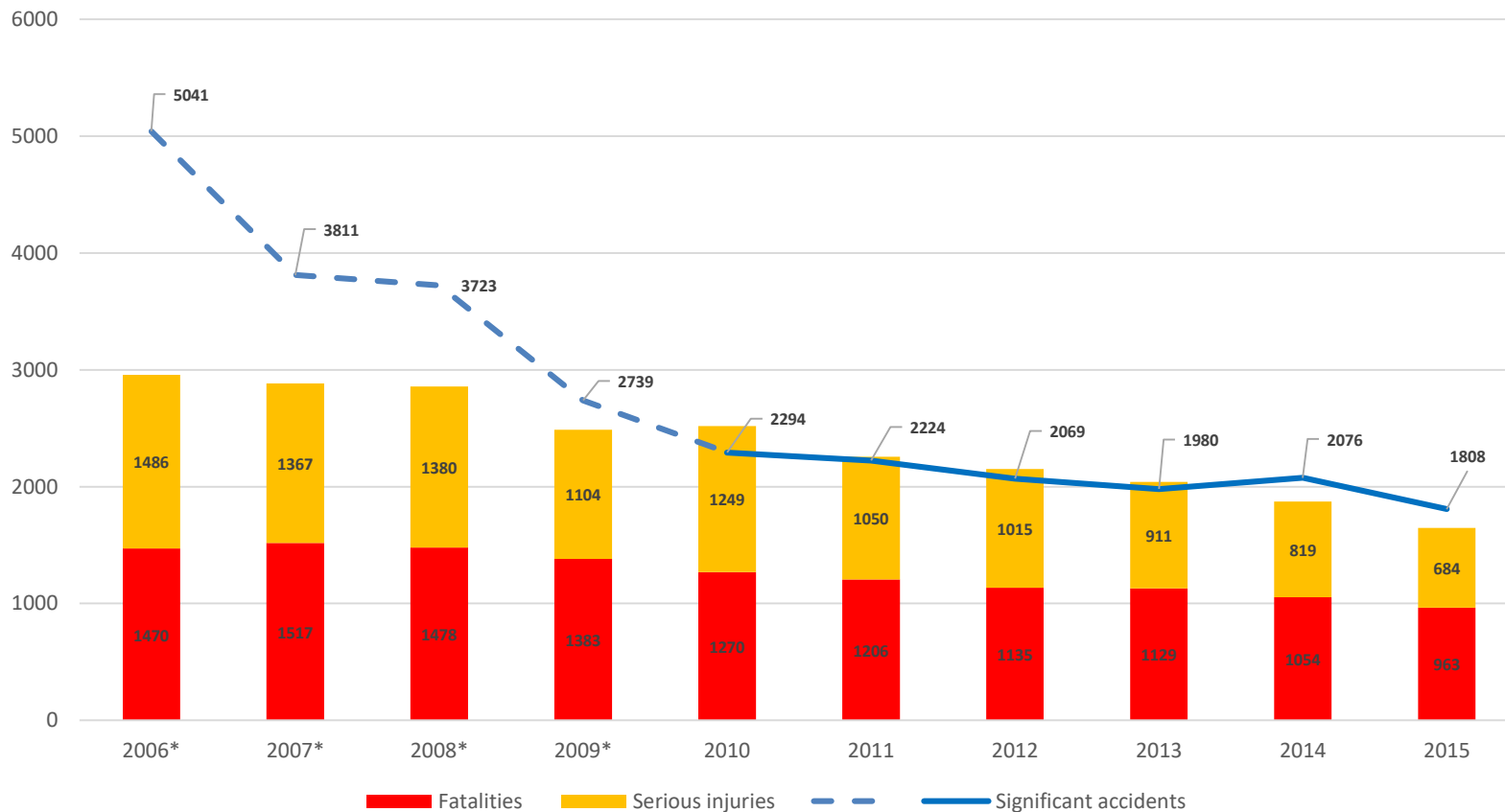


Figure 1: Significant accidents and resulting casualties for the EU-28 (2010–2015)

* Not all Member States were reporting EU-27 (2006–2009)



A complex environment



(Cyber) security



Fast innovation & digital technologies

New threats and challenges



Developing and implementing regulation

Masters of risk management



§

RESILIENCE



Common Occurrence Reporting Programme

Improve **risk profiling and modelling** techniques

Ensure **full visibility** of safety performance in EU Member States

Enable **identifying and monitoring** low frequency high consequences risks

Improve **learning, exchange and sharing** of accident/ incident data between all EU actors

**Better risk-based
decision making to
improve railway
safety performance**

Safe – but still with catastrophic accidents!

- A decade of SMS and risk management
- Need for **strong safety leadership** and **positive safety culture**
- **Human and Organisational Factors (HOF)** plays a significant role in all catastrophic railway accidents and occurrences
- Security is a rising threat



How to continually Improve Safety? – The Need to Articulate the Two Sides of Safety



Expertise
Technical barriers
Rules and
procedures

*Compliance
behaviour*

Competence
Learning
Ability
Adaptations

*Proactive
behaviour*

Railway Safety Culture: Towards a Common Understanding

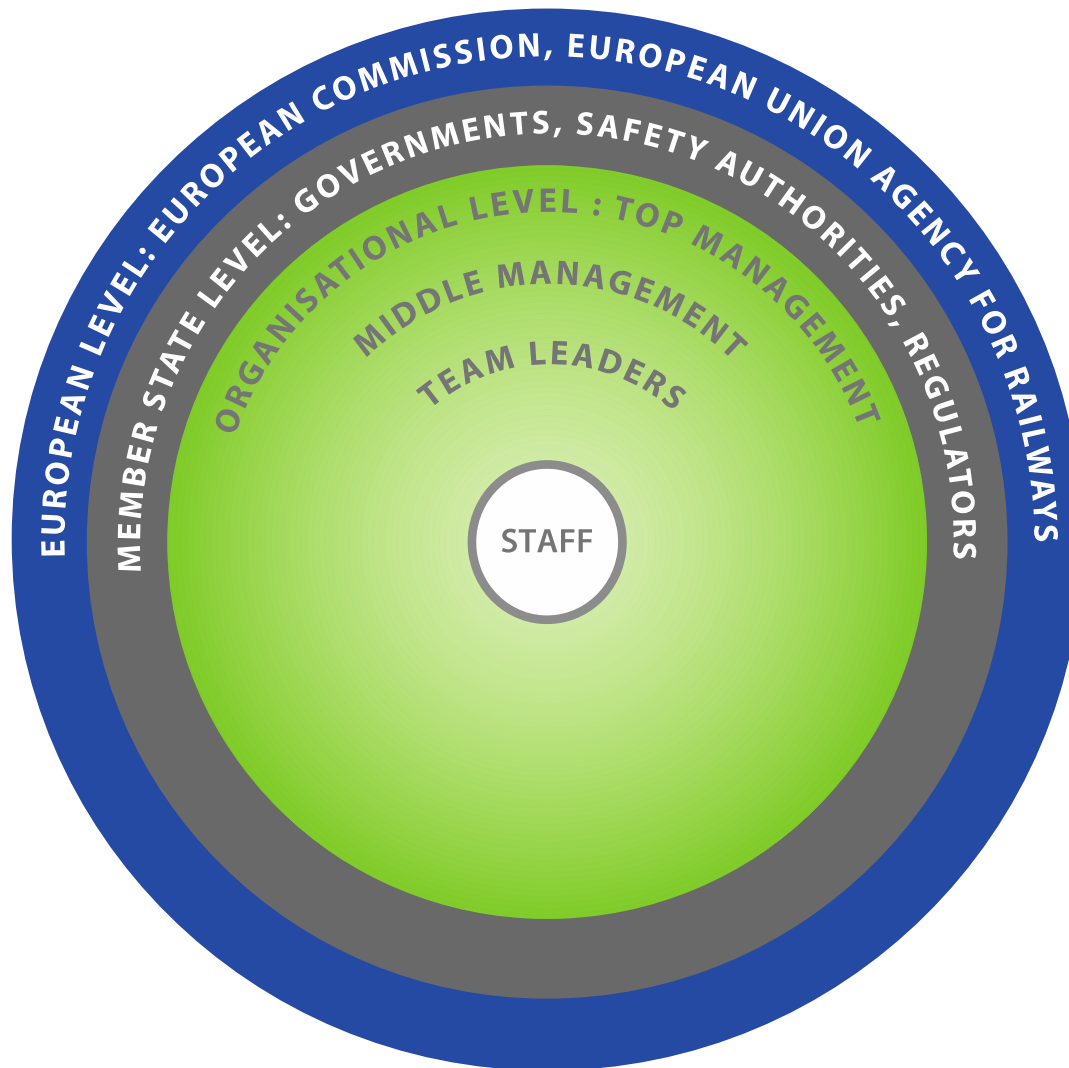
*Safety culture refers to the interaction between the requirements of the **safety management system**, how people **make sense** of them, based on their attitudes, values and beliefs and what they actually do, as seen in **decisions and behaviours**.*

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

Attributes for a Positive Railway Safety Culture



Railway **Safety** Culture and **Security** Culture: We All Have a Role to Play!



Resilience - how? Three Pillars of Safety





What can the actors in the railway sector do, in order to protect themselves, their services, and their customers from **Cybercrime**?

We are Shaping the Future of Rail in Europe!

Single European Railway Area (SERA)



safe :: connected :: affordable



Making the railway system work better for society.

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