



The Standards People

# ETSI Study on Globalisation of Trust

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For: **Tokyo Workshop on  
Globalisation of Trust Services**

23.05.2019

# Agenda

- Background
- Study Aims
- Methodology
- Final points



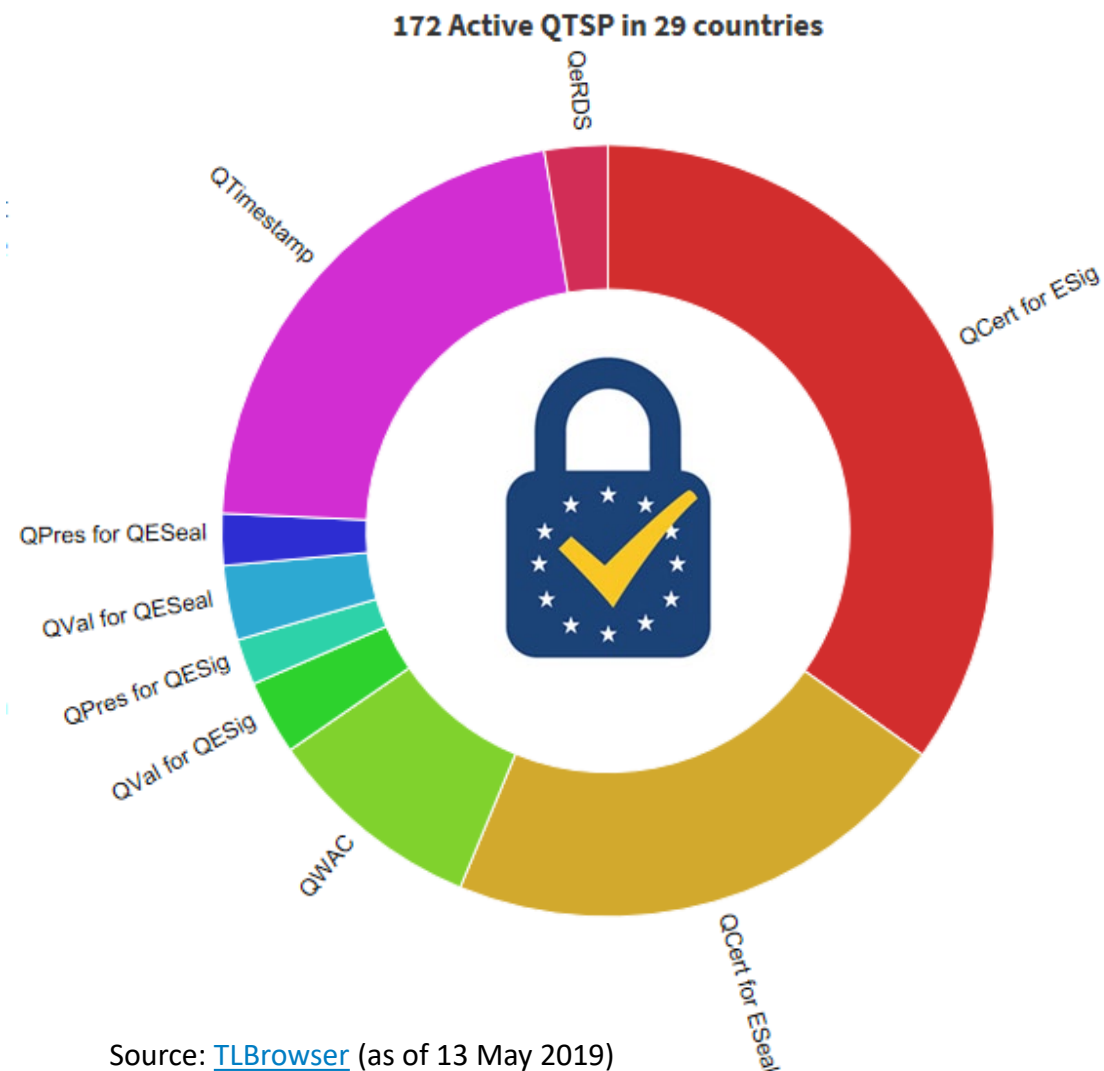
# Background EU Trust Services

## eIDAS EU Regulation 910/2014

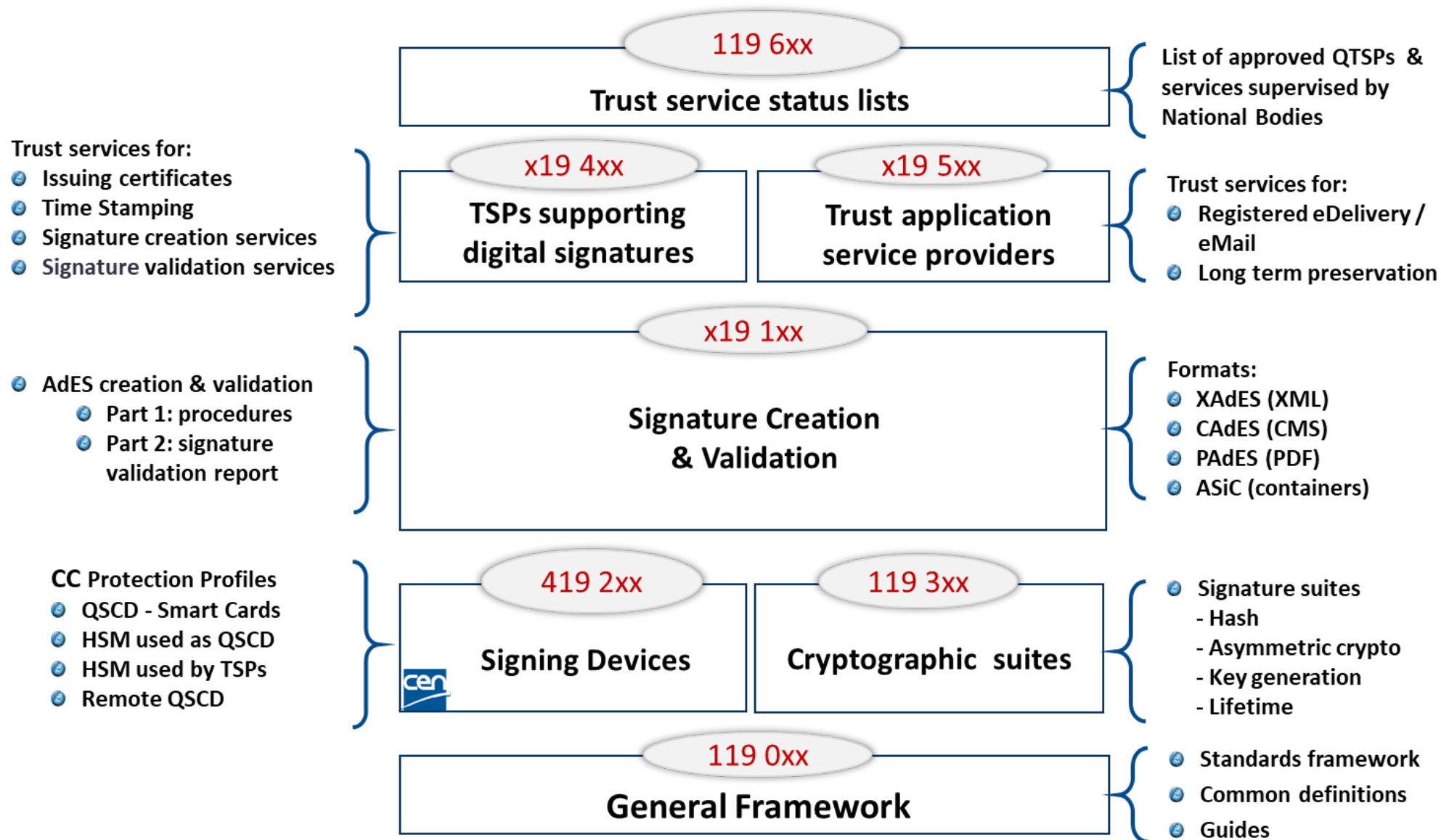
- Establishes legal framework for (qualified) trust services in the EU

## ETSI TC Electronic Signatures and Infrastructures (ESI)

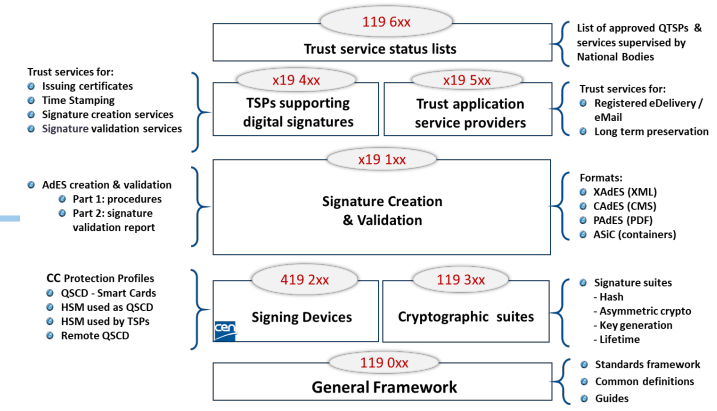
- Defines standards for trust services



# ETSI Standards for Trust Services



# ETSI Standards for Trust Services



## Examples:

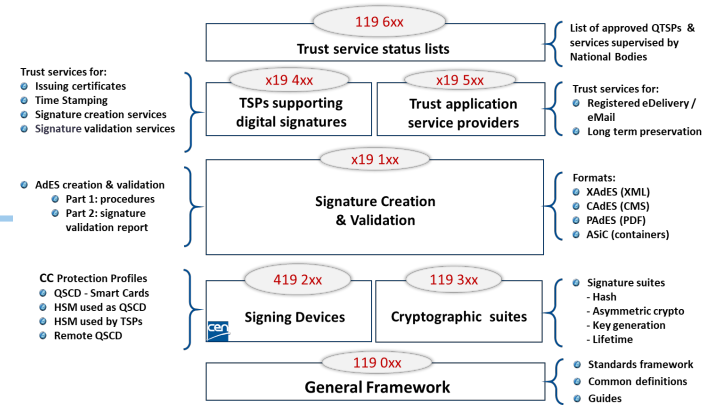
### ➤ Conformity assessment:

- EN 319 403: Requirements for conformity assessment bodies assessing Trust Service Providers

(supplements ISO/IEC 17065:2012 Conformity assessment – Requirements for bodies certifying products, processes and services)

- TS 119 403-3: Additional requirements for conformity assessment bodies assessing EU qualified trust service providers  
(e.g. requirements on conformity assessment reports)

# ETSI Standards for Trust Services



## Examples:

- Trust Service Providers (TSPs) issuing certificates
  - EN 319 401: Policy requirements for TSPs
  - EN 319 411:
    - Part 1: Policy requirements for TSPs issuing certificates
    - Part 2: Policy requirements for TSPs issuing EU qualified certificates
  - EN 319 412 series (certificate profiles)
- TS 119 612: Trusted list of TSPs & Trust Services

# Known Examples of Adoption of ETSI Standards Worldwide










- CA/Browser Forum recognises EN 319 403 audit and EN 319 411-1 policy requirements in its guidelines
- Japan standards for trust services based on ETSI standards
- Several South American countries adopt controls similar or equivalent to ETSI Standards
- Some African and Middle Eastern countries have adopted ETSI standards (either at TSP level or at secondary legislation level)
- Swiss regulations reference EN 319 411-2 and EN 319 412 series
- SAFE-BioPharma equivalence mapping to EN 319 411-1/2
- TS 119 612-based Trusted Lists are used on 4 continents ...



# STF 560 Study Aims

## ➤ Investigate PKI-based trust service schemes and their trust model around the world

- [Questionnaire](#)
- Desktop research
- Regional Workshops:
  - Middle East and Africa (02 May – [Dubai](#))
  - Asia (23 May – [Tokyo](#))
  - Central & South America (27 June – [Mexico](#))

		
<p>  Dubai, UAE   2 May 2019 <a href="#">MORE</a> </p>	<p>  Tokyo, Japan   23 May 2019 <a href="#">MORE</a> </p>	<p>  Mexico City, Mexico   27 June 2019 <a href="#">MORE</a> </p>
<p> <a href="#">ETSI / TRA Middle East and Africa Workshop on Globalisation of Trust Services</a>            ETSI and the Telecommunications Regulatory Authority (TRA) of the United Arab Emirates (UAE) are co-...         </p>	<p> <a href="#">Tokyo Workshop on Globalization of Trust Services</a>            Keio University (慶應義塾大学), the Japan Institute for Promotion of Digital Economy and Com...         </p>	<p> <a href="#">ETSI / LOGALTY LATAM Workshop on Globalisation of Trust Services</a>            ETSI and LOGALTY are co-organising in Mexico City CDMX a workshop for LATAM on Globalisation of Trus...         </p>

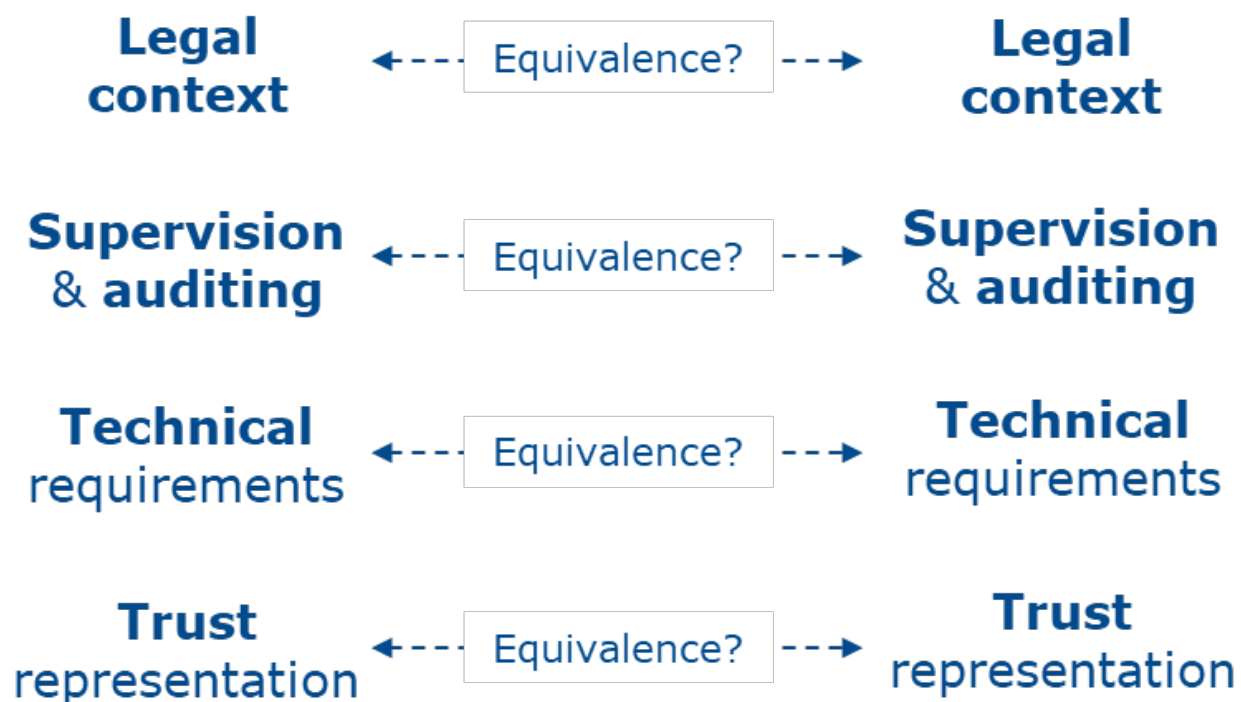
## ➤ Identify technical basis for mutual recognition

- Incl. model, barriers, solutions

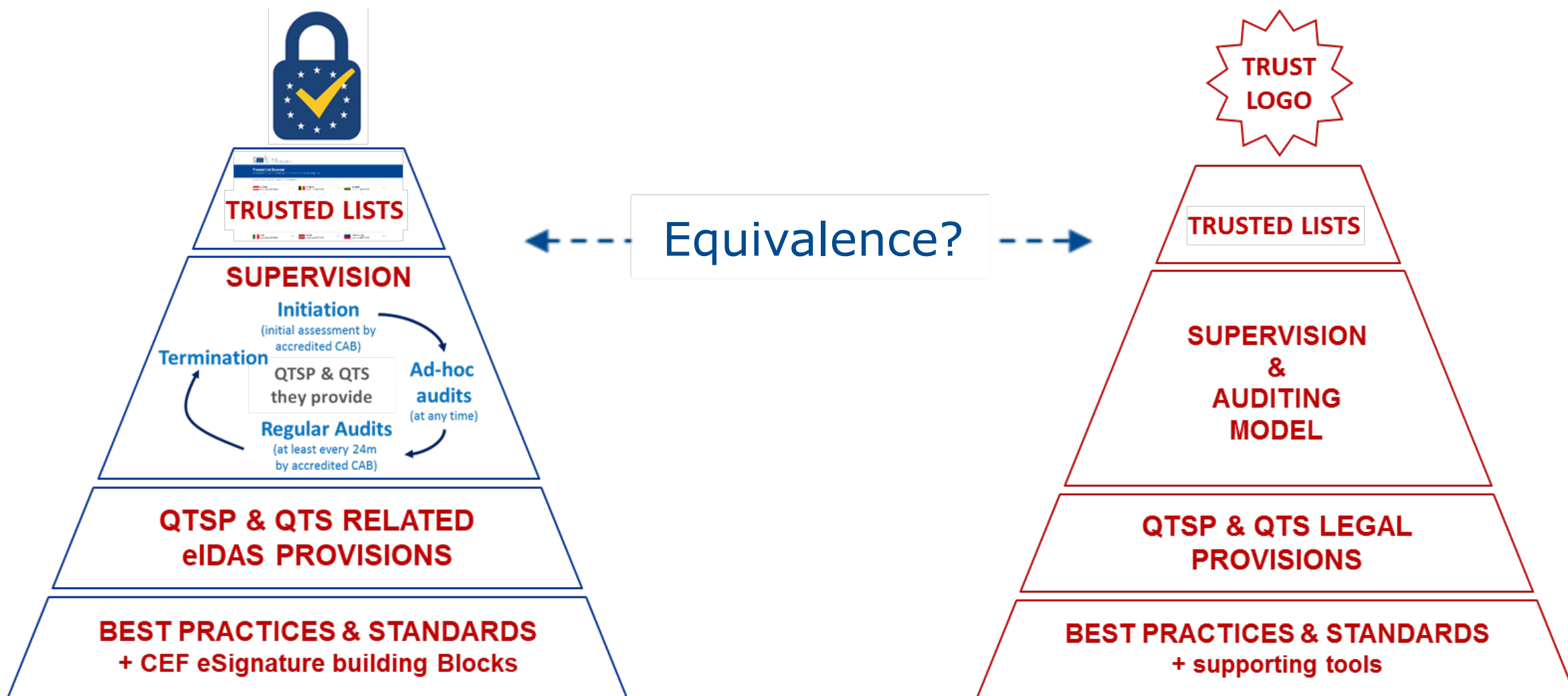


# Methodology

## Main pillars for comparing PKI-based trust service schemes (e.g. in a view of establishing recognition)

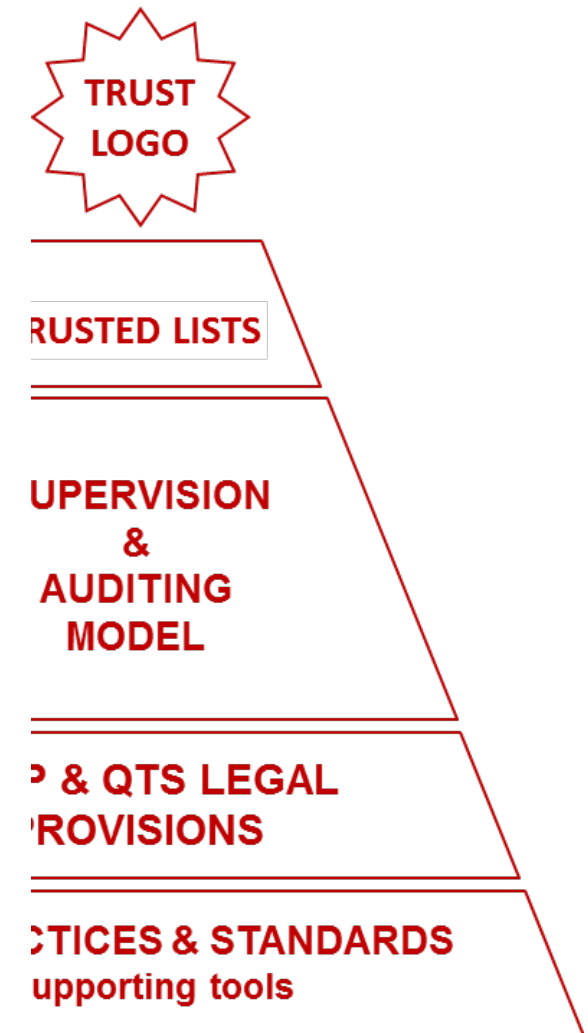
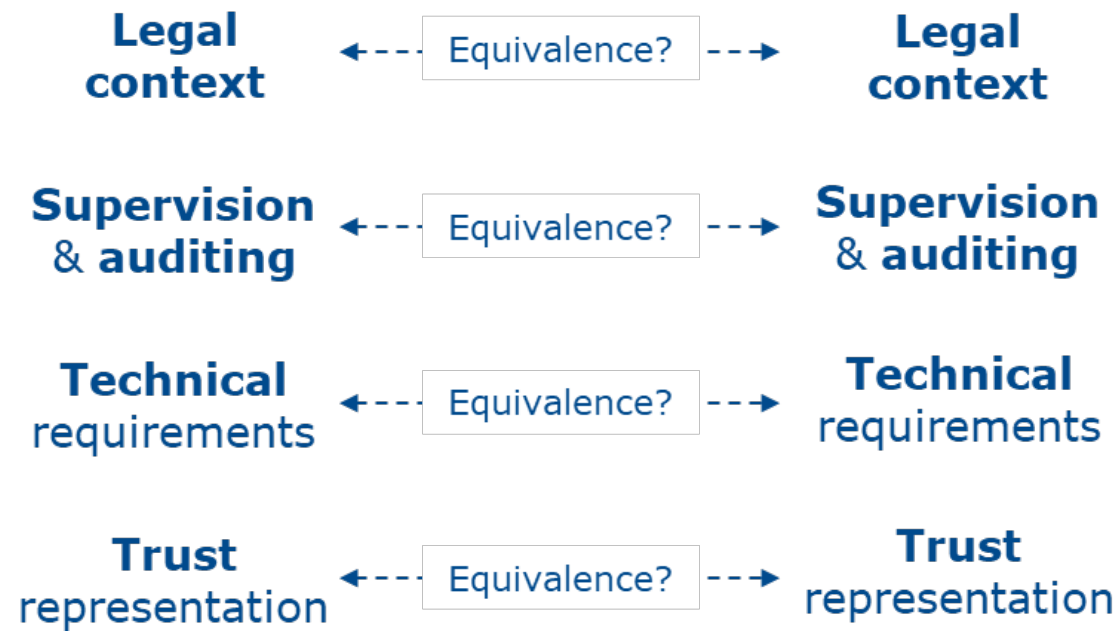
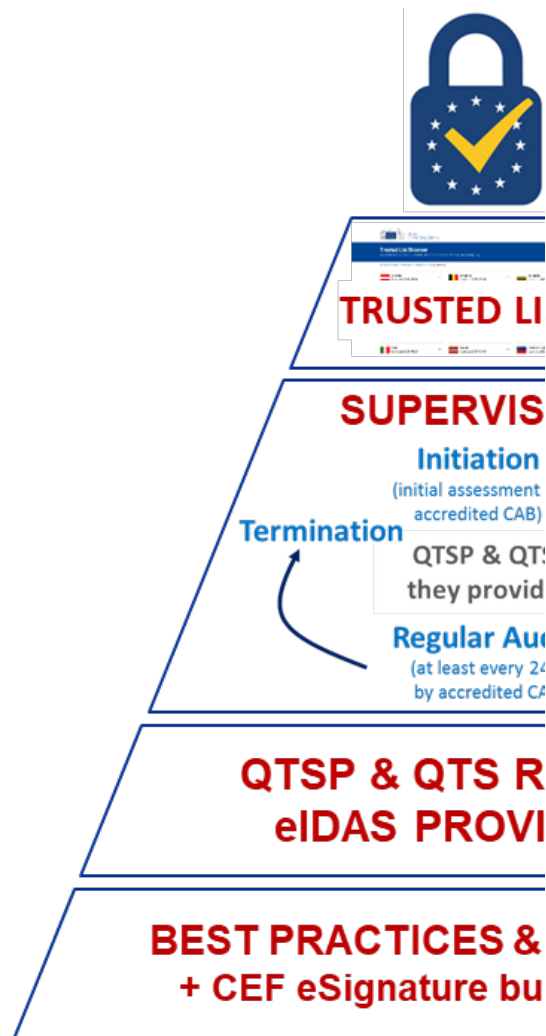


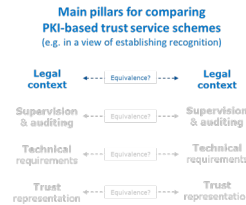
# Methodology



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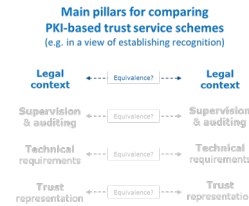
**Legal context**

←--- Equivalence? ---→

**Legal context**



- Regulatory vs contractual
- General principles
  - Non-discrimination against the use of electronic means
  - Technology neutrality (does not prevent being prescriptive with regards to a particular technology)
  - Functional equivalence
  - etc.
- Trust services
  - e.g. Creation / Preservation / Validation of electronic signatures / seals, of electronic time stamps, of electronic delivery services, of certificate for signatures, seals or website (device) authentication, of electronic documents, ...



Legal context

← --- Equivalence? --- →

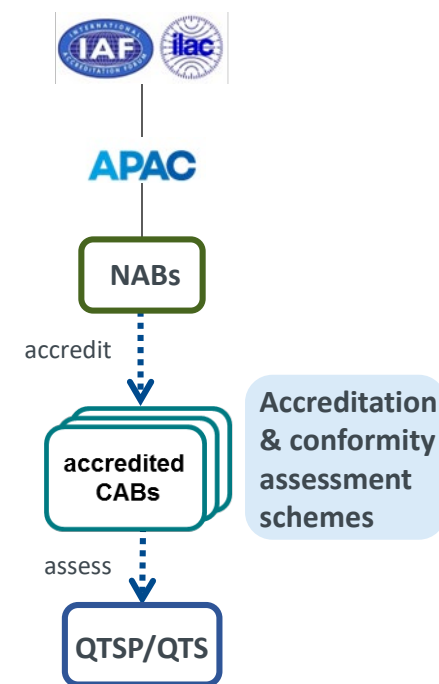
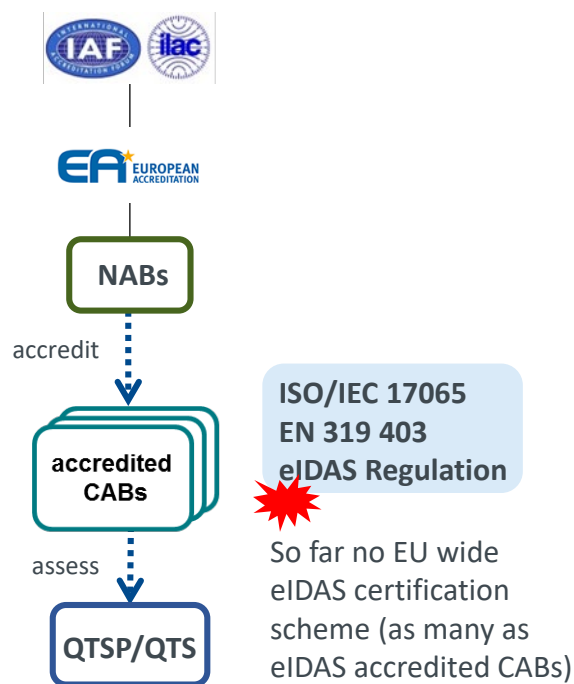
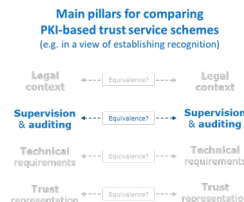
Legal context



...

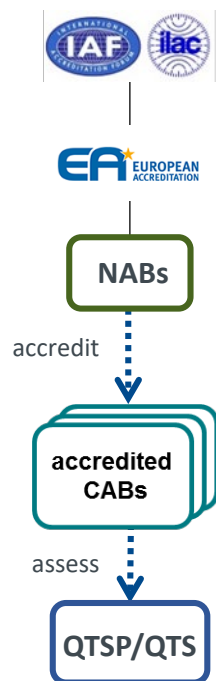
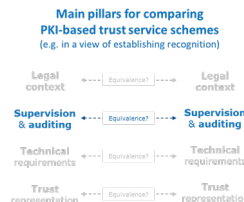
- TSP/TS Levels of reliability
  - e.g. qualified vs non-qualified
- Obligations of TSPs
  - Liability & burden of proof, Accessibility for persons with disabilities, supervision/audits, Correct operations, Security risks management, Security/Personal data breach notifications, Data protection, Staff, Operations changes and termination, Insurances/Financial resources, Data recording, ...
- User obligations
- International aspects (mutual recognition)

# Methodology



- Authorities approving (accrediting) auditing bodies
- Auditing bodies approval (accreditation) scheme
- Requirements on auditing bodies
  - Type of bodies
  - Conduct of assessment
  - Skills / competences
- Auditing (certification) scheme
- Assessment against what “normative document”
  - Regulation (legal requirements)
  - Technical standard
  - Mix
- Conformity assessment report
- Supervision decision
- Links into trust representation

# Methodology



ISO/IEC 17065  
EN 319 403  
eIDAS Regulation

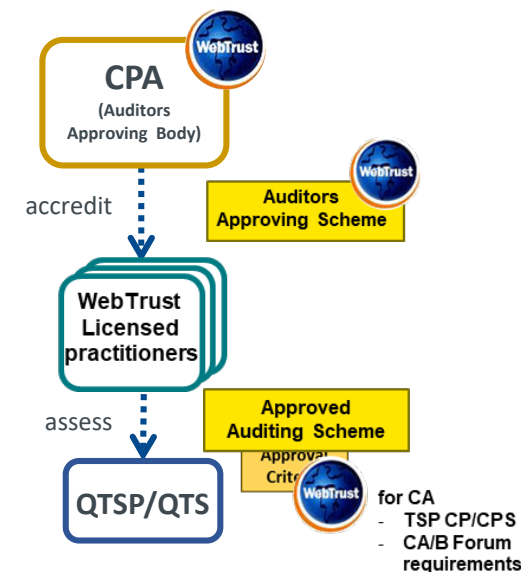
So far no EU wide eIDAS certification scheme (as many as eIDAS accredited CABs)

Supervision & auditing ←--- Equivalence? ---> Supervision & auditing

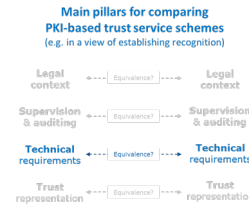
e.g.



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# Methodology



Common technical basis makes easier mutual recognition

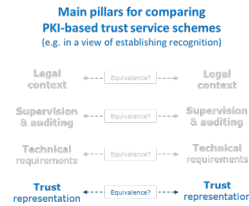
- Best practices
- Interoperability
- Structuring of requirements
  - RFC 3647 for TSP issuing certificates
  - For other types of trust services ?
- Mapping of technical requirements versus legal requirements, when “normative documents” are not standards but laws
- ETSI standards for trust services
- Truly “global” standards



...



# Methodology



- Different models for representing trust
  - Trusted lists
  - Trust anchor stores
  - Bridging

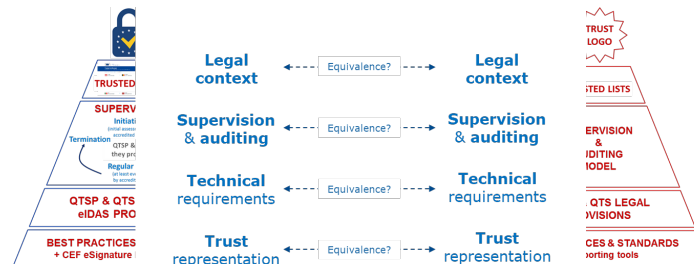


Trusted List

Cross-certification

- Easy to technically map between different trust representations but only meaningful when mapping other pillars

Trust Stores



# Final Points

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- Study report due End 2019
  - Investigate PKI-based trust service schemes and their trust model around the world
  - Identify technical basis for mutual recognition
  - Identify barriers & proposed solutions
  
- Please help by filling in our questionnaire:  
<https://docbox.etsi.org/ESI/Open/workshops/ETSIGlobalQuest.docx>

