



Eisenbahn-Bundesamt

Safety developments in DE / 4th railway package

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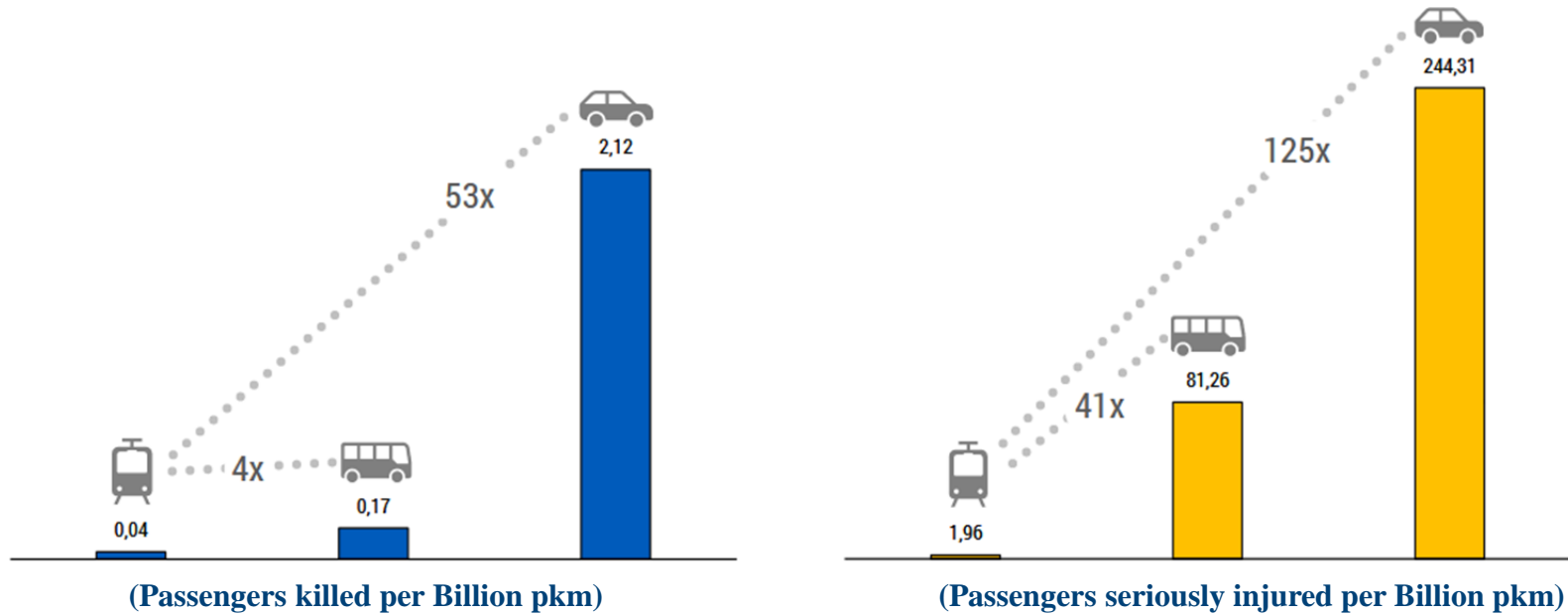
Eisenbahn Bundesamt

Head of executive department

1. Safety development in DE
2. 4th railway package aspects

Level of safety

Overall safety level of railways is good and stable, also in comparison with other modes of transport.



Signals passed at danger

Rising number of signals passed at danger

Activities

- Intensive analyses together with RUs and IMs
- Improvement of learning and reporting culture, human factor aspects
- Intensify prevention
 - strengthen train drivers training
 - recommendation to use simulator training on a regular base
 - Increase sensitivity for correct calibration of CCS onboard
 - Increase sensitivity for respecting operational speed limits
- Investigation regarding effects of digitalisation on work of train drivers (disattraction, also research project carried out)

Digitalisation

Research project: Effects of digitalisation on railway operation

https://www.eba.bund.de/SharedDocs/Downloads/DE/Forschung/Forschungsberichte/2019/EBA-Forschungsbericht_2019-02.pdf

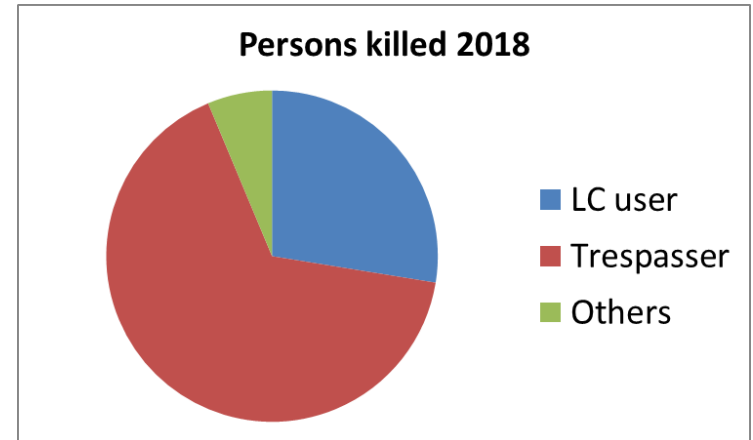
⇒ **Extended version of European driver's desk EDD recommended in mid-/long term due to wide variety of solutions**



Level crossings / Trespassers

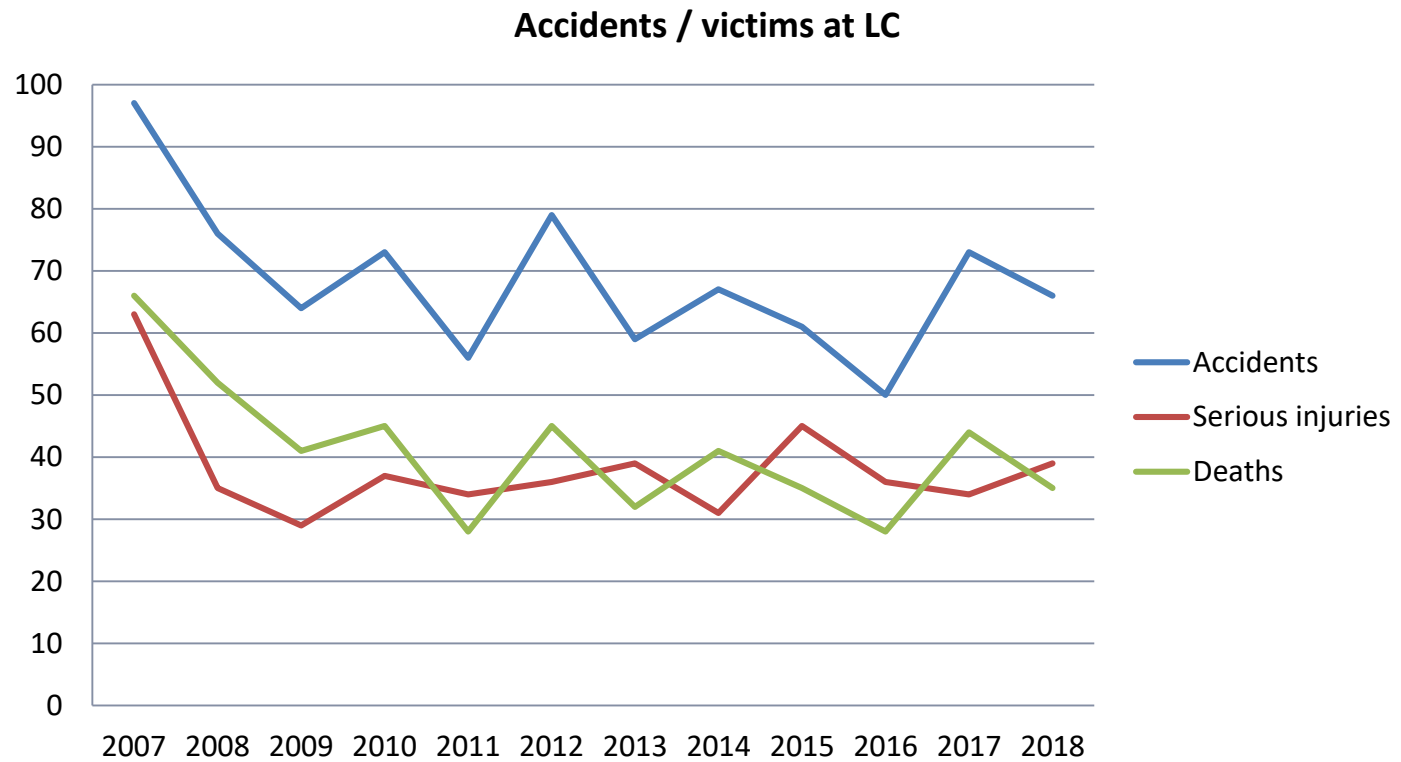
level crossing users and trespassers represent:

- 90 % of all persons killed and
- 80 % of all persons seriously injured.



Level crossings

Number of accidents shows decreasing trend, no clearly positive trend for victims at LC.



Level crossings

Activities / programs:

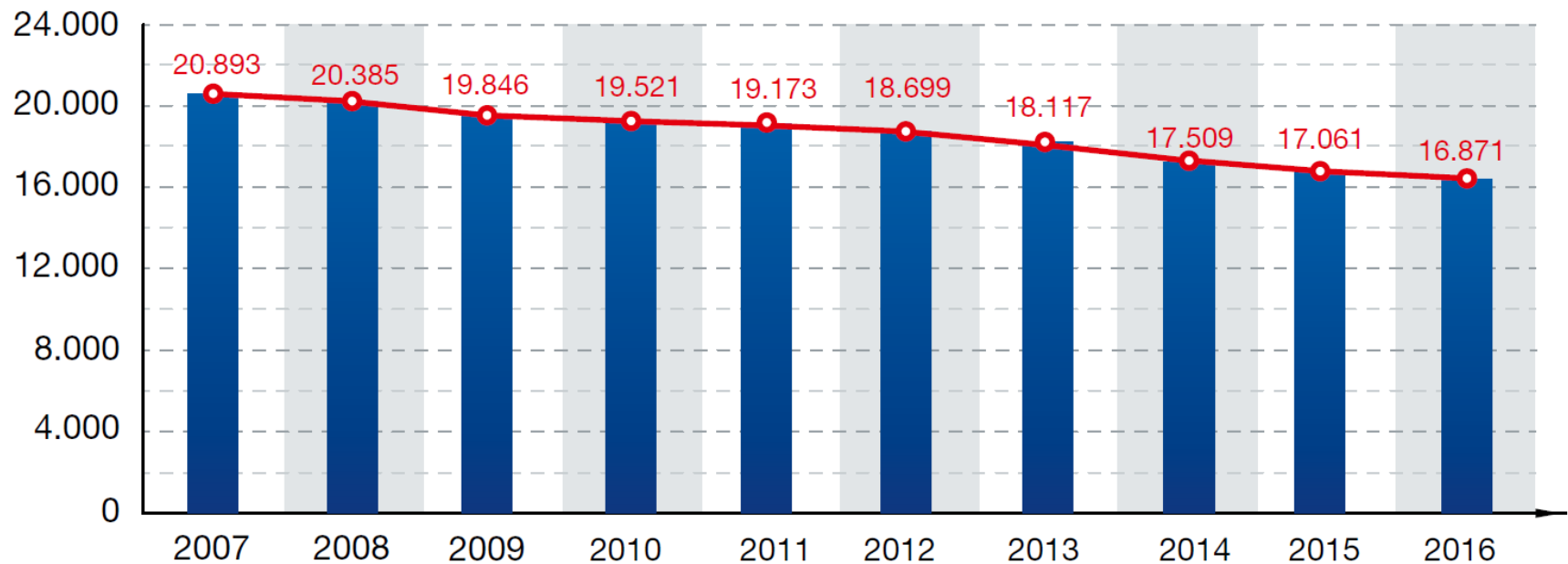
- Replace old technical equipment by up-to date equipment, suitable to today's traffic situation (2018: 238 LC renewed)
- Raise awareness for road users, together with automobile associations (school campaigns, media campaigns, youtube videos, etc.)
- Develop automatic system for temporary LC protection instead of staffed LCs (also NIB safety recommendation on this)
- Equip passive LC with active warning / protection
- Replace existing LC with road under-/overpass
- Include LC location in GSM car navigation systems



Number of level crossings

Since 1950s, number of level crossing dropped by 50 %.

Trend over the last 10 years:



Evacuation of trains



- Observation: 4 to 5 hours to evacuate passengers out of the train.
- Critical situations, especially in summer / winter with extreme temperatures
- NSA together with the sector developed a target of **120 minutes maximum time**, in which the disembarkment of passengers should be possible.
- NSA will check if and how RU ensure this in practice

IM operational staff (signal box)

Several occurrences and accidents caused by IM operational staff in the last years

Activities:

- Change operational rulebook towards process oriented instructions
- Program to install additional technical equipment for signalboxes without track detection system („technisch unterstützende Fahrwegprüfung“ TüFa)
- Strengthen focus of top management responsibility for SMS as a whole, and especially the areas of monitoring and internal auditing („Chefaufsicht“)
- Strengthen training activities, including reporting culture, human factor aspects, prevention, sensitivity for safety responsibility

1. Current safety issues and initiatives
- 2. 4th railway package / ERA aspects**

Exchange of information

RU with cross-border operation

- NSAs to cooperate on supervision
- Exchange of information important and necessary
- Currently no common platform to do so

⇒ ERA should provide such platform
(e.g. ERADIS extension of „safety certificates“ area?)

Exchange of information

Development of CSM ALSP

- Important activity, top priority of EU-COM/ERA
- Very tight and ambitious deadlines

What needs to be taken into account?

- Respect / integrate existing national systems
- Keep effort for sector on a reasonable level
- Integrate existing processes (JNS, SAIT)
- Clarify responsibilities of different actors involved



CSM Risk evaluation and assessment

Application of CSM RA is no success story:

- RU/IM have difficulties applying the CSM RA
- ERA reports problems in CSM RA application
- Vague criteria („significance“)



Recommendation for future development of CSM RA

- Focus on practicability and applicability
- Priority on innovation and investment
- Training possibilities for applicants
- Specification of criteria like „significance“, „complexity“, „safety relevance“
=> harmonise decisions on comparable cases in different companies

New TSI OPE, Reg. (EU) 2019/773:

- Applicable from June 2021
- Reduced areas where national rules are allowed
- Concept of AMOC (acceptable means of compliance) from 2021
- Priority for five areas
 - => Safety of load, safety of passengers, checks before departure and during operation, departure of train, degraded mode
- Deadline 15 October 2019 to notify national rules as potential AMOCs
- **ERA to decide on potential AMOC until 16 June 2021**



Thank you!