monitoring train operation's safety from big data
Railway accidents' trend and causes

40% of accidents caused by human factors in 2016

data & graphs from UIC Safety Database Report 2016

2.03a Accidents per internal causes

2.03b Victims per internal causes
Monitor operations safety

countermeasure

measure

2\textsuperscript{nd} UIC DIGITAL AWARD - Paris 2017
How it is working
Before vs after

- sampled checks = estimation, belief
- risky risk monitoring vs

1) systematic checks: knowledge
2) higher level of accuracy
3) best practices monitored

quality
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
Bring monitoring to a new level with

REPTILE

pluggable lizard brain