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The move from a rule based system to a risk based system

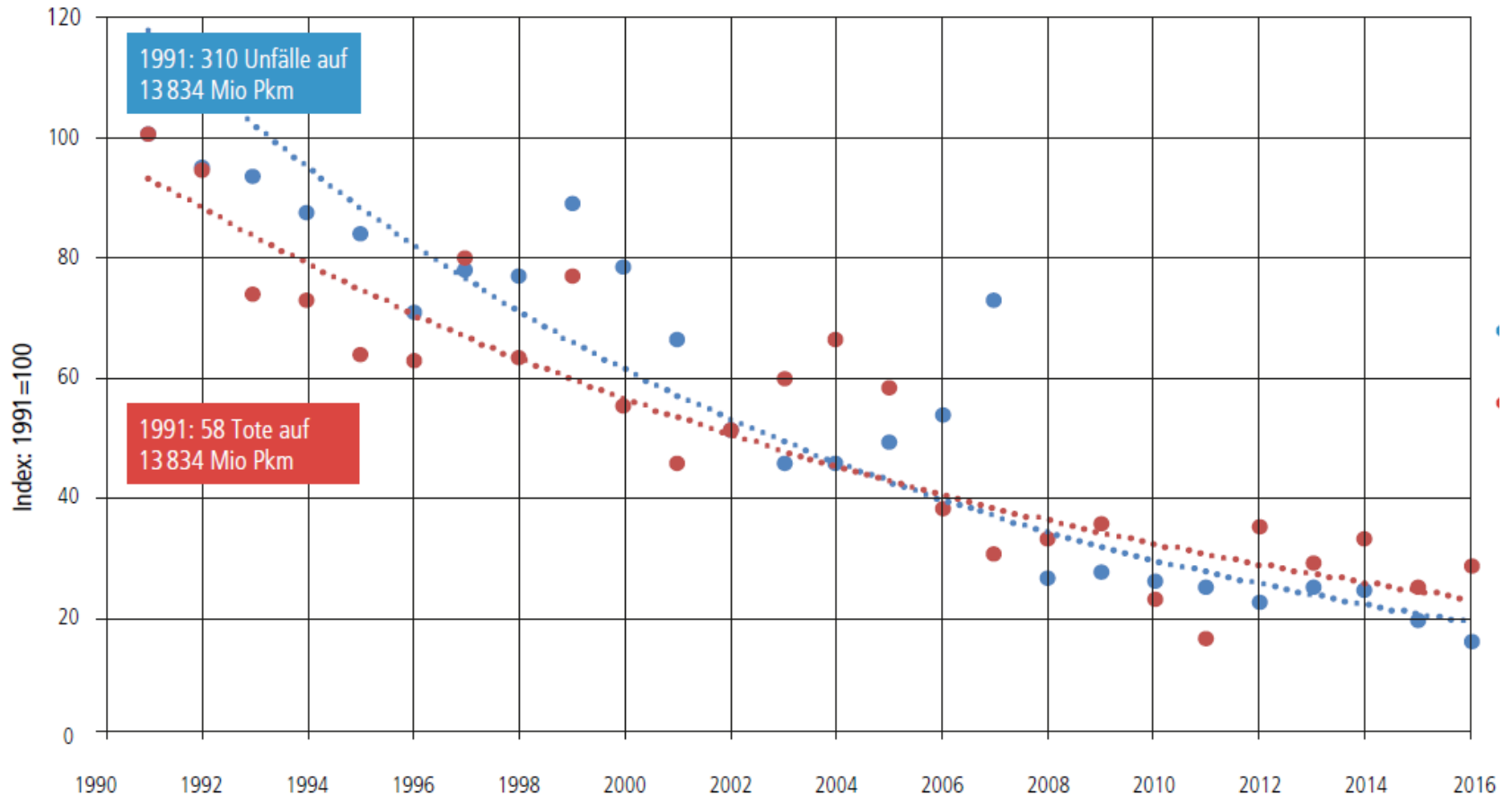
Challenges for the competent authorities

October 2017





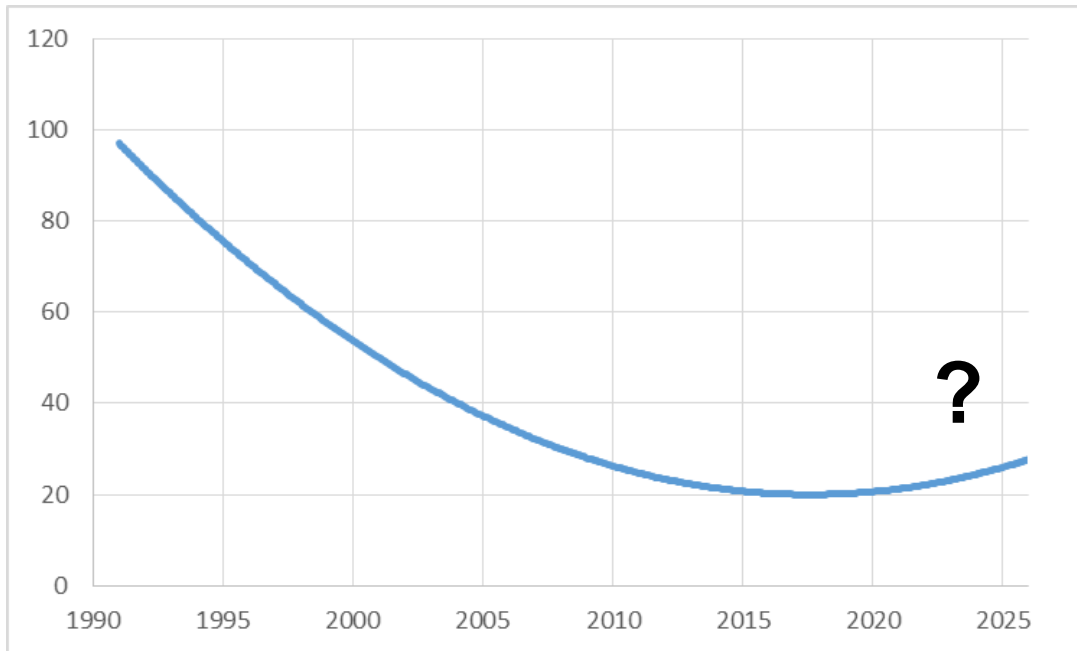
Development of railway safety records



Positive development of railway safety records due to:

- Technological advancement and detailed regulation
- Move from rule based to risk based system

Future development of safety records



New and enhanced risks, due to:

- Aging infrastructure and rolling stock vs. new technologies on the same network
- Increasing frequencies of changes
- Growing complexity
- Progressive replacement of human activities by technology

To maintain or improve actual safety record:
Proactive identification and mitigation of risks caused by changes

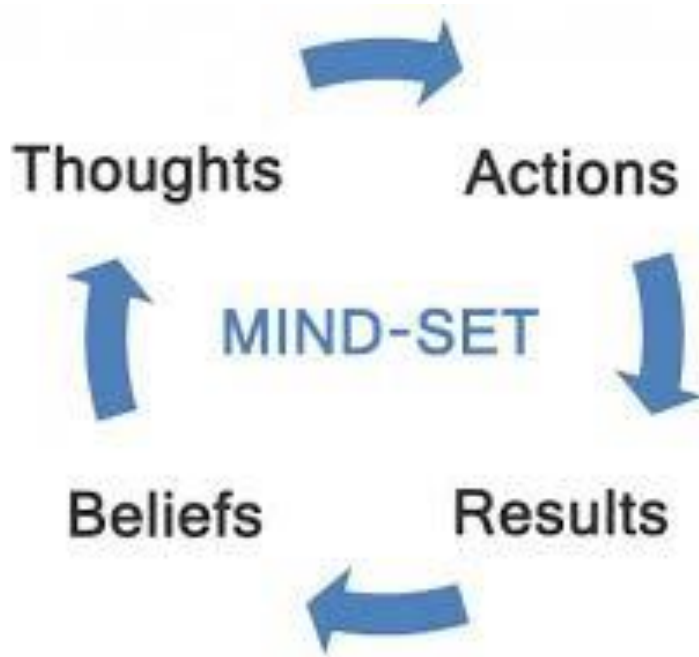
However: implementation of a risk based system is challenging



Rule based vs. risk based system

Rule based	Risk based
List of prescriptive rules and detailed standards, set in stone	Performance objectives and indicators linked to public values Monitoring achievement
Reactive (hazardous situations, accidents) Inflexible acting (first change rules)	Proactive (identifying and mitigation of internal risks and at interfaces) Change management
Compliance to rules more important than reflexion on situation	Efficient use of resources Focuses on outcomes not processes
Blaming culture Deyning responsibility (hiding behind prescriptions)	Taking Responsibility Drives safety improvement Influences safety culture

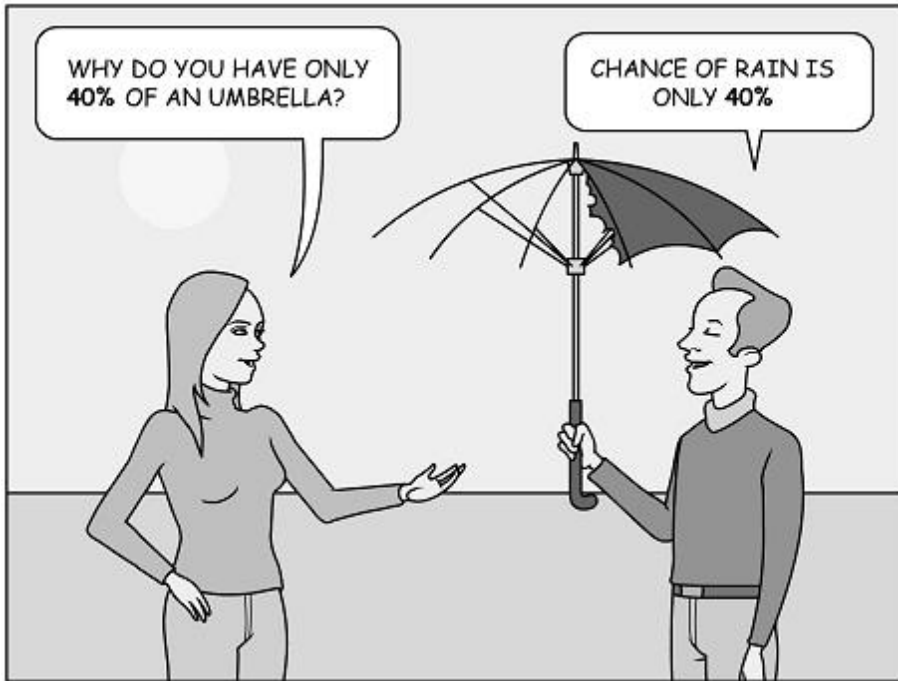
Challenges of transition to a risk based system (1)



Mind set, competences:

- Culture to embed risk approach
- Organisational challenges (resources / competences / processes)
- Time to design and implement risk framework
- Continuous adjustment of framework
- Communication
- Risk based means to take risks

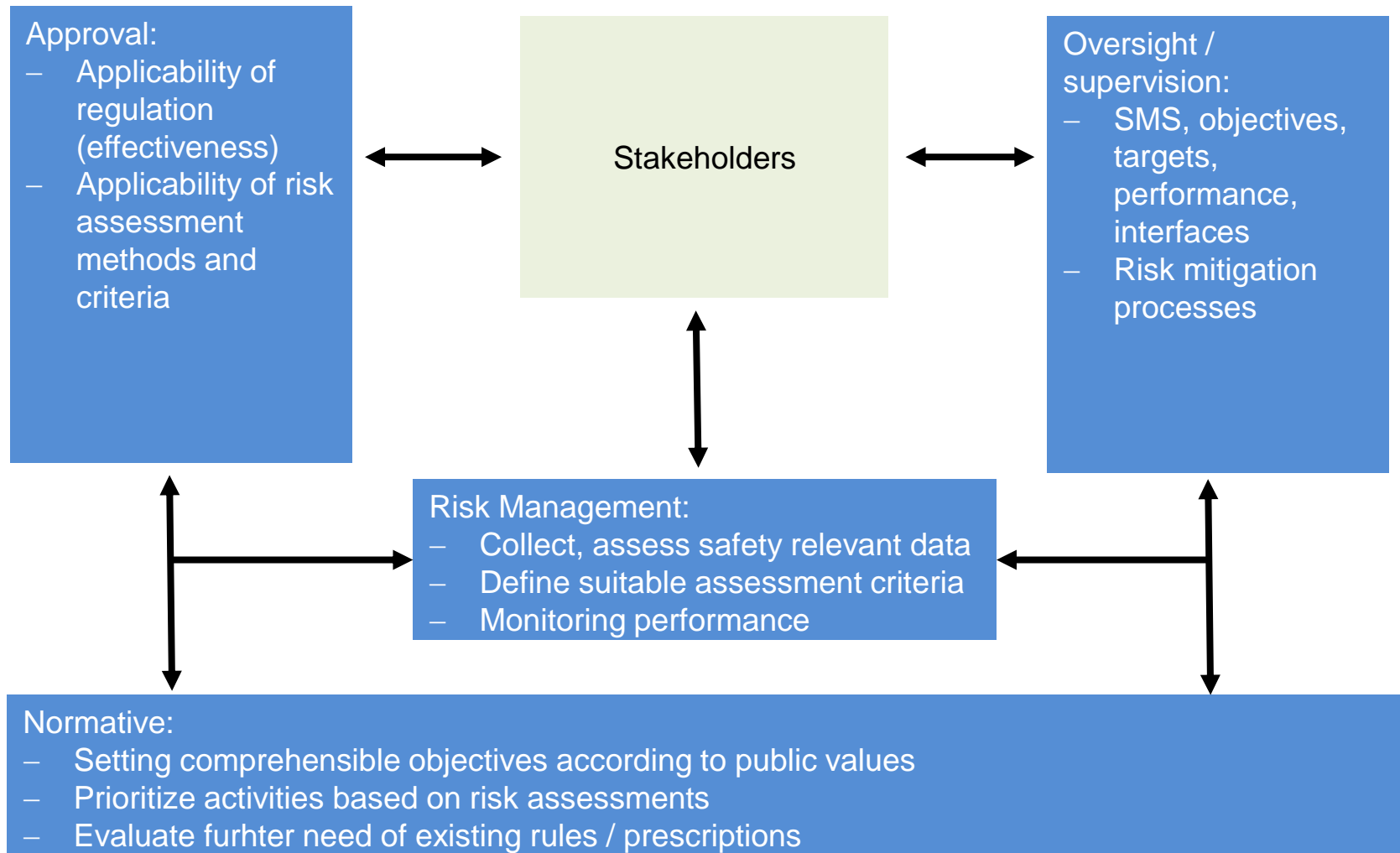
Challenges of transition to a risk based system (2)



Risk management:

- Reliable and complete data-sets
- Compatible and to task adjusted assessment criteria
- Processes assuring accurat and consistent assessments with speed and responsiveness

Railway regulator



Conclusions

- Implementation of a risk based system is needed to proactively identify and mitigate new or enhanced risks
- Challenges:
 - Setting the regulative framework is not sufficient – change of mind sets, adoption of organization and processes, defining risk methodological framework needs time
 - Risk assessment is not objective – communication, agreement on assessment and other decision criteria
 - Risk assessment is not sufficient – technical standards, operational rules are needed for efficient approval and interoperability
 - ...



**Thank you
for your attention**