

ETSI Study on Globalisation of Trust

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For: **ETSI/TRA workshop (Dubai)**

02.05.2019

Agenda

- Background
- Study Aims
- Methodology
- Final points



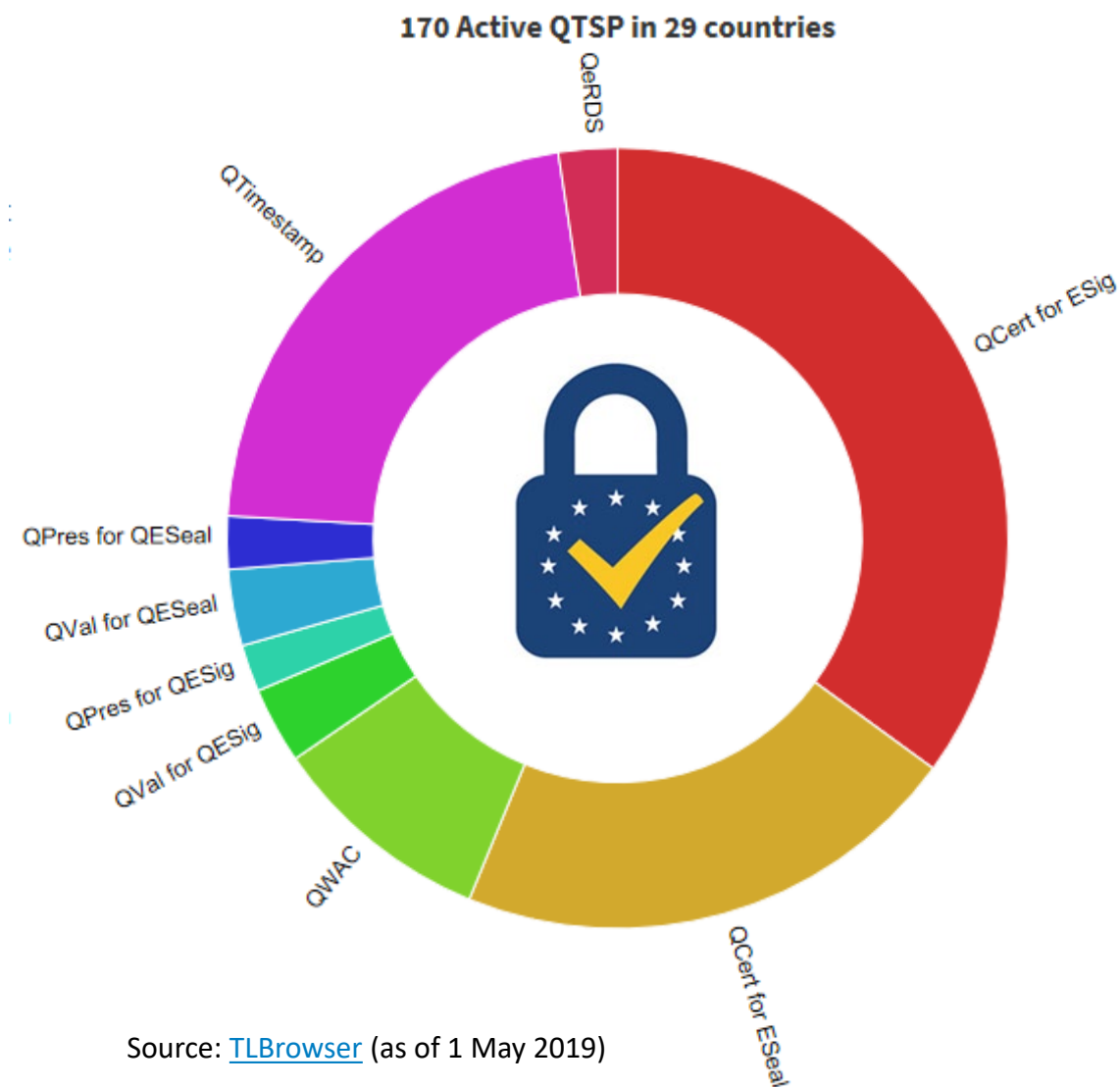
Background EU Trust Services

eIDAS EU Regulation 910/2014

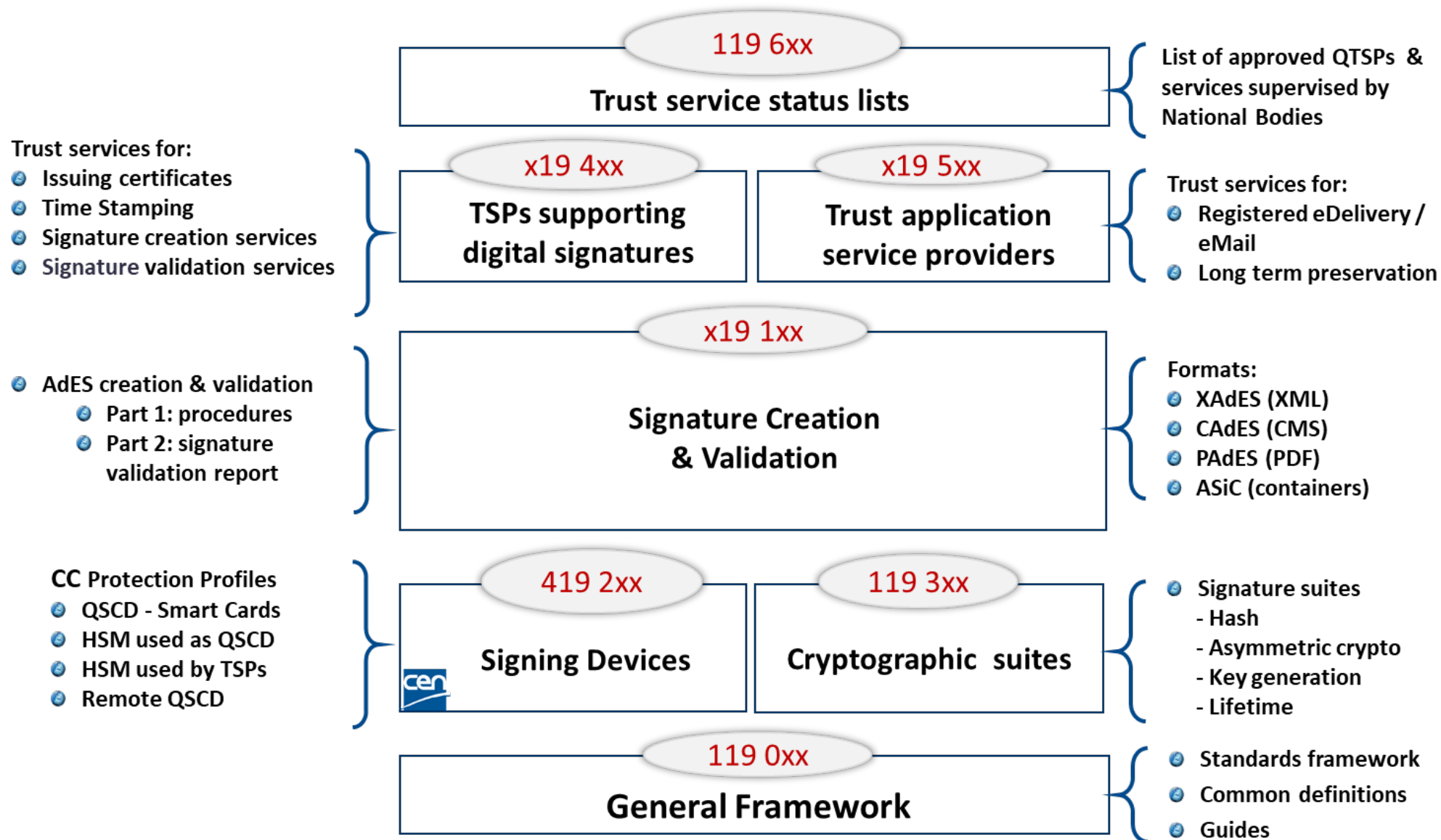
- Establishes legal framework for (qualified) trust services in the EU

ETSI TC Electronic Signatures and Infrastructures (ESI)

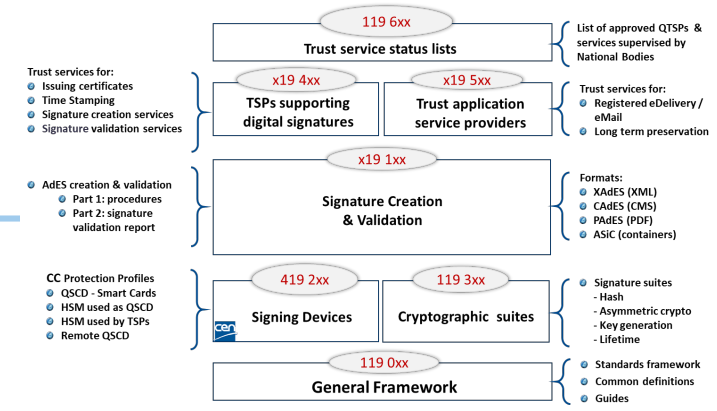
- Defines standards for trust services



ETSI Standards for Trust Services



ETSI Standards for Trust Services



Examples:

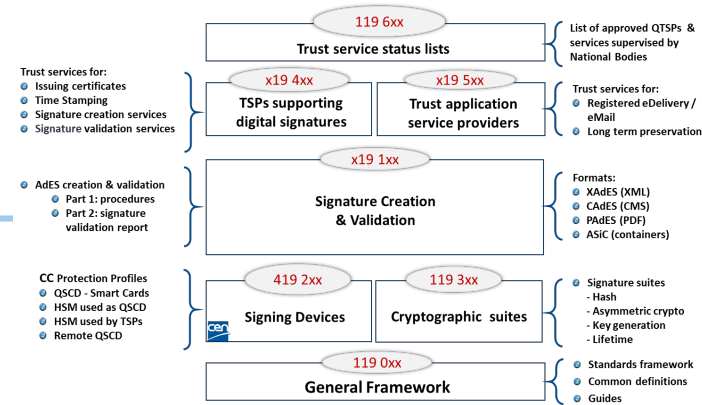
➤ Conformity assessment:

- 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)

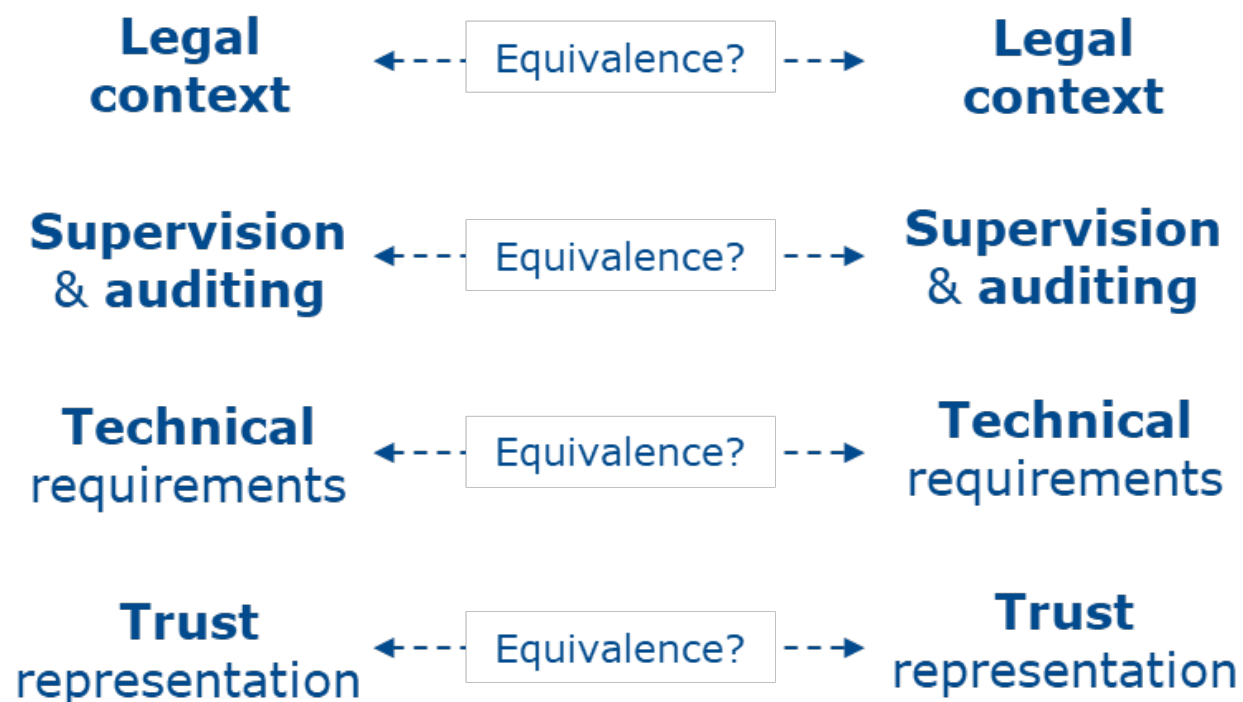
 <p>  Dubai, UAE  2 May 2019 MORE </p> <p> ETSI / TRA Middle East and Africa Workshop on Globalisation of Trust Services </p> <p>ETSI and the Telecommunications Regulatory Authority (TRA) of the United Arab Emirates (UAE) are co-...</p>	 <p>  Tokyo, Japan  23 May 2019 MORE </p> <p> Tokyo Workshop on Globalization of Trust Services </p> <p>Keio University (慶應義塾大学), the Japan Institute for Promotion of Digital Economy and Com...</p>	 <p> logalty AGENDA LATAM Workshop on Globalisation of Trust Services June 27th, 2019 – Mexico City CDMX </p> <p>  Mexico City, Mexico  27 June 2019 MORE </p> <p> LATAM Workshop on Globalization of Trust Services </p> <p>ETSI & Logalty are co-organising ...</p>
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➤ Identify technical basis for mutual recognition

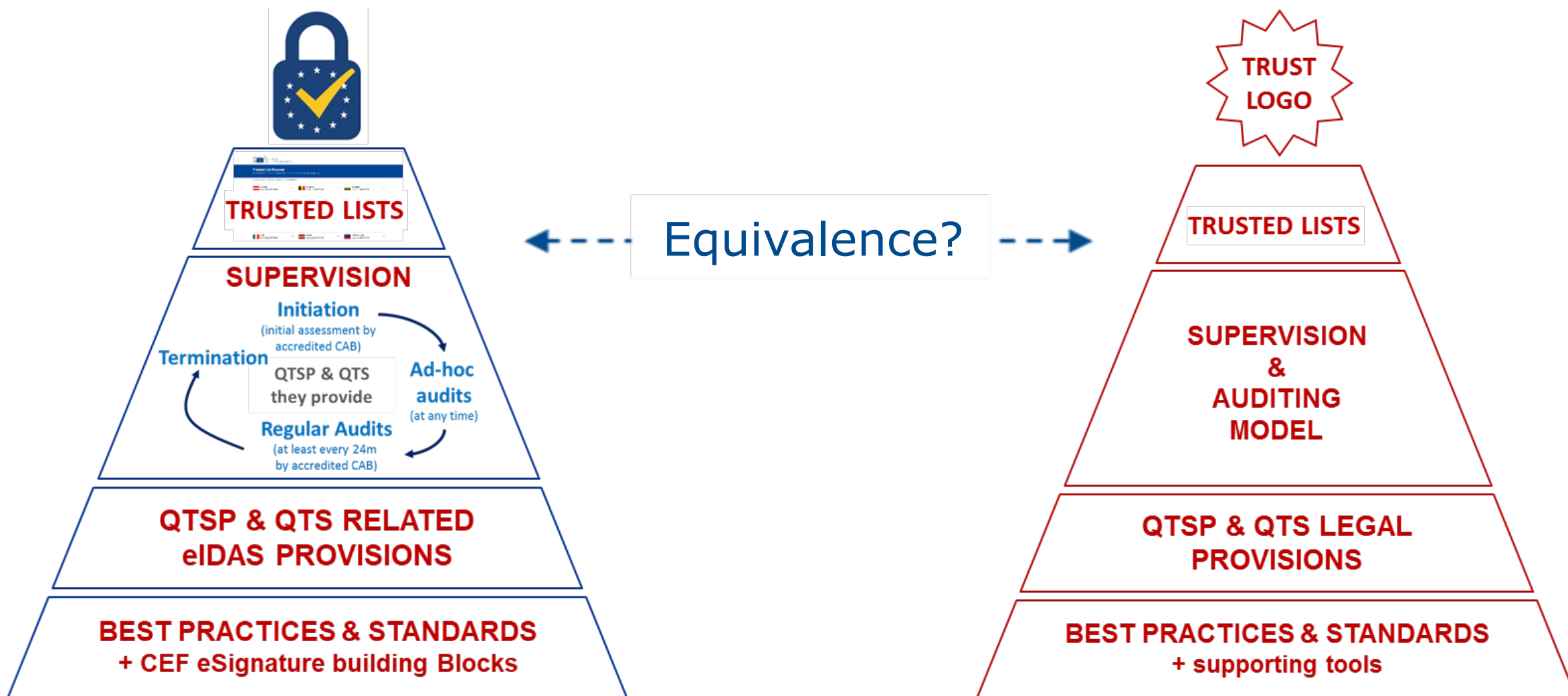
- Incl. model, barriers, solutions

Methodology

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

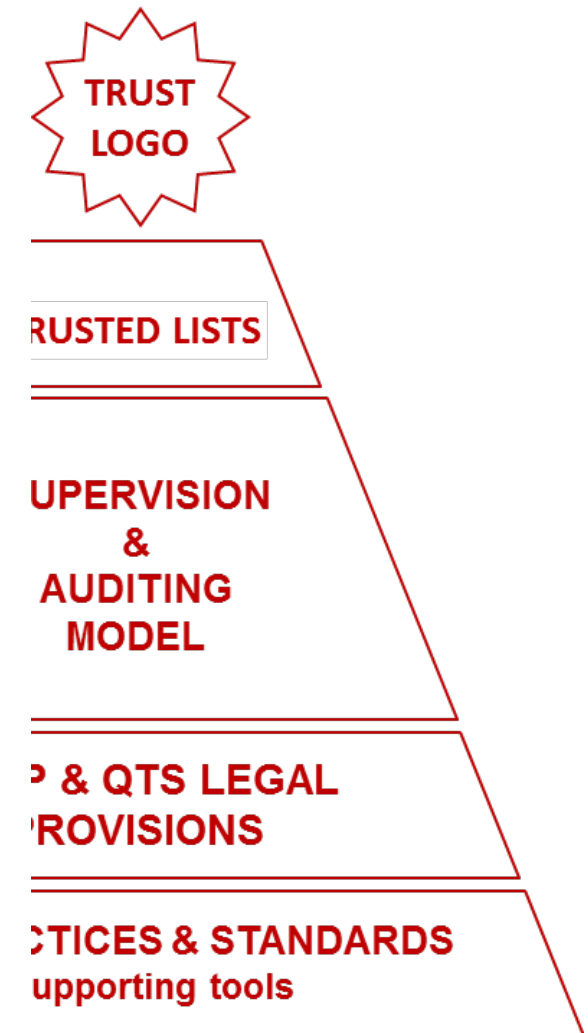
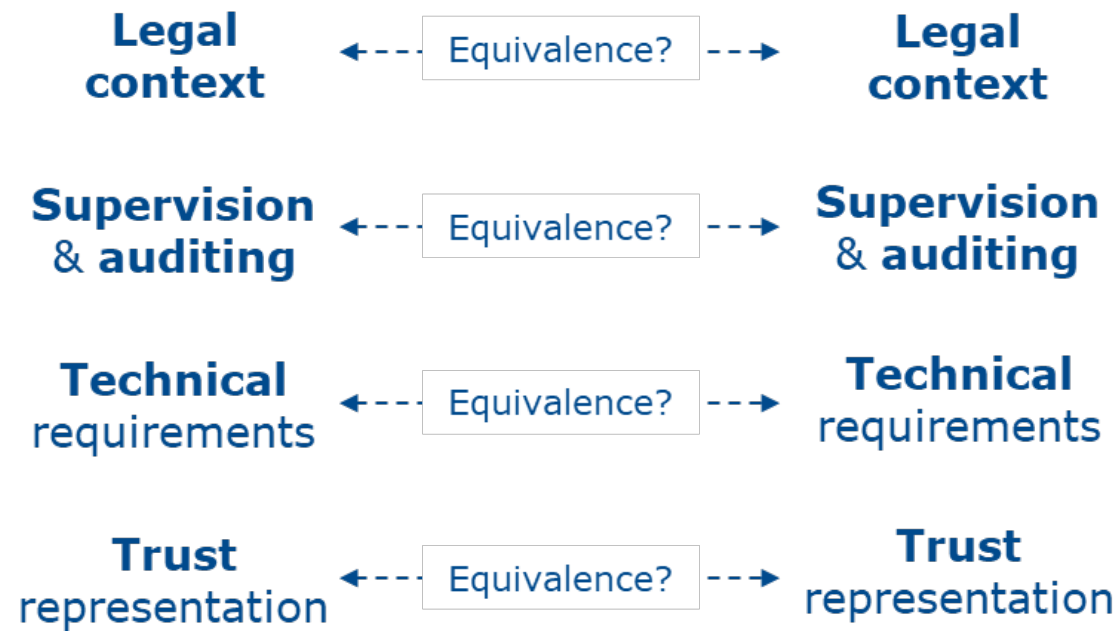
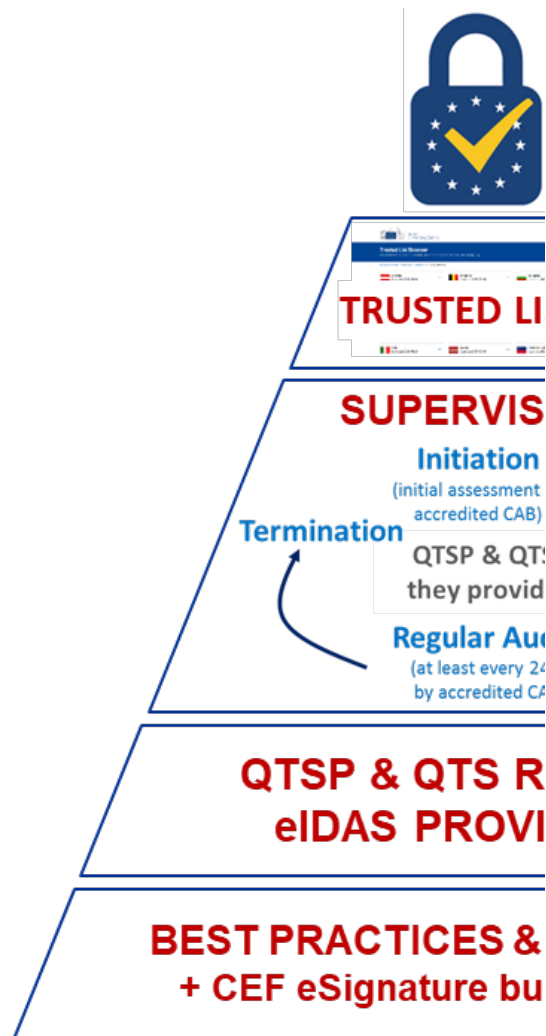


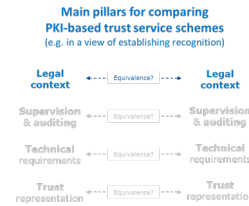
Methodology



Methodology

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





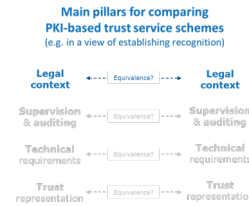
Legal context

←--- 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? ---→

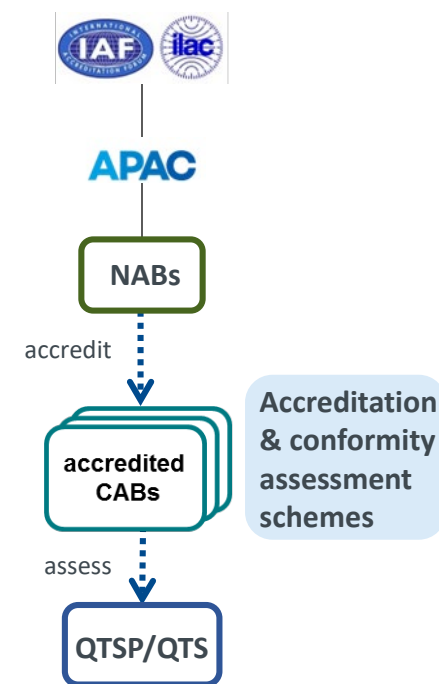
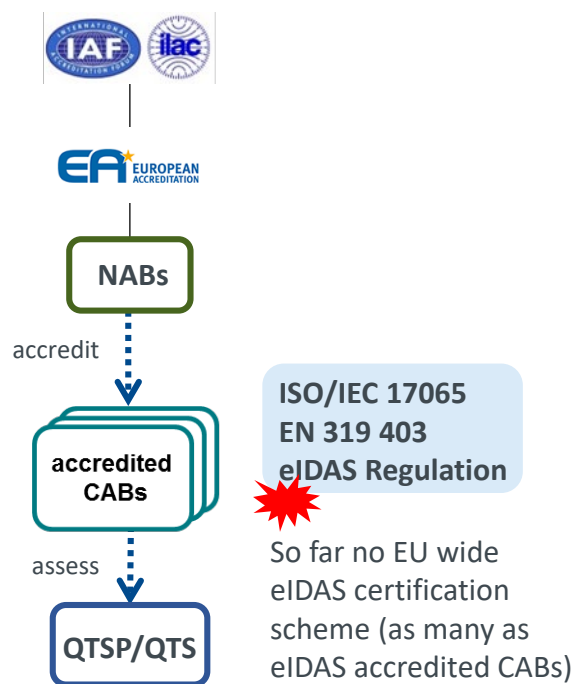
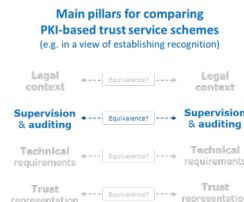
Legal context



...

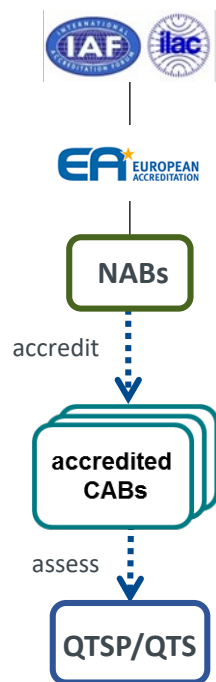
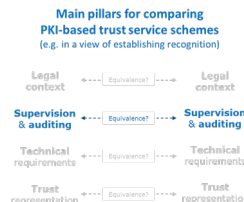
- TSP/TS Levels of reliability
 - e.g. qualified vs non-qualified
- Obligations of TSPs
 - Liability & burden of proof, Accessibility for persons with disabilities, supervision/audits, Correct operations, Security risks management, Security/Personal data breach notifications, Data protection, Staff, 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

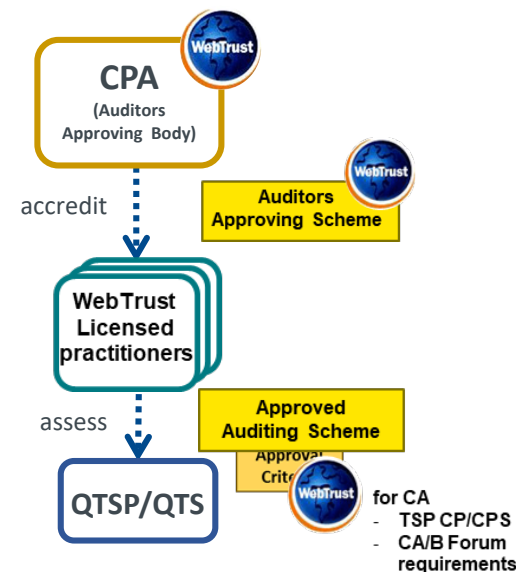
So far no EU wide eIDAS certification scheme (as many as eIDAS accredited CABs)

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

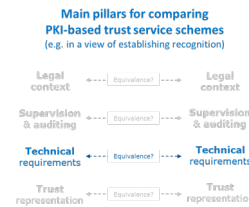
e.g.



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Methodology



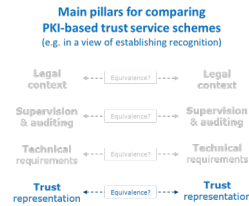
Common technical basis makes easier mutual recognition

- 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

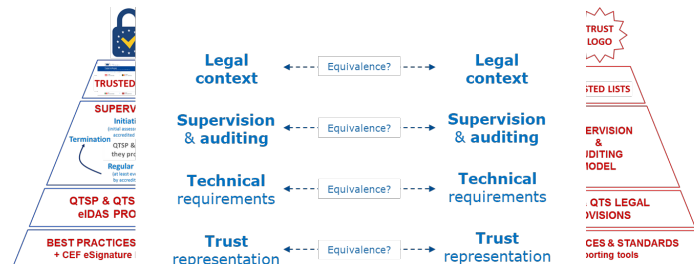
- Easy to technically map between different trust representations but only meaningful when mapping other pillars



Trusted List

Cross-certification

Trust Stores



Final Points

- 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>

