



## Smart Tachograph – The New Tachograph Generation Transition and the Tachograph manufacturer's approach to it

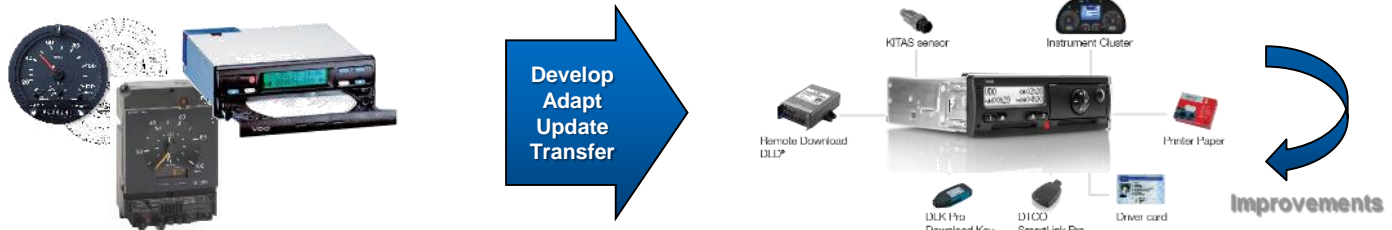
IRU and CORTE Meeting in Brussels on 7<sup>th</sup> of February 2018

by Egon Warkentin

# Introduction of the new tachograph generation

## Historical development of the tachograph system

- › The tachograph business is currently passing through the second loop of generation change:
  - › Analogue to Digital Tachograph in 2006



- › Digital to Smart Tachograph in 2019



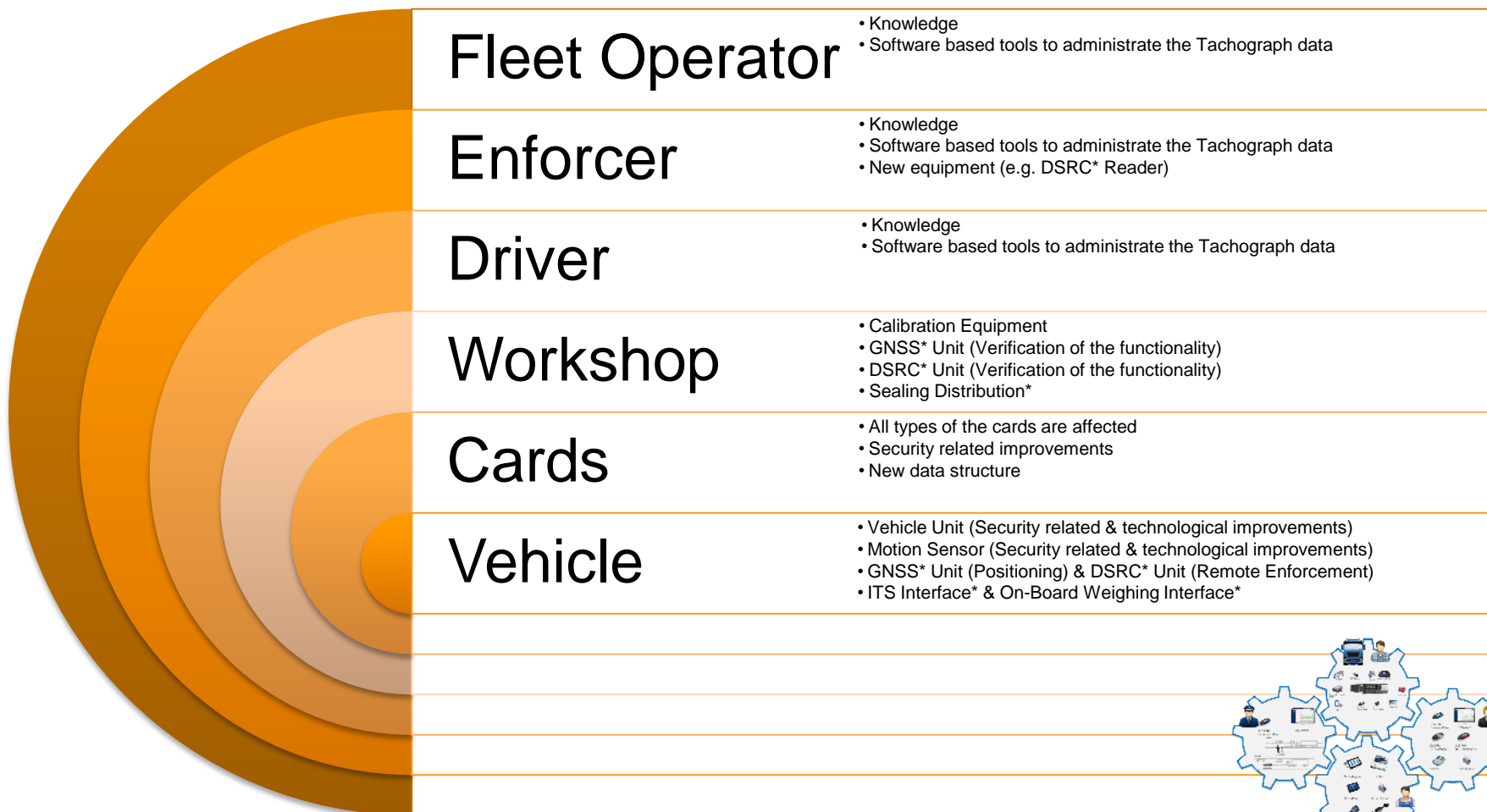
- › The new technologies to be implemented in the tachograph system are a challenge but also an opportunity for all stakeholders
- › A successful introduction of the new generation will be made possible through close collaboration between stakeholders and can be used as a blueprint for future projects, e.g. **On-Board Weighing System**

# Areas affected by Transition towards Smart Tachograph

## Tachograph as a part of an interlocked system



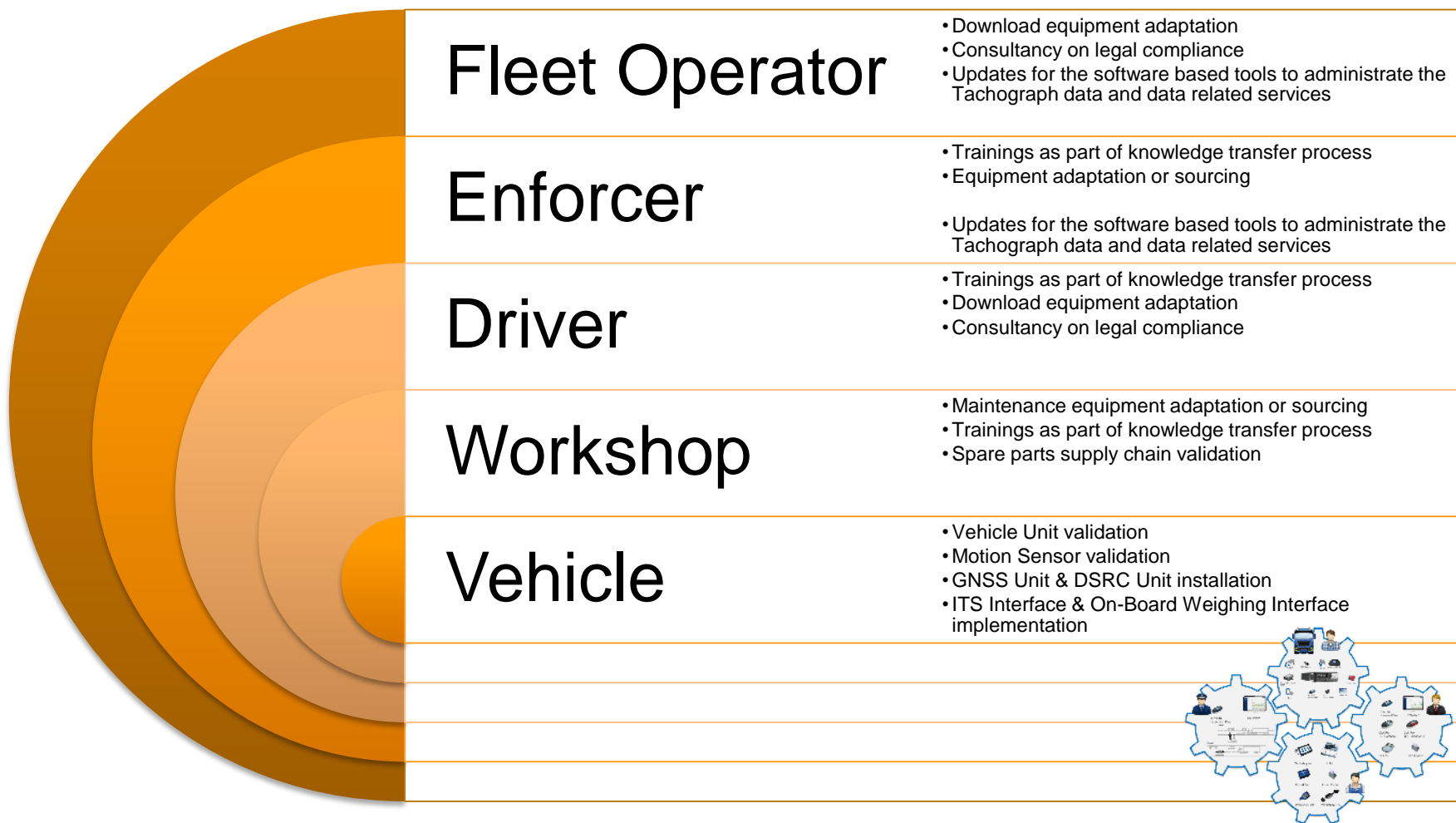
# Areas affected by Transition towards Smart Tachograph Equipment, Stakeholder and Processes



\* addition to already known or existing elements

# Areas of activity for a Tachograph Manufacturer

Some examples for the areas of activity



# Areas of activity for a Tachograph Manufacturer

## Detailed examples for the areas of activity

### › VEHICLE UNIT

#### › Security improvements:

- Improvements on hardware and software
- Implementation of the new tampering measures
- Interoperability between the generations

#### › New interfaces:

- Interoperability between communication partners -> standardisation
- Verification of the functionality (DSRC & GNSS in WS)
- Implementation into the vehicle architecture

### › MOTION SENSOR

#### › Security improvements:

- Improvements on hardware and software
- Implementation of the new tampering measures
- Interoperability between VU manufacturers
- Interoperability between the generations
- Adaptations due to new requirements for sealing

### › MANAGED SERVICES

#### › New data structure

- Update of the download and analysis tools

#### › Additional data due to the new interfaces

- Implementation of the new services
- Adaptation or improvement of the existing services



**Thank you**  
for your attention!