

Eress Forum 2018

Workshop 2: The Future of Energy Metering Data

## Data security basics

- Standardisation – Regulation
- IEC TC65 – IEC 62443-x-x is a horizontal standard
- Railway Perspective - Overview related committees

# Data security basics

## Standardisation - Regulation

### Standardisation

- CEN CENELEC Cybersecurity Focus Group (CEN, CENELEC and ETSI)
- Technical Committees at CENELEC, CEN and ETSI

Keep in mind:

What can be standardised?

- Basic requirements for process on IT-security
- Principles of risk analysis and life-cycle
- ...

What cannot be standardised?

- Fast changing requirements
- Threat landscape
- ...

### EU Regulation

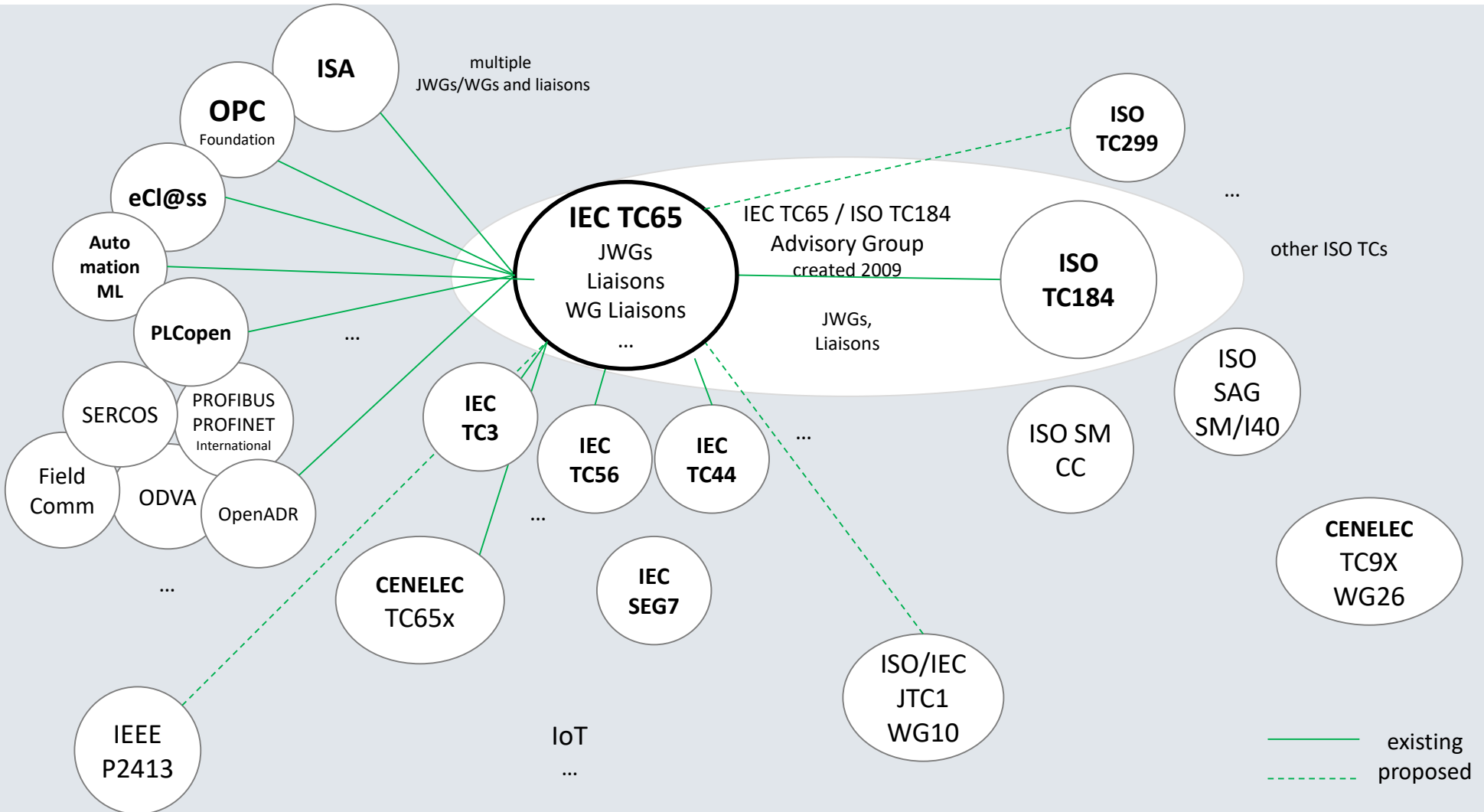
- EU Cybersecurity Agency (Cybersecurity Act) from 13.9.2017 (COM(2017) 477 final):
  - In discussion: cybersecurity certification scheme vs. conformity and certification scheme
- NIS Directive (EU) 2016/1148 Network and Information Systems

**ENISA** - European Union Agency for Network and Information Security

- centre of expertise for cyber security in Europe

# Data security basics

## IEC- Cooperation with committees and consortia

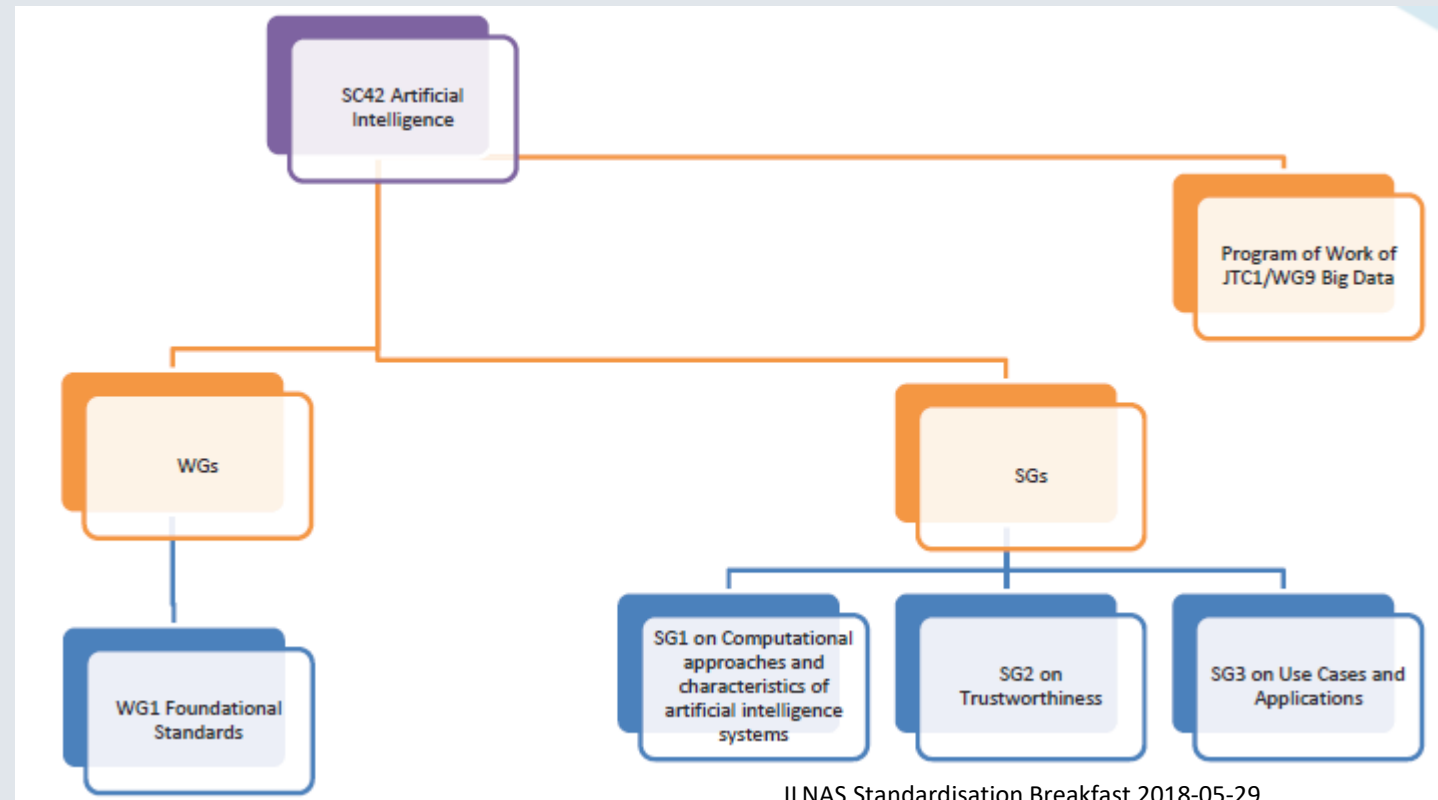


Source: CENELEC TC65X meeting 2017 / Milano, modified

# Data security basics

## ISO JTC 1 - New SC42 “Big Data”

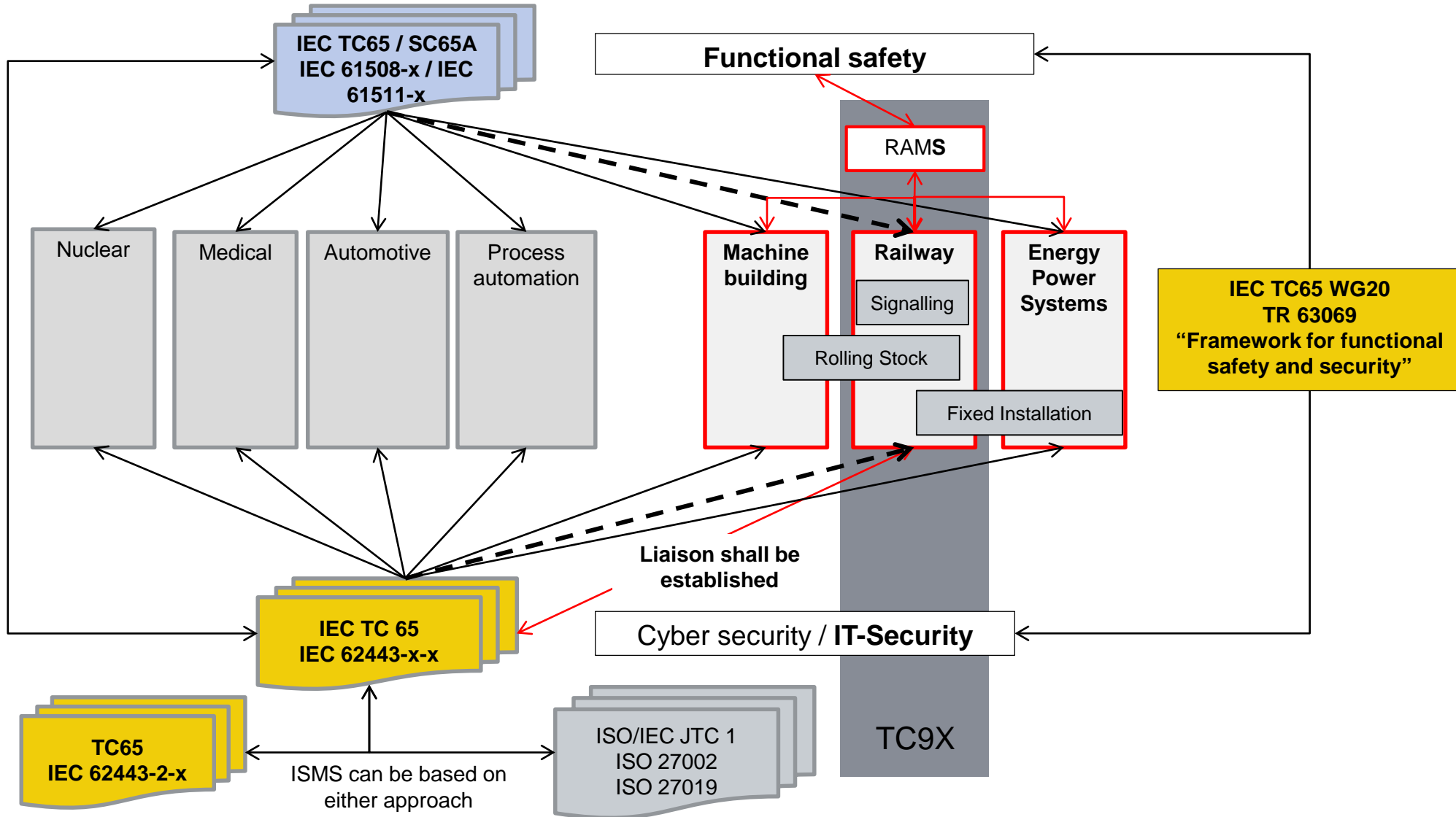
### ISO JTC 1/WG 9 Big Data to JTC 1/SC 42



JTC: Joint Technical Committee

# Data security basics

IEC TC65 – IEC 62443-x-x is a horizontal standard



# Data security basics

## IEC 62443 Series - Structure

<b>General</b>	IEC 62443-1-1:2009 Terminology, concepts and models	IEC TR 62443-1-2 Master glossary of terms and abbreviations	IEC TS 62443-1-3 System security compliance metrics	IEC TR 62443-1-4 IACS security lifecycle and use-cases
<b>Policies &amp; Procedures</b>	IEC 62443-2-1:2010 (EN) Establishing an industrial automation and control system security program	IEC TR 62443-2-2 Guidance for an IACS security management system	IEC TR 62443-2-3: 2015 Patch management in the IACS environment	IEC 62443-2-4:2015 Security program requirements for IACS service providers
<b>System</b>	IEC TR 62443-3-1:2009 Security technologies for industrial automation and control systems	IEC 62443-3-2 Security risk assessment and system design	IEC 62443-3-3:2013 (EN) System security requirements and security levels	
<b>Component</b>	IEC 62443-4-1:2018 Secure product development lifecycle requirements	IEC 62443-4-2 Technical security requirements for IACS components	IACS: Industrial automation and control system	

# Data security basics

## IEC 62443 Series - Structure

<b>General</b>	IEC 62443-1-x	
<b>Policies &amp; Procedures</b>	IEC 62443-2-x	Security Management System Security Assurance - Framework Reference Architecture, Requirements Security Level – achieved (SL-A) Risk profile
<b>System</b>	IEC TR x	Security Assurance - requirements Reference Architecture, zone – conduits Security Level – target (SL-T)
<b>Component</b>	IEC 62443-4-x	Security by design Security Assurance - product Protection profiles Security Level – capability (SL-C)

# Data security basics

## Railway Perspective - Overview related committees

### Industrial-process measurement, control and automation

#### IEC TC65 / CENELEC TC65X

- TC65 WG10 - IEC 62443 series
- TC65 WG20 - Framework to bridge the requirements for safety and security

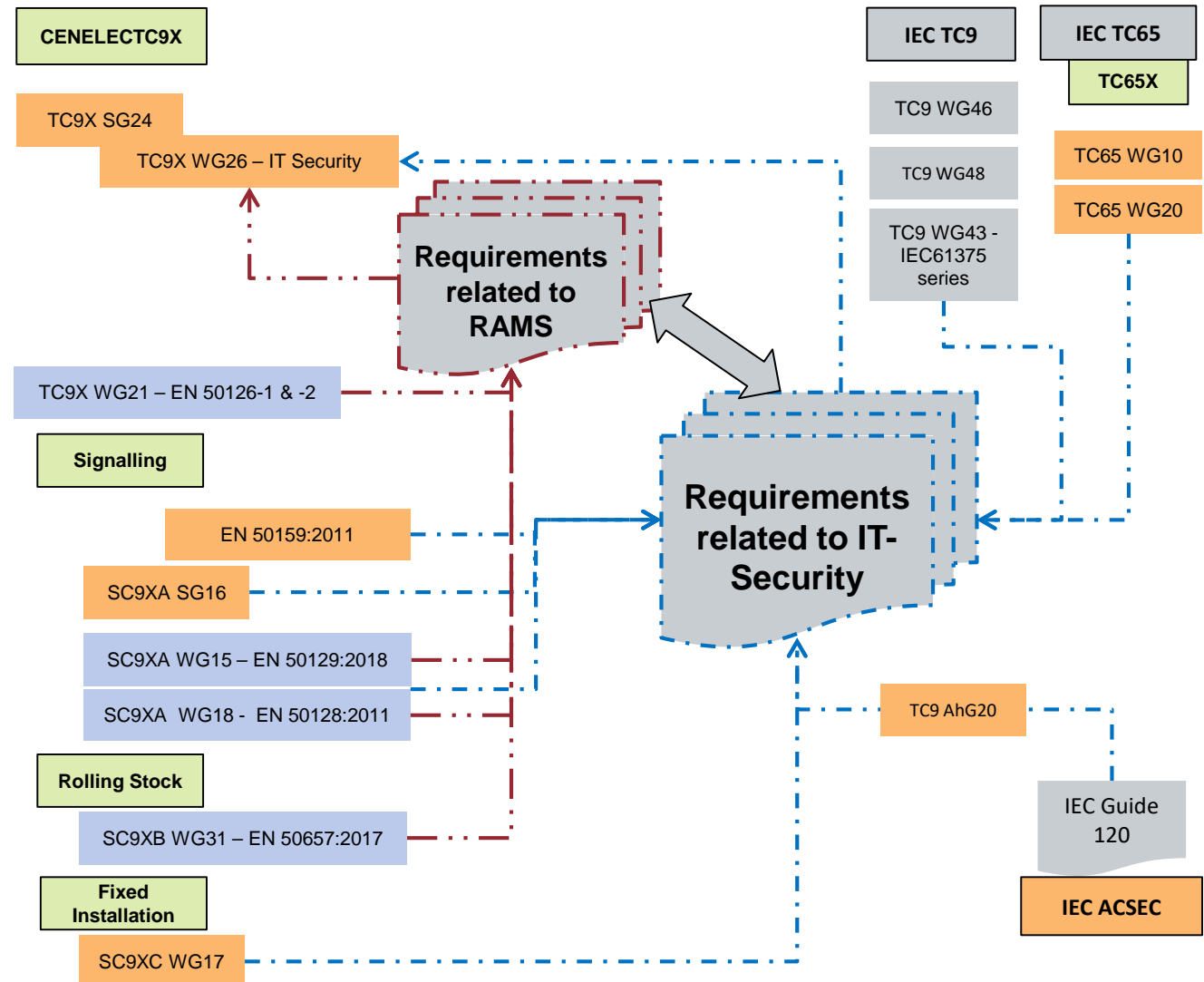
### Electrical equipment and systems for railways

#### IEC TC9

- TC9 WG43 - Train communication network (TCN)
- TC9 WG46 Onboard multimedia systems for railways
- TC9 WG48 – ODIS, On board Driving Information System
- TC9 AhG20 - IEC Guide 120

#### CENELEC TC9X

- TC9X WG26 „IT-Security for Railway“





Thank you for your attention