The Standards People

ETSI Study on Globalisation of Trust

Presented by: **Olivier DELOS**

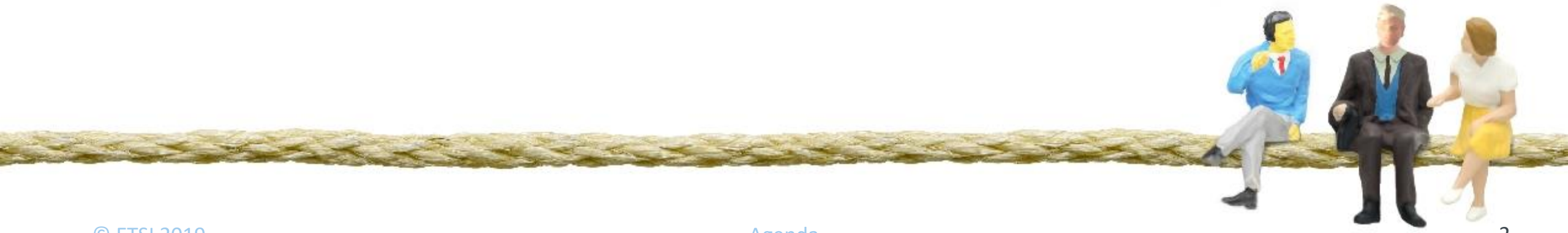
For: **Ciudad de México - Workshop on Globalisation of Trust Services**

27.06.2019

© ETSI 2019

Agenda

- Background
- Study Aims
- Methodology
- Final points



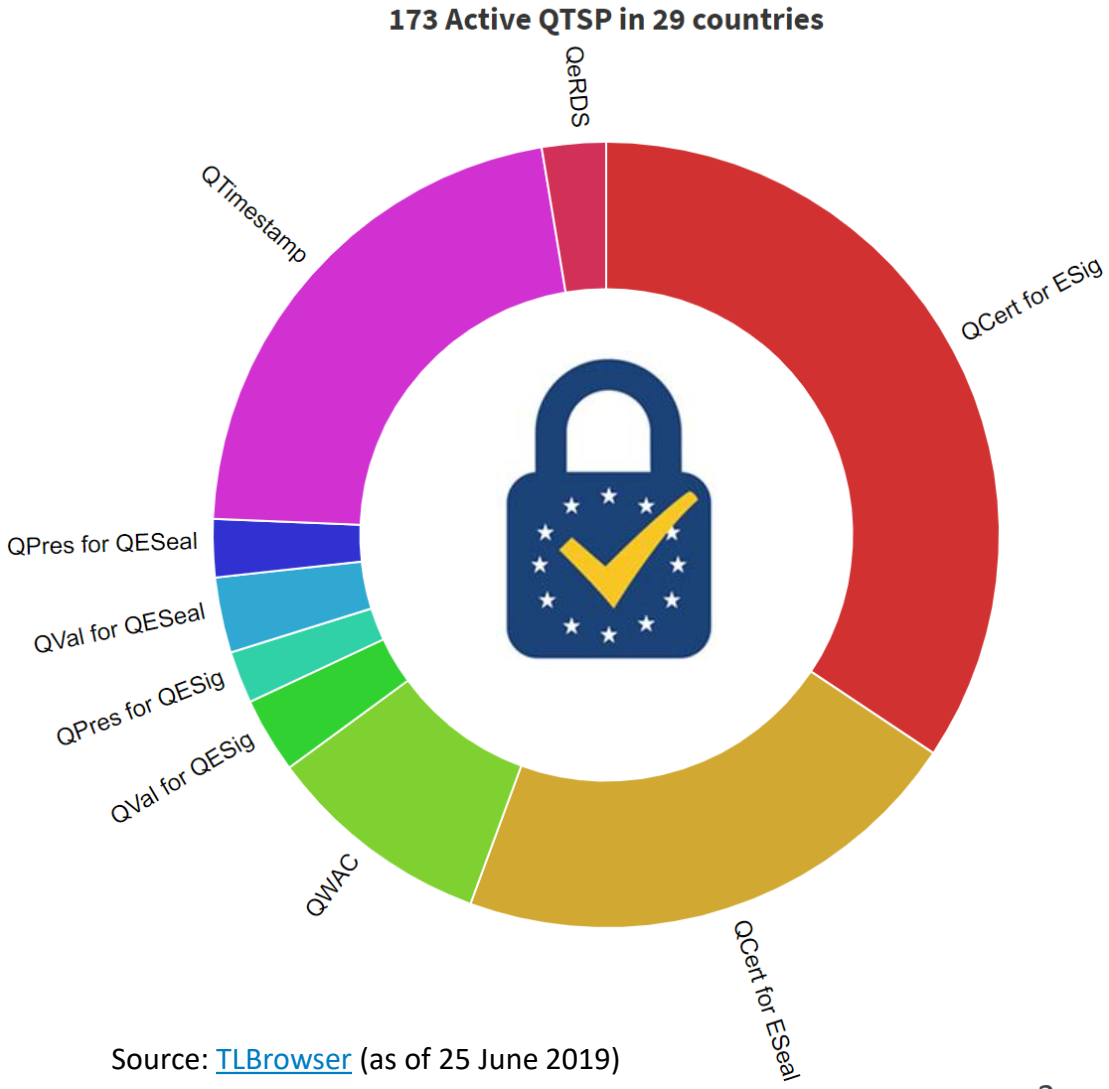
Background EU Trust Services

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



Source: TLBrowser (as of 25 June 2019)

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)
    - North America (3 September - New York)
- Identify technical basis for mutual recognition
  - Incl. model, barriers, solutions

Dubai, UAE
2 May 2019 MORE

ETSI / TRA Middle East and Africa Workshop on Globalisation of Trust Services

ETSI and the Telecommunications Regulatory Authority (TRA) of the United Arab Emirates (UAE) are co-...

Tokyo, Japan
23 May 2019 MORE

Tokyo Workshop on Globalization of Trust Services

Keio University (慶應義塾大学), the Japan Institute for Promotion of Digital Economy and Com...

Mexico City, Mexico
27 June 2019 MORE

ETSI / LOGALTY LATAM Workshop on Globalisation of Trust Services

ETSI and LOGALTY are co-organising in Mexico City CDMX a workshop for LATAM on Globalisation of Trus...

New York, US
3 September 2019 MORE

ETSI North America Workshop on Globalisation of Trust Services

ETSI is organizing a workshop on Globalisation of Trust Services for North American stakeholders, at...

Methodology

Main pillars for comparing PKI-based trust service schemes

(e.g. in a view of establishing recognition)

Legal context	←- - - Equivalence? - - →	**Legal context**
Supervision & auditing	←- - - Equivalence? - - →	**Supervision & auditing**
Best practice	←- - - Equivalence? - - →	**Best practice**
Trust representation	←- - - Equivalence? - - →	**Trust representation**

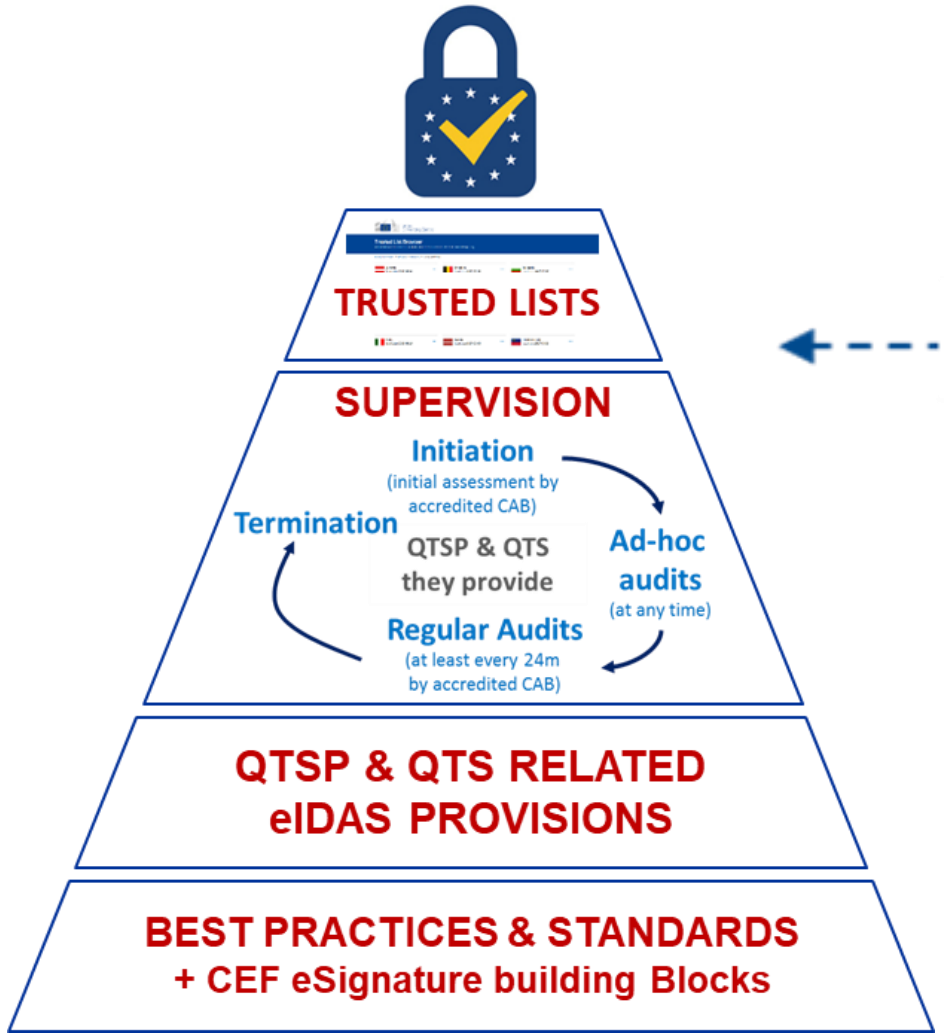
Methodology

Main points for comparison between PKI-based trust service schemes

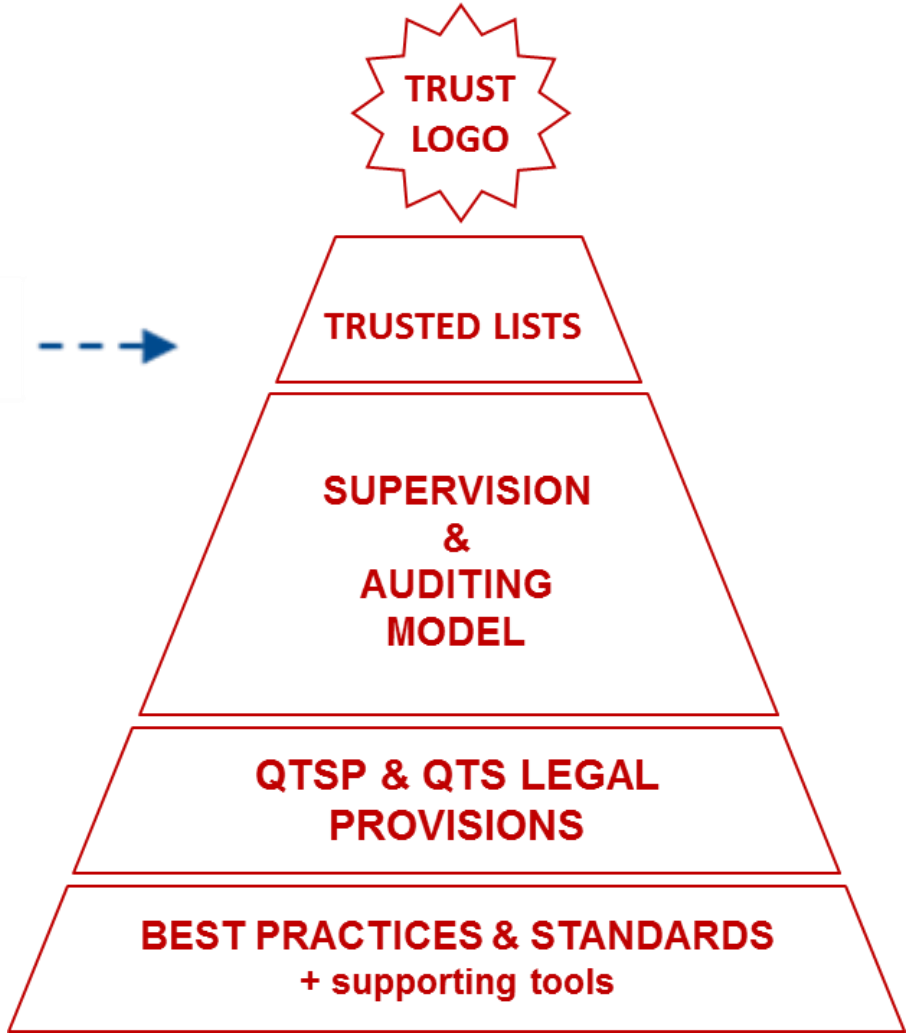
(for each of the four pillars)

Legal context	← Equivalent trust service requirements →	**Legal context**
Supervision & auditing	← Audit & supervision with equivalent oversight →	**Supervision & auditing**
Best practice	← Meeting common requirements for equivalent level of trust supporting interoperability →	**Best practice**
Trust representation	← Mappable to common Trust representation →	**Trust representation**

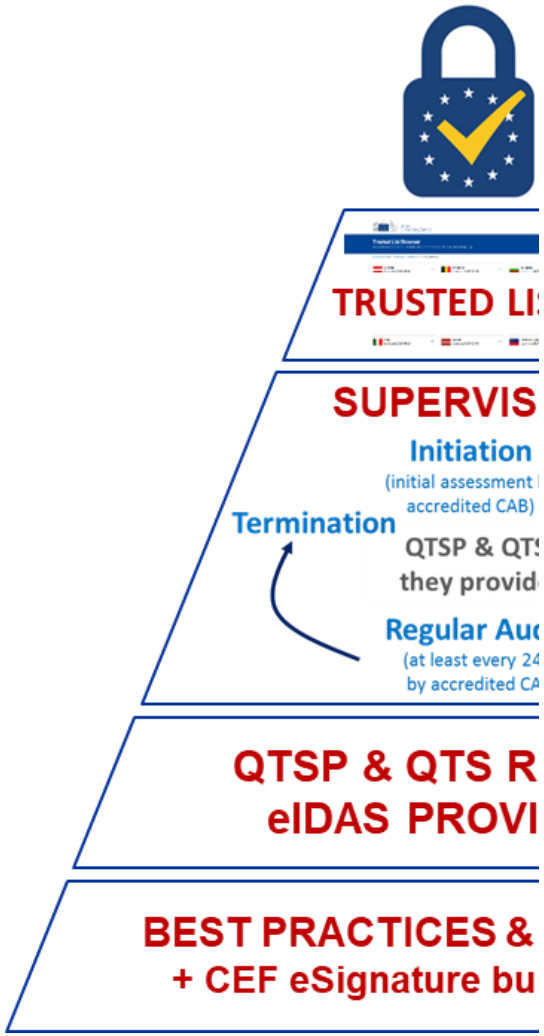
Methodology



Equivalence?



Methodology

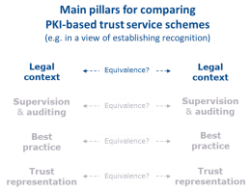


Main pillars for comparing PKI-based trust service schemes

(e.g. in a view of establishing recognition)

Legal context	←--- Equivalence? ---→	**Legal context**
Supervision & auditing	←--- Equivalence? ---→	**Supervision & auditing**
Best practice	←--- Equivalence? ---→	**Best practice**
Trust representation	←--- Equivalence? ---→	**Trust** representation

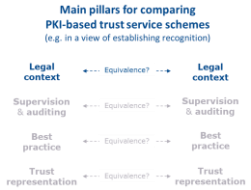
Methodology



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, …

Methodology

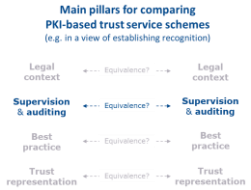


Legal context ← - - Equivalence? - - → **Legal context**

…

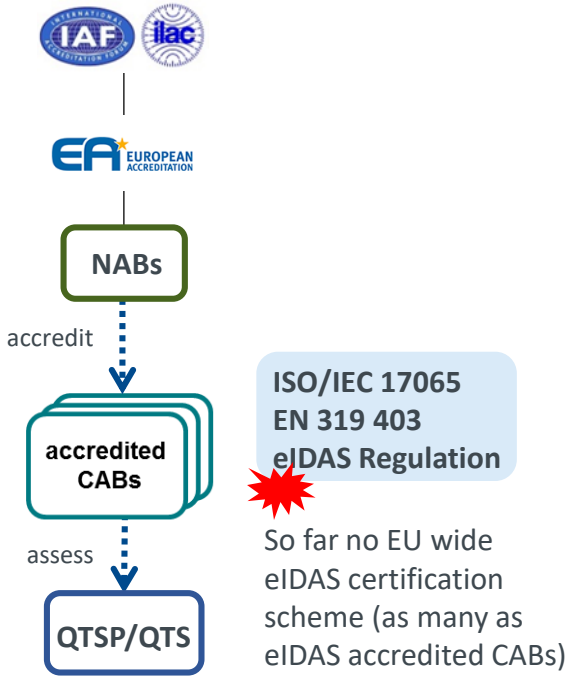
- TSP/TS Levels of reliability
  - e.g. qualified vs non-qualified
- Obligations of TSPs
  - Liability & burden of proof, Accessibility for persons with disabilities, supervision/audits, Correct operations, Security risks management, Security/Personal data breach notifications, Data protection, Staff,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

Methodology

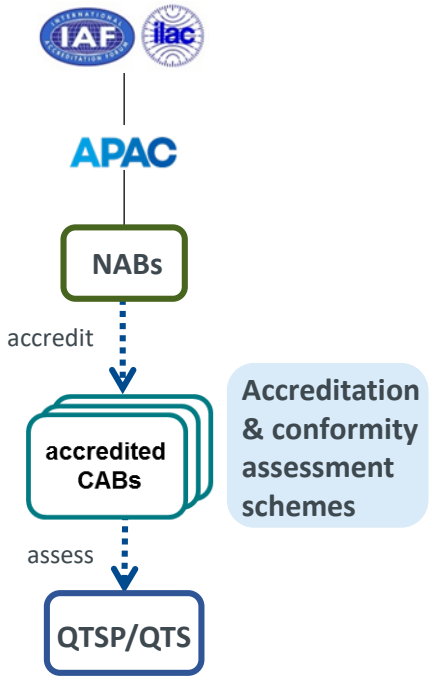


Supervision & auditing ← - - Equivalence? - - → **Supervision & auditing**

e.g.

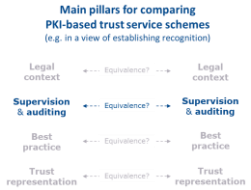


- Authorities approving (accrediting) auditing bodies
- Auditing bodies approval (accreditation) scheme
- Requirements on auditing bodies
  - Type of bodies
  - Conduct of assessment
  - Skills / competences
- Auditing (certification) scheme
- Assessment against what "normative document"
  - Regulation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

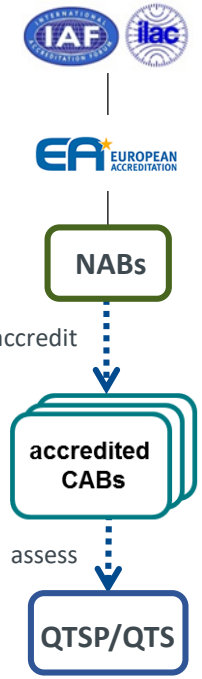


© ETSI 2019

Methodology



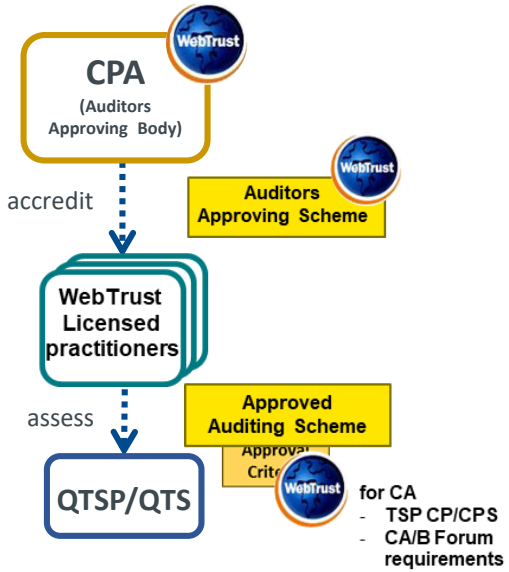
Supervision & auditing ← - - Equivalence? - - → **Supervision & auditing** **e.g.**



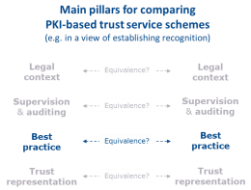
ISO/IEC 17065
EN 319 403
eIDAS Regulation

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

- 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



Best practice ←- - Equivalence? - -→ **Best practice**

e.g.

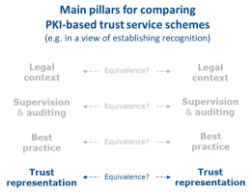
Common technical basis
makes easier mutual recognition

- 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

...

© ETSI 2019

Methodology



Trust representation ←- - Equivalence? - -→ **Trust representation**

e.g.

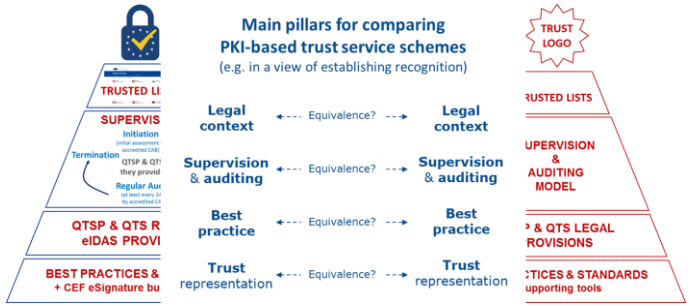
- Different models for representing trust
  - Trusted lists
  - Trust anchor stores
  - Bridging

Trusted List

Cross-certification

Trust Stores

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



© ETSI 2019

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