



ERC GmbH

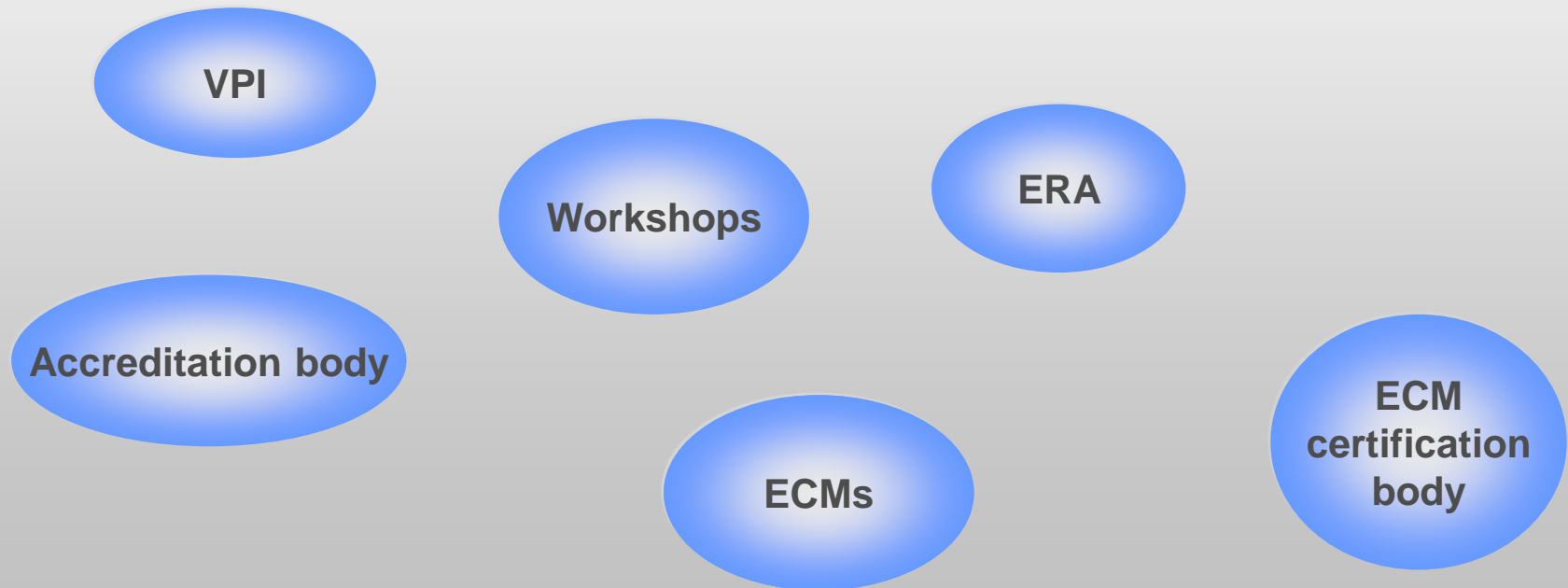
Notified Body Interoperability (Subsystem vehicle)
ECM Certification Body
Independent Safety Assessment



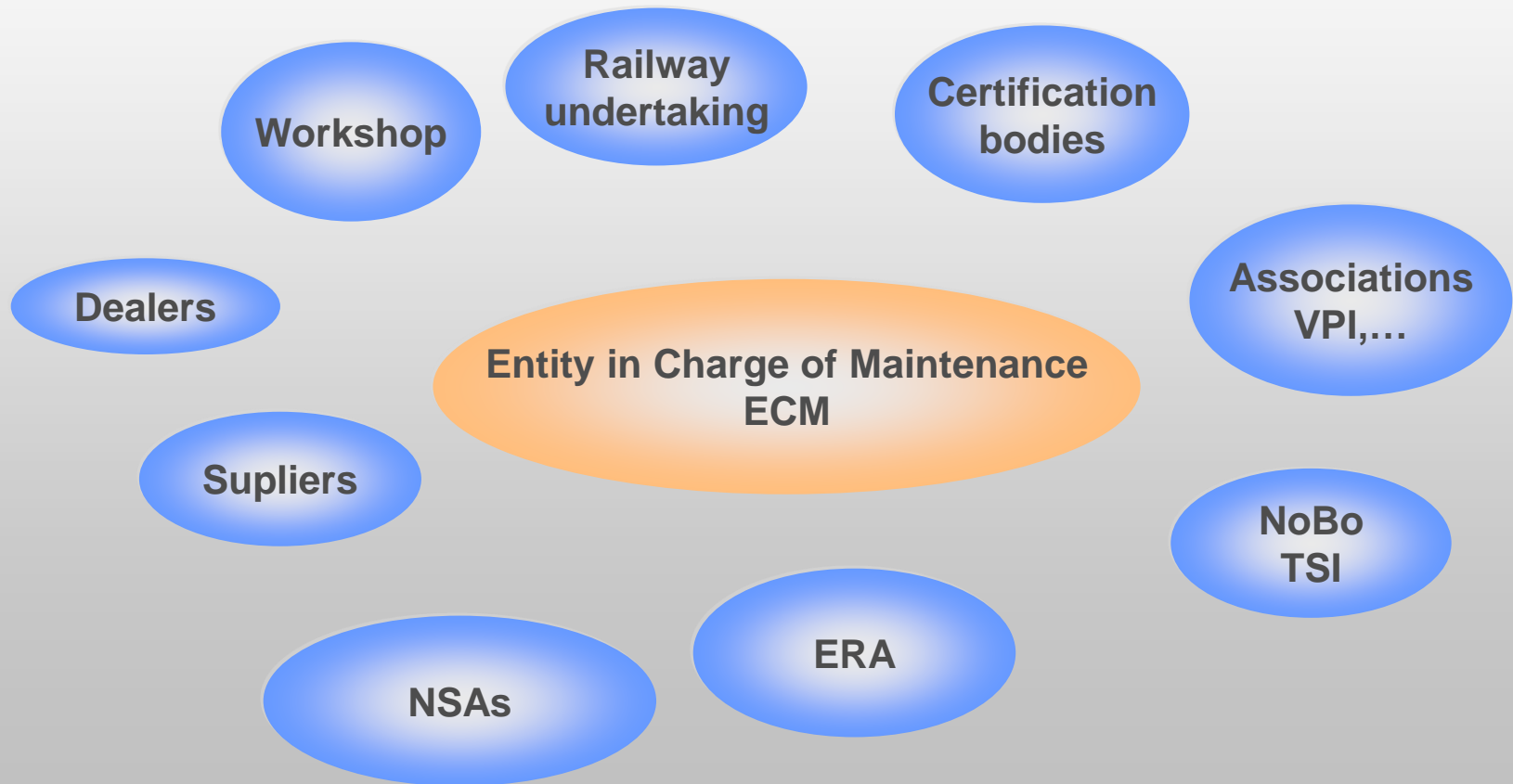
5 years ECM certification

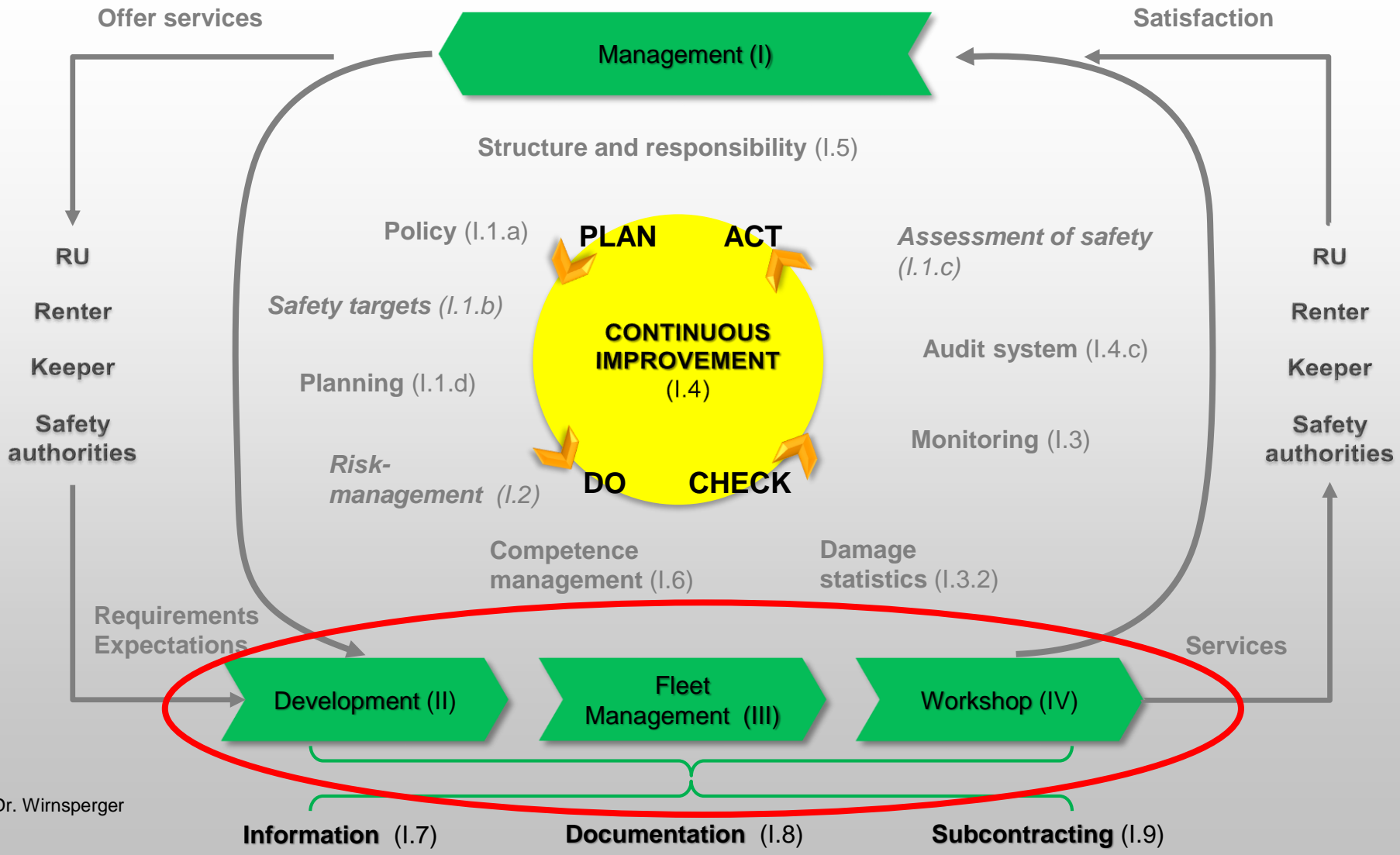
Experience of a certification body

...and the sector



The world seen with the eyes of an ECM

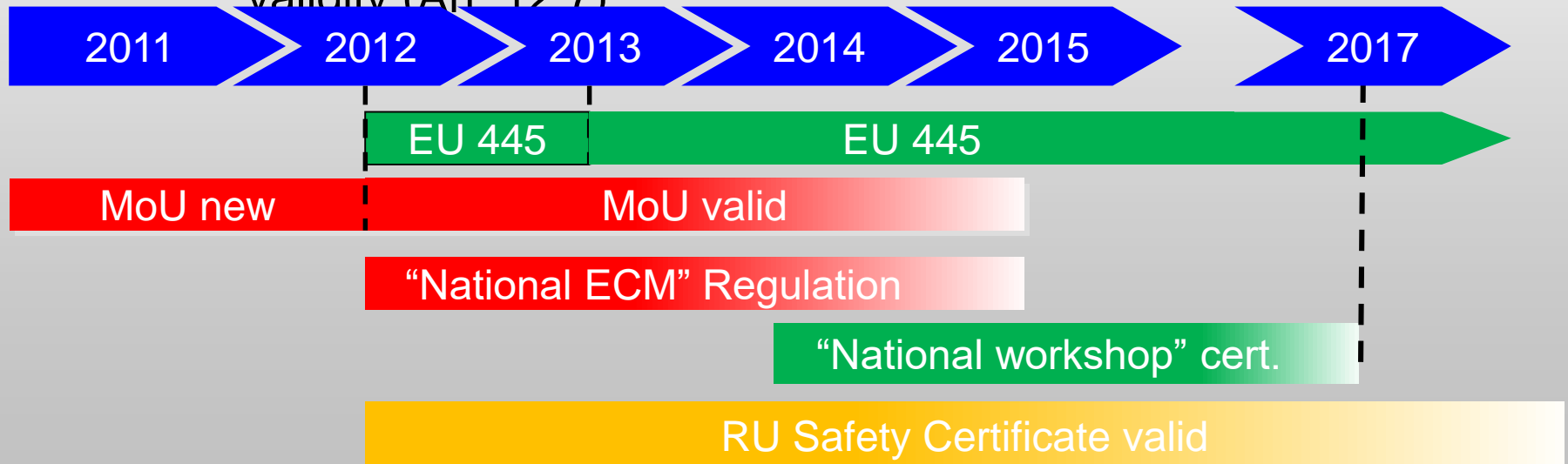




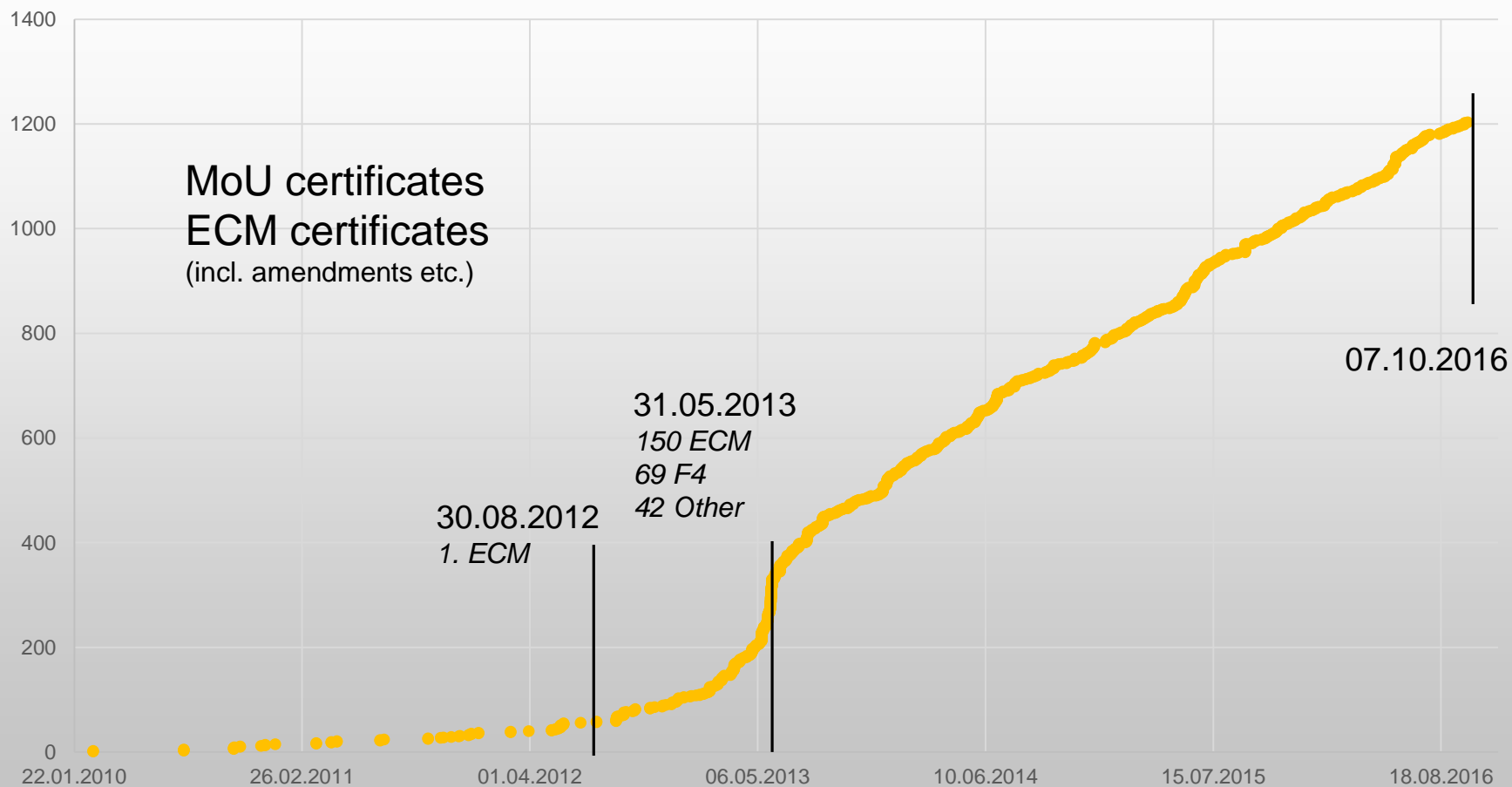
© Dr. Wirmsperger

ECM and „the others“

- MoU until 31.5.2015
- National ECM Regulations until 31.5.2015, (Art. 12.4)
- National workshop certifications until 31.5.2017 (Art. 12.5)
- RU: Safety certificate replaces ECM for the time of its validity (Art. 12.7)

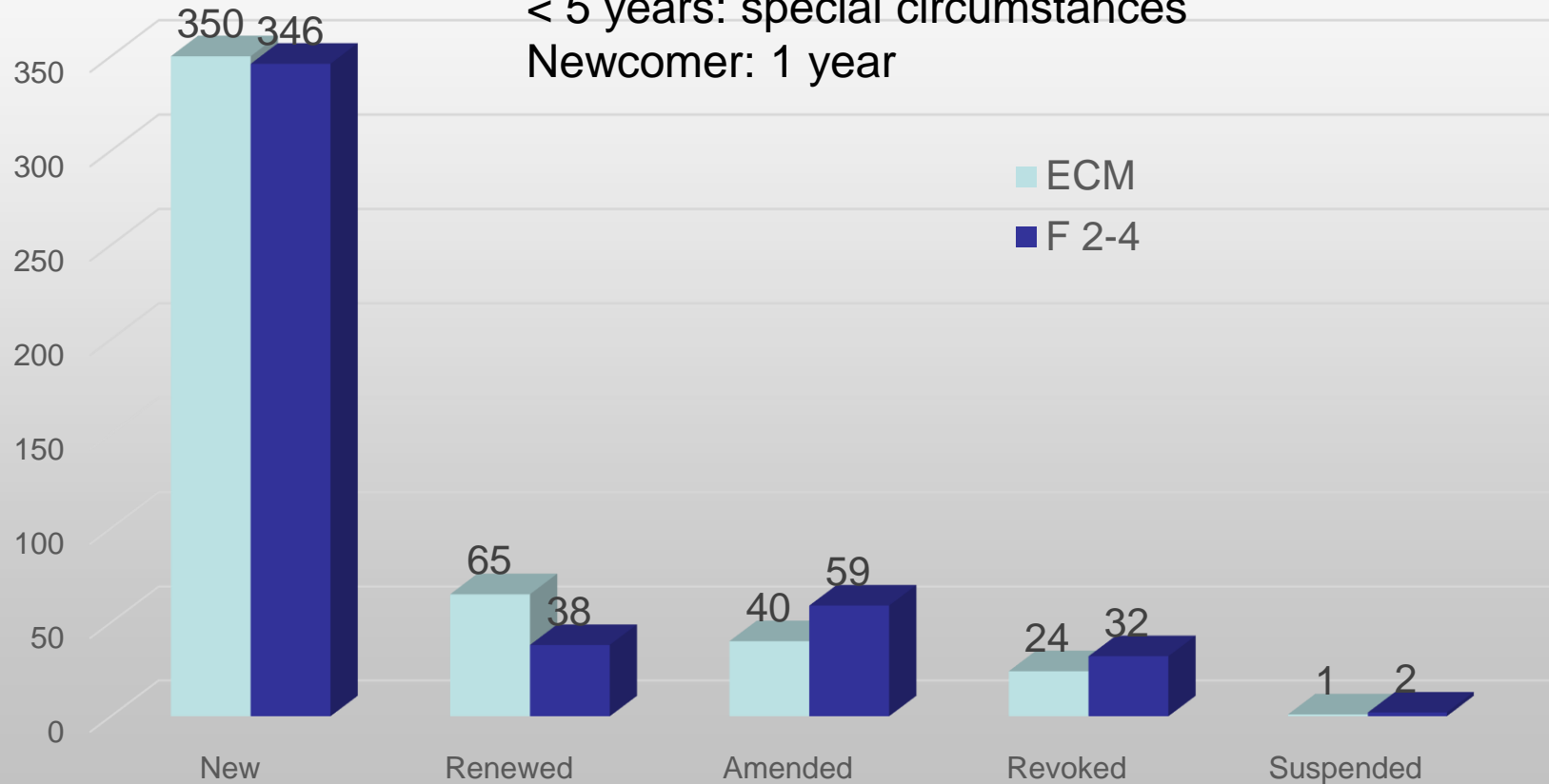


Number of certificates



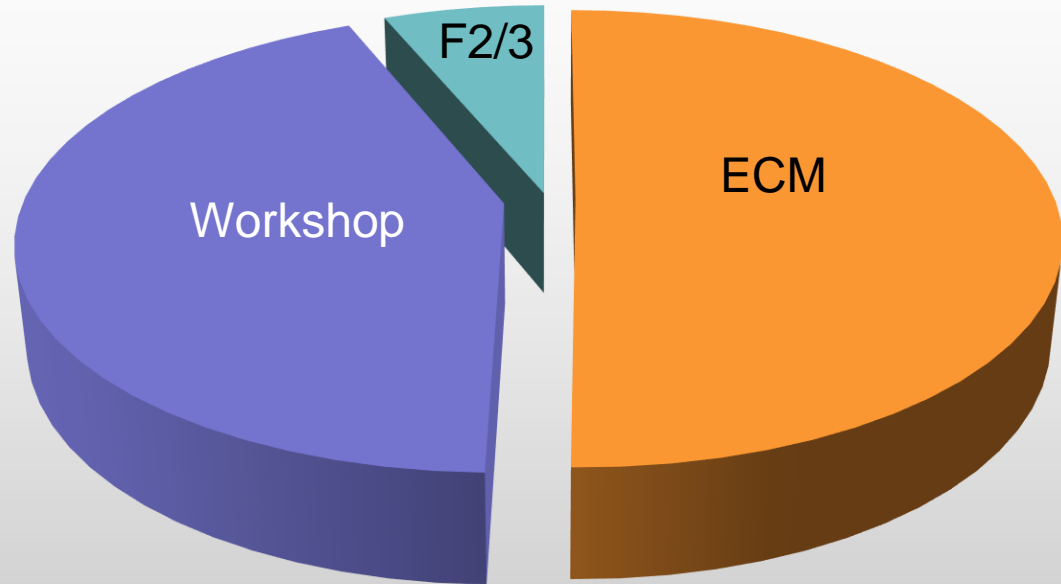
Status of certificates

Standard duration: 5 years
< 5 years: special circumstances
Newcomer: 1 year



Data provided by ERA(September 2016)

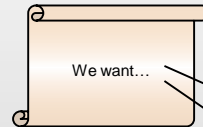
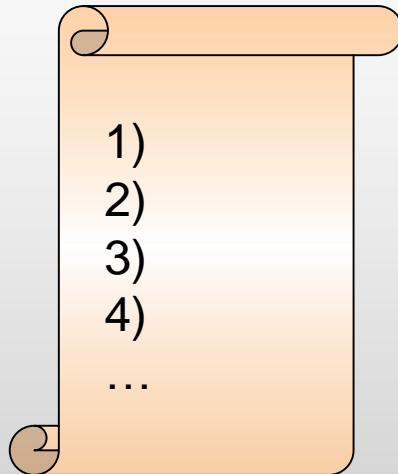
Valid certificates



- ECM
- Workshop
- Development, Fleet Management

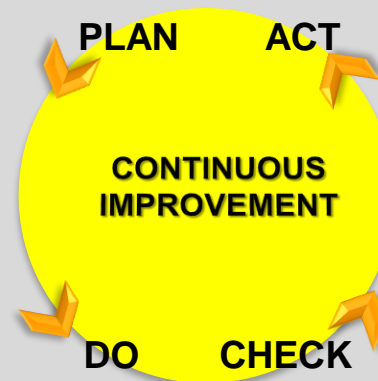
Safety targets

Work in progress...



„We want to become safer...“

- Definition
- Documentation
- Monitoring
- Action



I 1.b/c/d – Safety targets

An idea...

Product

Components

- Wheel
- Axle
- Brake

Work on...

- Wheelset
- Tank

Results

- Derailment
- Hot axle box

Employees

- Evaluation of workplace
 - Office
 - Inspection
 - Workshop
- Equipment

System

- Standstill days
- Deadlines for maintenance

Incidents

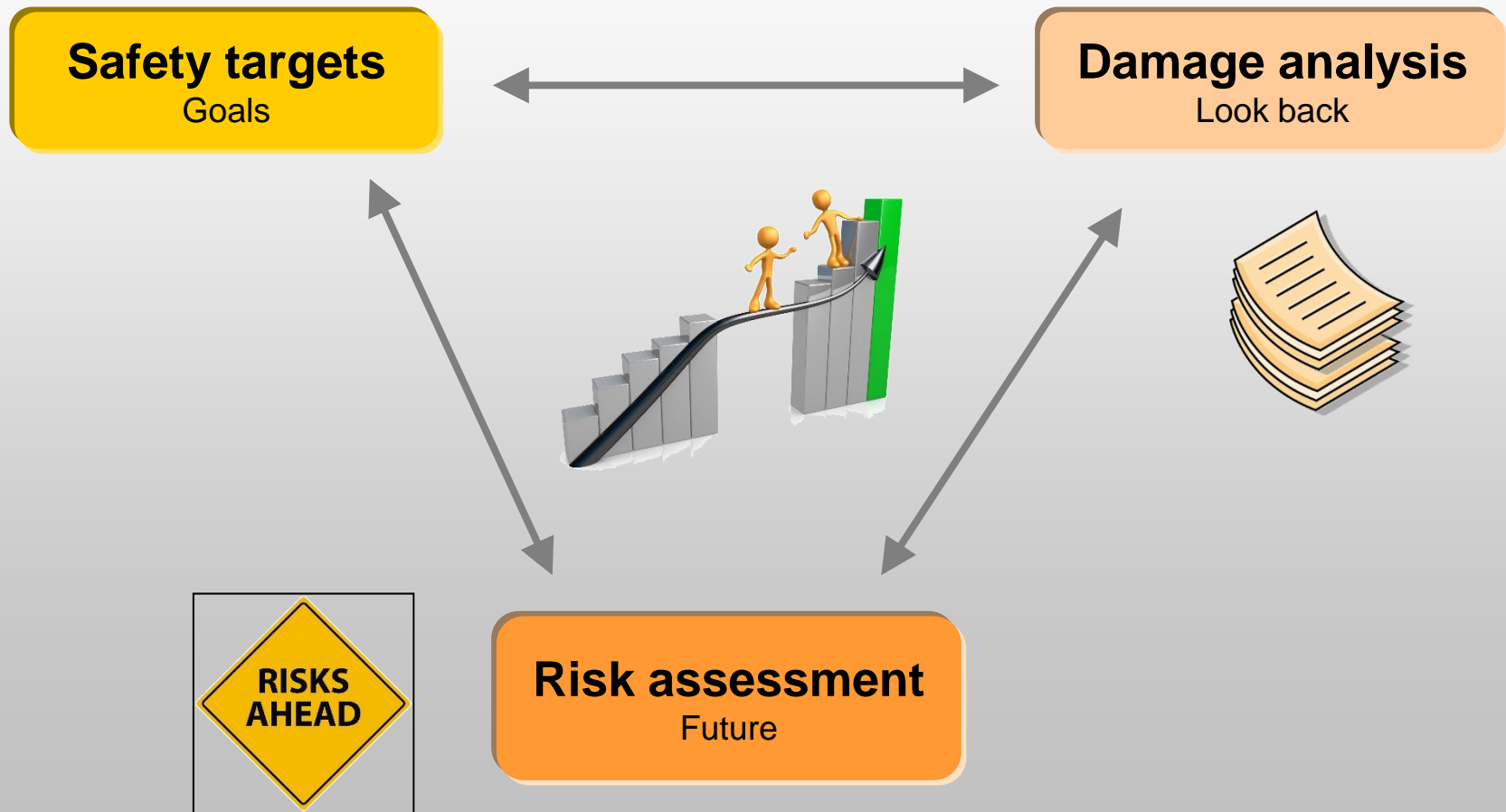
Type

- Property
- Persons

Quantity

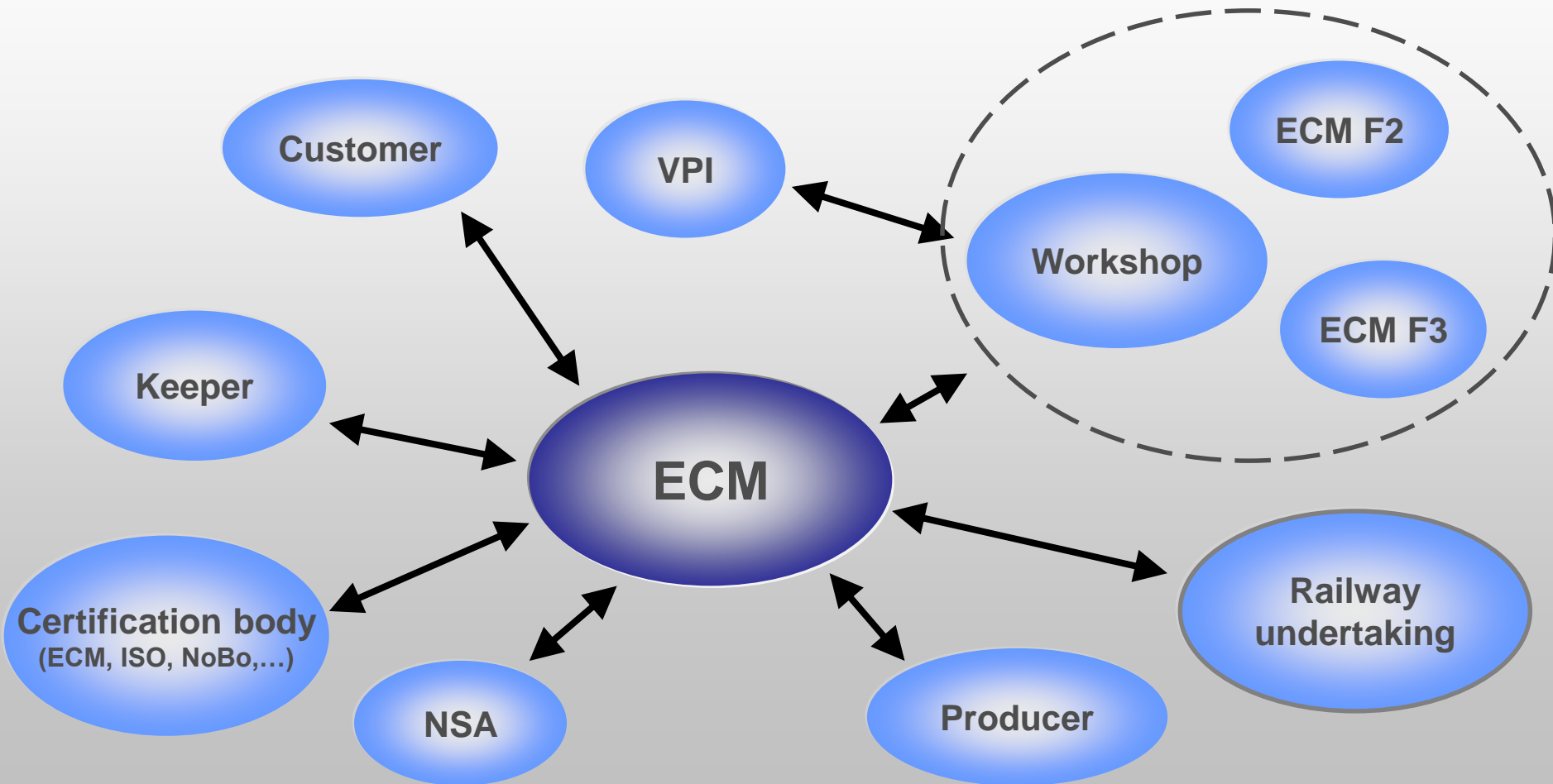
- Number
- Percent
- Costs
- /km

Continuous Improvement



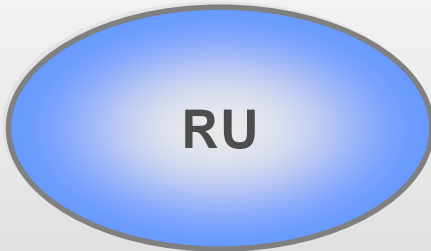
Information → safe wagons

Everybody wants information – nobody wants to share it



Mileage

The great unknown



- RUs don't deliver data
- Technically possible?
- AVV Art. 15.2, ECM Art. 5 (4), I 7.4.e



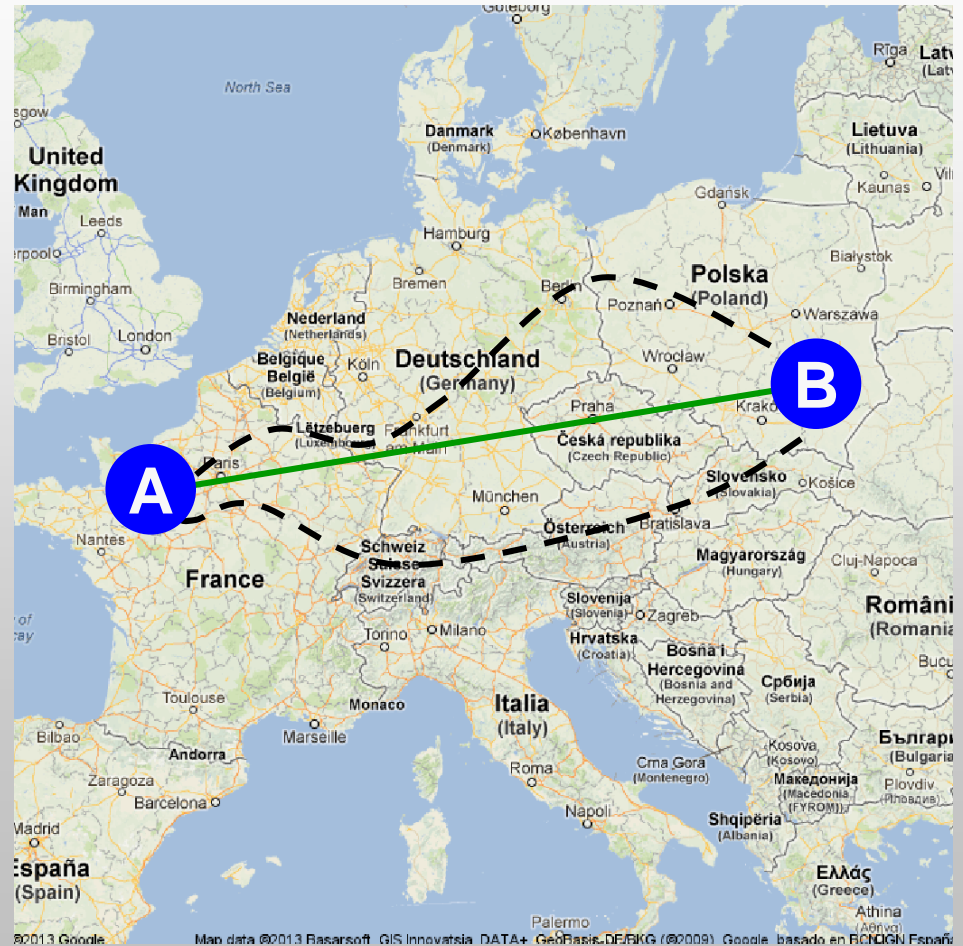
ECM receives data from RU



Mileage

2

Wagons go A → B → A



Mileage

3

Renting





Mileage

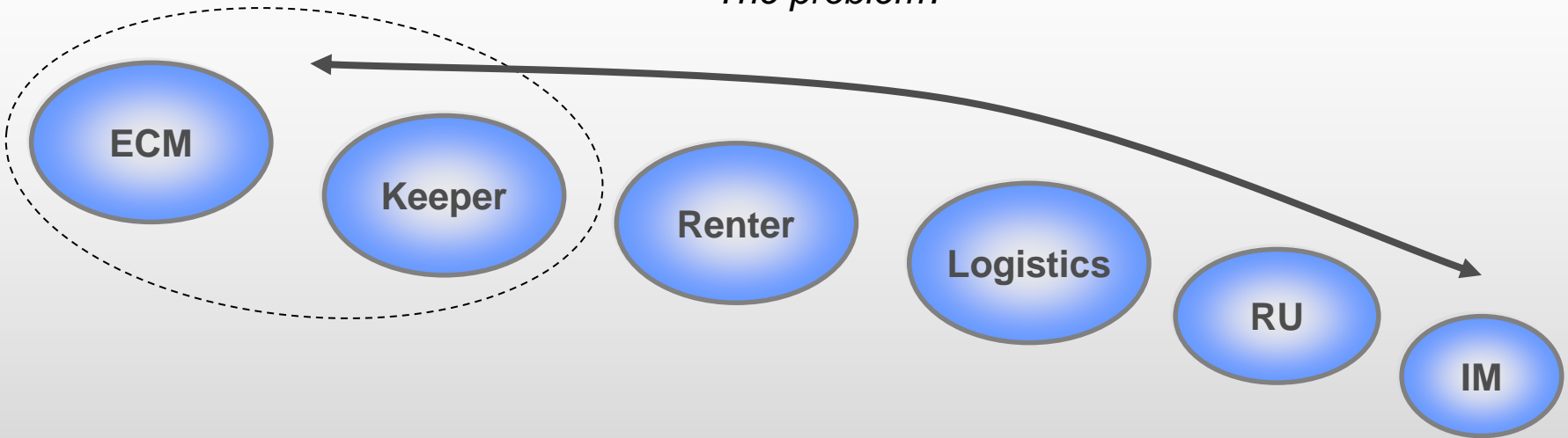
“Here I go again...”





Mileage

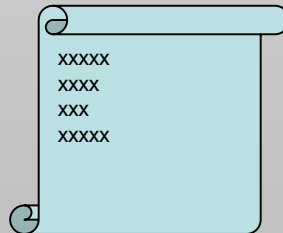
The problem?



Track is known



**Data provided by RU
RSRD²**



**Mileage counter
on the wagon**

Timely
Reliable
Precise

Mileage

Precision?



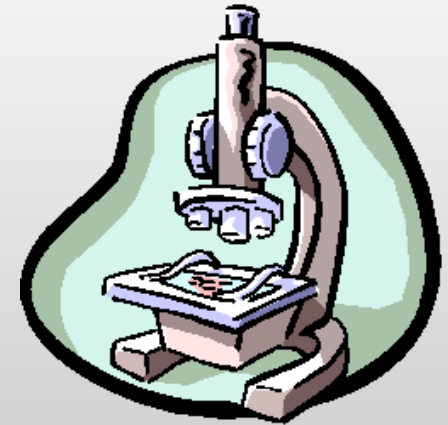
ECM

„I roughly know it“



Certification body

„Be reasonable“



State attorney

???

→ RISK

IV 10.e – Calibration

Measure it precisely

- What needs calibration and what not?
- Identification
- Calibration intervals?
- In-house calibration?



10. When the documentation process is applied to the maintenance delivery function, at least the following elements must be recorded:

(e) the validity of the previous measuring results when a measuring instrument is found not to conform to requirements.

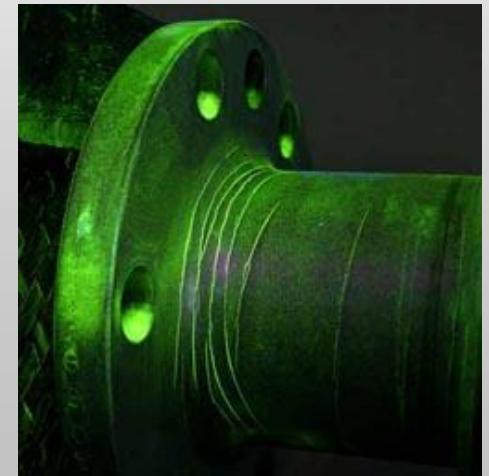




Welding

- Crucial for maintenance level (3), 4, 5
- Certification systems exists
- Certification bodies rely on
 - Welding: EN 15085-2 (and EN ISO 3834)
 - NSA RID 6.8.2.1.23 welding acceptance
 - NDT: EN ISO 9712

Non Destructive Testing



Summary

Positive

- One system in EU
- OTIF joined
- 445 is clever
- Good to use in practice

Negative

- Accreditation, Recognition, NSA
- Application not the same all over Europe



Thank you for your attention

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