



REPTILE

pluggable lizard brain

Locolog

journey details

monitoring **train** operation's **safety** from **big data**

1st UIC Digital Awards
Saint Petersburg 30 November 2016

Paolo Righetti
founder & product manager

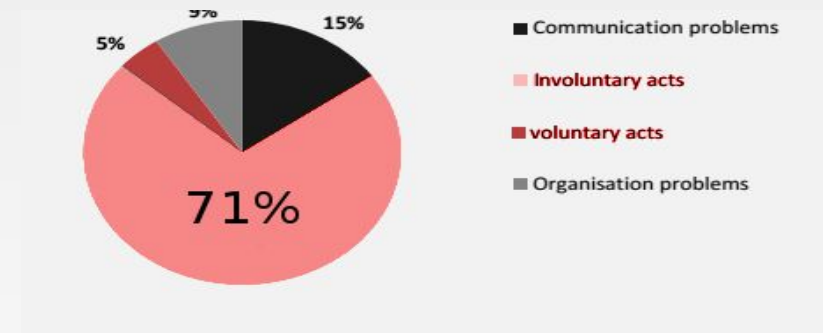


Railway accidents' trend and causes

The human factor

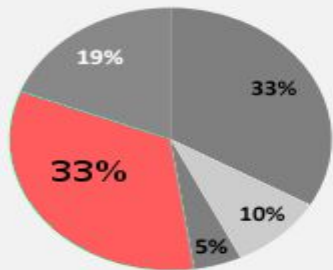
data & graphs from UIC Safety Database Report 2014

behavioural 76%

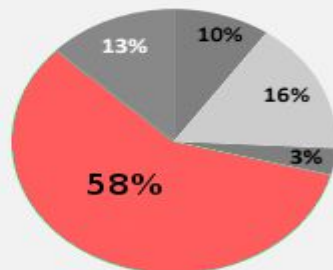


train driver 29-58%

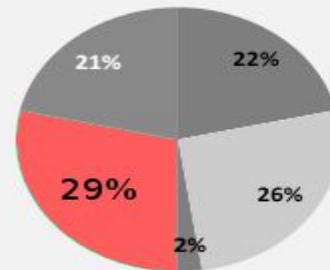
Collision with an obstacle



Collision between trains



Derailment



- Track & switch maintenance
- Traffic operating & signalling
- Other staff at IM
- Train driver
- Other staff at RU



Increasing trend

(UIC safety report 2014)



Collisions between trains + derailments trend is increasing

COUNTERMEASURES



improving
train driver
factor



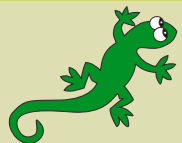
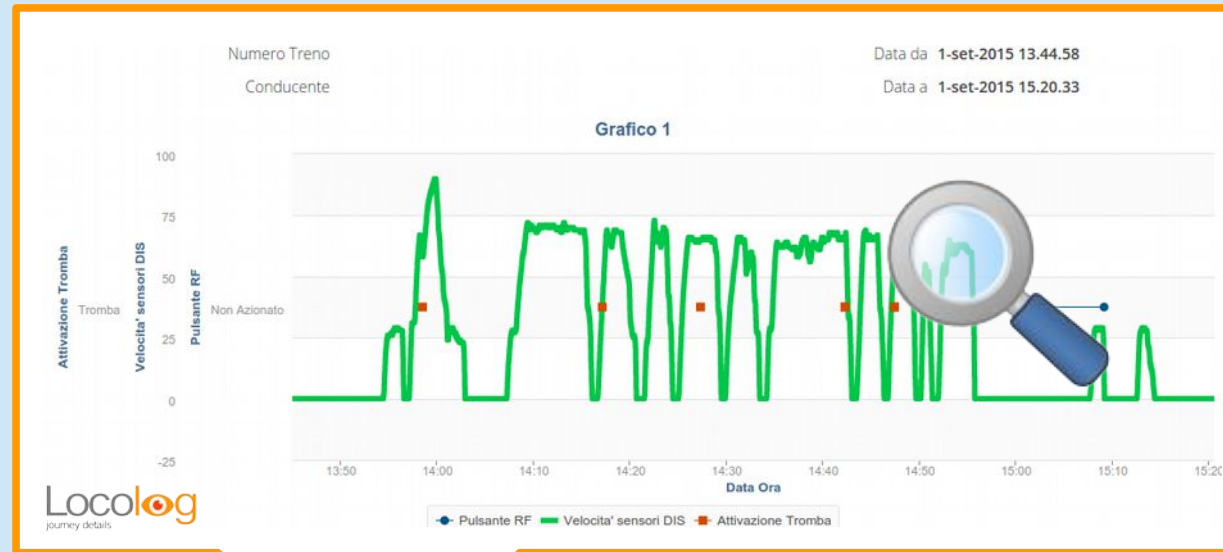
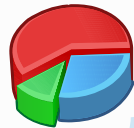
Monitor operations safety

goal

countermeasure



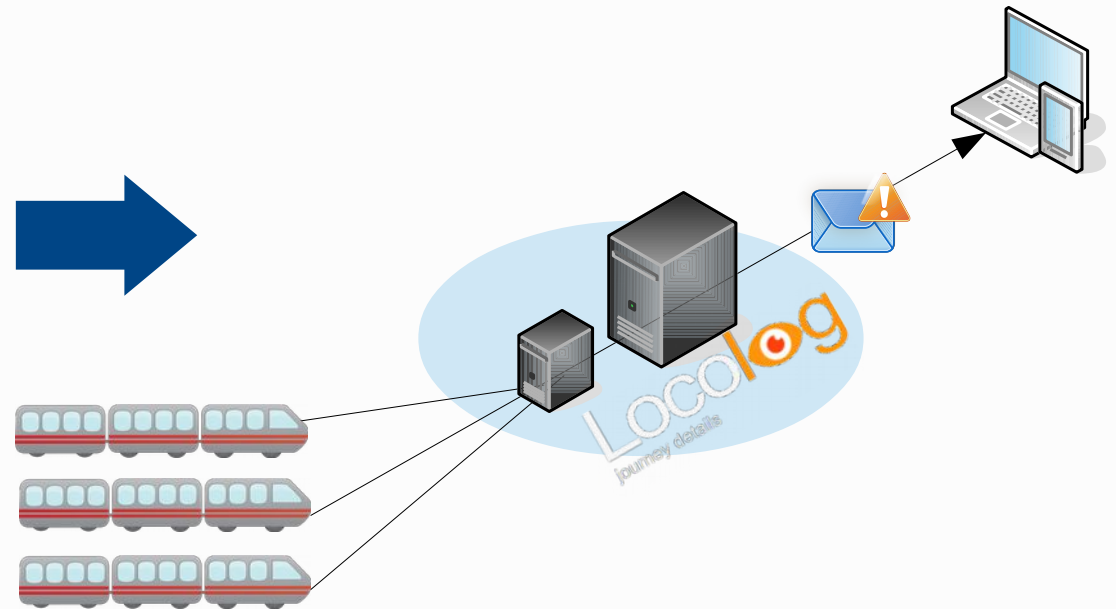
measure



Before vs after

quality

- sampled checks = estimation, **belief**
 - **risky** risk monitoring
- VS
- systematic checks: **knowledge**
 - **higher** level of accuracy
 - **best practices** monitored



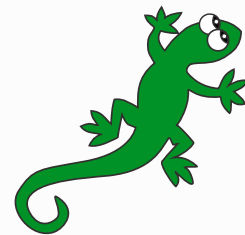
In a nutshell

- human factors affect **safety**
- safety has **vital** importance
- **knowledge** is a basis for safety
- **engine data** is a source of knowledge about operations performance
- **systematic analysis** provides trends on behaviours

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Bring operations monitoring to a new level with

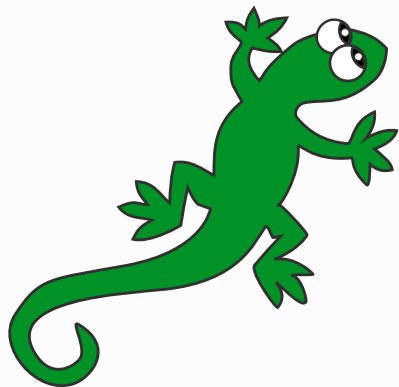


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Bring monitoring to a
new level with



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