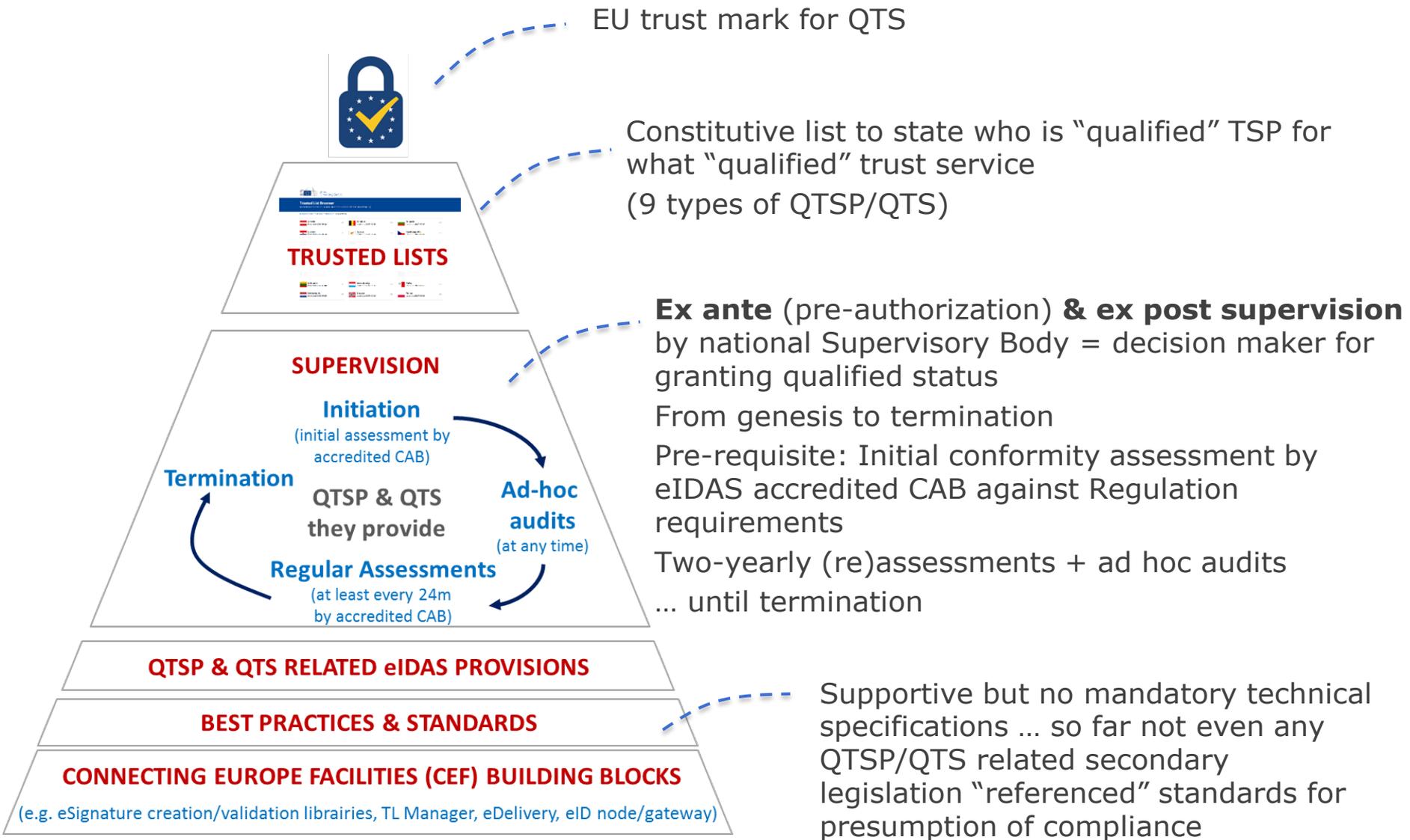


Trusted Lists:

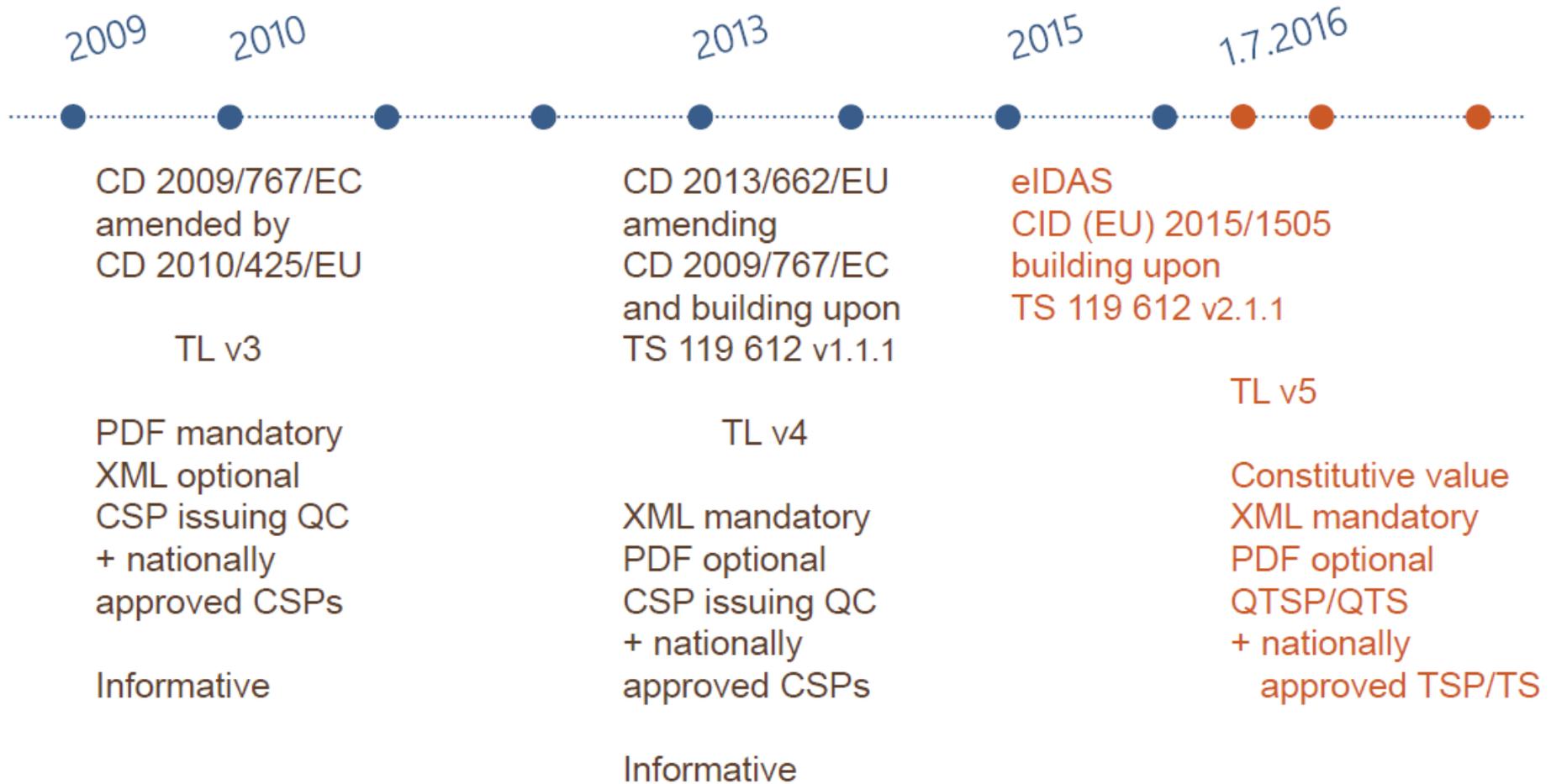
What's up?

CA Day 2019 - 26 September 2019
Olivier Delos – SEALED

eIDAS Regulation – Pyramid of trust



TL -Short overview of life time existence



TL – What it is

- Constitutive instrument on
 - Who is QTSP for what type of QTS
 - Legal certainty with regards to QTS
 - Mandatory listing of QTSP/QTS
 - CID (EU) 2015/1505
 - Procedures and formats for EU MS TL
 - Building upon ETSI TS 119 612 v2.1.1
 - Optional listing of non-Q TSP and non-Q TS on a national basis based on national approval scheme
 - Standards on TL consumption & QES validation policy against TLs
 - ETSI TS 119 615
 - How to process a TL in order to obtain information about a QTSP and QTS(s) it provides (e.g. how to technically determine a trust service output is qualified)
 - ETSI TS 119 172-4
 - Signature applicability rules (validation policy) for European qualified electronic signatures/seals using trusted lists
- ETSI Plugtest on Signature validation 30 Oct.-29 Nov.

TL – How is it organised

Information on the TL Scheme & Operator

- **TLSO (Issuer – Operator of the TL)**
 - Name
 - Postal & Electronic Address (email, website)
- **Information on Scheme**
 - Territory
 - URI to information on supervision scheme
 - Type of the list, Scheme name, Legal notice
 - Date of issuance & expiry
 - Info on status values
 - Usage rules: **how to use/interpret the TL**

Pointer to EC LOTL

List of (Q)TSPs & their (Q)TS

- (Q)TSP (Name, Postal & Electronic Address)
- URI to info on (Q)TSP practices
 - CPS/CP, GTC, legal info, customer care, etc.
- (Q)TS service entries (per service entry)
 - “Digital identity” (trust anchor)
 - Current status (+ information extensions)
 - & full history wrt. status

CID (EU) 2015/1505 built upon ETSI TS 119 612 v2.1.1

The screenshot shows a web interface for a Trusted List (TL) entry. The title is "TL - LU (Sn30)". The interface is organized into several sections:

- Availability:** Available
- Signature:** Valid - This TL is signed and the signature is verified. Details include:
 - Signed By: Alain Wahl
 - Signing Date: 2017-05-31 12:26:06
 - Format: XAdES_BASELINE_B
 - Digest Algorithm: SHA256
 - Encryption Algorithm: RSA
- TL Information:**
 - TSL Tag: <http://uri.etsi.org/19612/TSLTag>
 - Version Identifier: 5
 - Territory: LU
 - TSL Issuer: Luxembourg
 - Sequence Number: 30
 - TSL Type: <http://uri.etsi.org/TrstSvc/TrustedList/TSLType/EUGeneric>
 - Operator Name: [iLNAS](#)
 - Postal Address: [1, Avenue du Swing / Belvaux - L-4367 / LU](#)
 - Electronic Address: <mailto:confiance-numerique@lnas.etat.lu>
 - Scheme Name: [LU:Trusted list including information related to the qualified trust service providers which are supervised by the ...](#)
 - Information URI: <https://portail-qualite.public.lu/fr/confiance-numerique/prestataires-services-confiance/liste-confiance/scheme-inf-...>
 - Status: <http://uri.etsi.org/TrstSvc/TrustedList/StatusDetn/EUappropriate>
 - Determination Approach:
 - Community Rule: <http://uri.etsi.org/TrstSvc/TrustedList/schemerules/EUcommon>
 - Legal Notice: [The applicable legal framework for the present trusted list is Regulation \(EU\) No 910/2014 of the European Parliame...](#)
 - Issue Date: 2017-05-31 03:00:00
 - Next Update: 2017-11-30 01:00:00
 - Distribution Points: <https://portail-qualite.public.lu/fr/publications/confiance-numerique/liste-confiance-nationale/tsl-xml-...>
 - TSL Identifier: [TrustServiceStatusList-1](#)
 - Historical Period: 65535
- Pointers to Other TSL:**
 - EU (XML): https://ec.europa.eu/information_society/policy/esignature/trusted-list/tl-mp.xml
- Trust Service Provider:** <https://www.luxtrust.lu/en/repository>
 - Name: LuxTrust S.A.
 - Trade Name: VATLU-20976985
 - Postal Address: [IVY Building - 13-15 Parc d'Activités / Capellen - L-8308 / LU](#)
 - Electronic Address: <mailto:info@luxtrust.lu>
 - Information URI: <https://www.luxtrust.lu/en/repository>
 - Trust Service:**
 - LuxTrust Qualified Certification Authority: 2017-02-23 CA/QC withdrawn
 - LuxTrust Time Stamping Authority: 2017-02-23 TSA/TSS-QC deprecatedatnationallevel
 - LuxTrust Global Qualified Certification Authority: 2016-07-01 CA/QC granted
 - LuxTrust Global Time Stamping Authority: 2016-07-01 TSA/TSS-QC recognisedatnationallevel
 - LuxTrust Global Qualified Certification Authority 2: 2016-07-01 CA/QC granted
 - LuxTrust Global Qualified Certification Authority 3: 2016-07-01 CA/QC granted
 - LuxTrust Global Time Stamping Authority: 2017-02-17 TSA/QTST withdrawn
 - LuxTrust Qualified Time Stamping: 2017-02-17 TSA/QTST granted
- SeMarket Certification Authority S.A.: <http://www.portail-qualite.public.lu/fr/confiance-numerique/prestataires-services-confiance/liste-co-...>

- Supervisory body
 - Verifies QTSP/QTS conformance with eIDAS & decides on Q status grant
 - Builds up decisions on supervisory activity including but not limited to conformity assessment reports by eIDAS accredited CABs
 - Ask TLSO to update the TL in consequence

- Conformity assessment

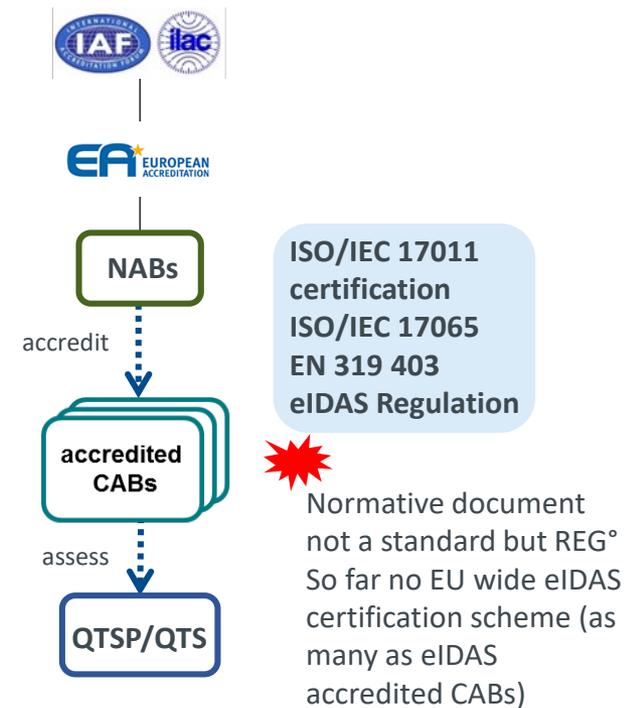
- NAB

- Reg. 765/2008
 - IAF/ILAC MLA - “certified once accepted everywhere”
 - Peer review
 - ISO/IEC 17011

- CAB

- EA proposes scheme (de facto adopted)
 - ISO/IEC 17065
 - EN 319 403 (+ 119 403-3 ?)
 - eIDAS as normative document
 - Own eIDAS conformity assessment scheme for confirming QTSP/QTS eIDAS conformance

→ Need for further harmonisation, transparency, agility, accountability



- TLBrowser
 - Tool to browse EU MS TLs and LOTL
 - + Dashboard, API Documentation, Search facilities
- TLManager
 - Tool to create, edit, maintain, sign & manage TL
 - + TSP statistics, notification, helpers
- DSS Library
 - Library for signature creation, augmentation and validation
- TLSO Community
 - Portal with access to tools
 - FAQ
 - Webinars, training, support

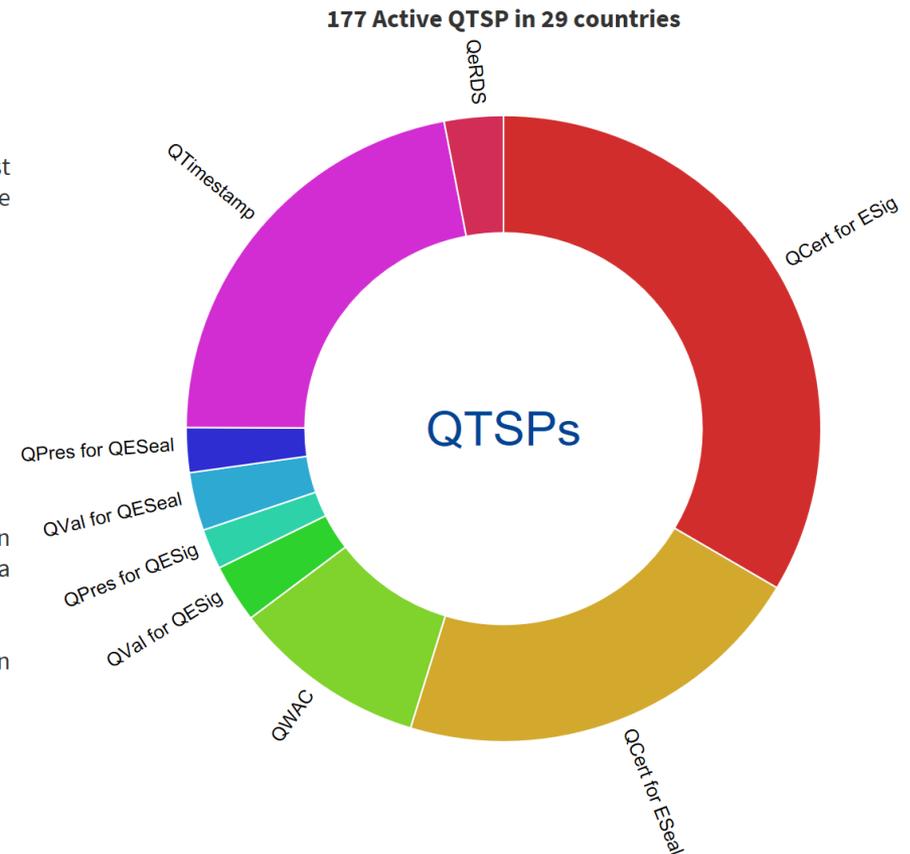
Number of active qualified trust service providers (QTSPs) per type.

Breakdown per type of qualified trust services. There are 9 types of qualified trust services, as defined in the Regulation n°910/2014 (the “eIDAS” Regulation). These types are:

- Qualified certificate for electronic signatures
- Qualified certificate for electronic seals
- Qualified certificate for web site authentication
- Qualified validation of qualified electronic signatures
- Qualified validation of qualified electronic seals
- Qualified preservation of qualified electronic signatures
- Qualified preservation of qualified electronic seals
- Qualified electronic time stamps
- Qualified electronic registered delivery

Please refer to [ETSI TS 119 612 v2.1.1](#) for further details on the information contained in a trusted list, in particular Section 5.5.1 “Service type identifier” for a description of the different (qualified) types.

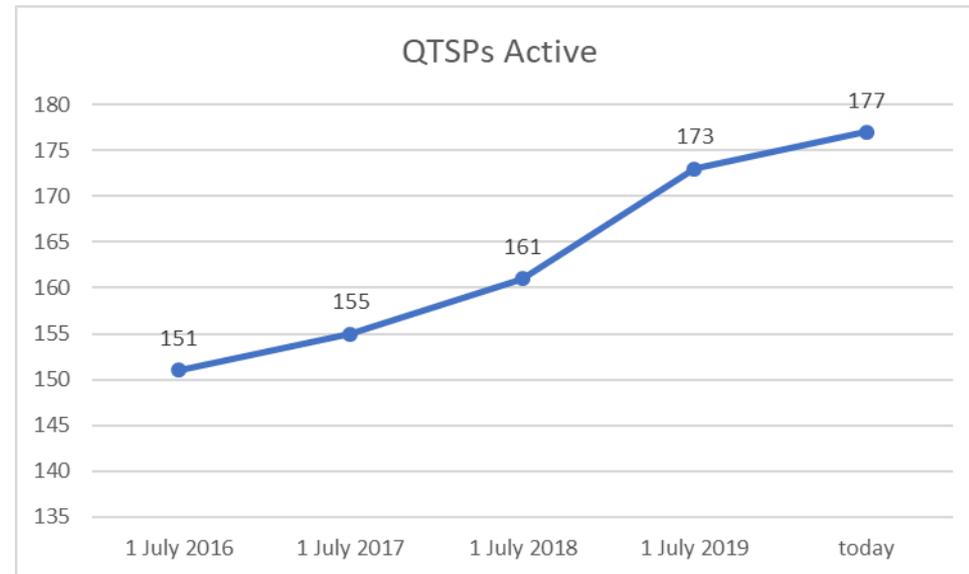
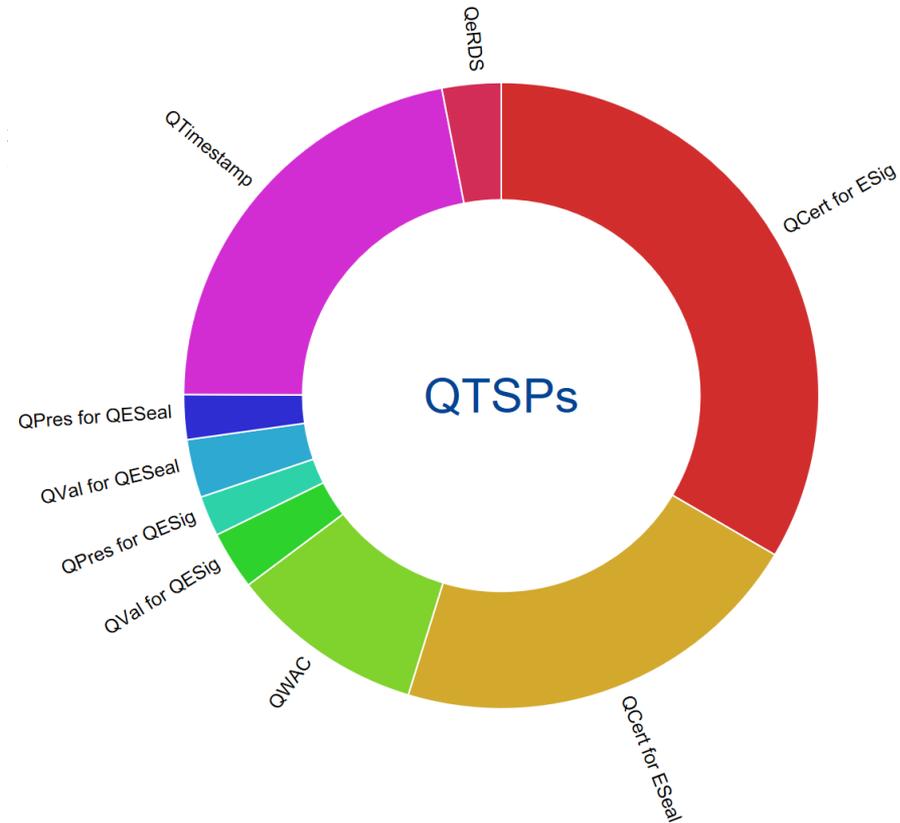
i Click on a pie slice to see details of type by country. Click again anywhere on chart to come back to global overview.



Source: TLBrowser & TLManager (TSP statistics), 25.09.2019

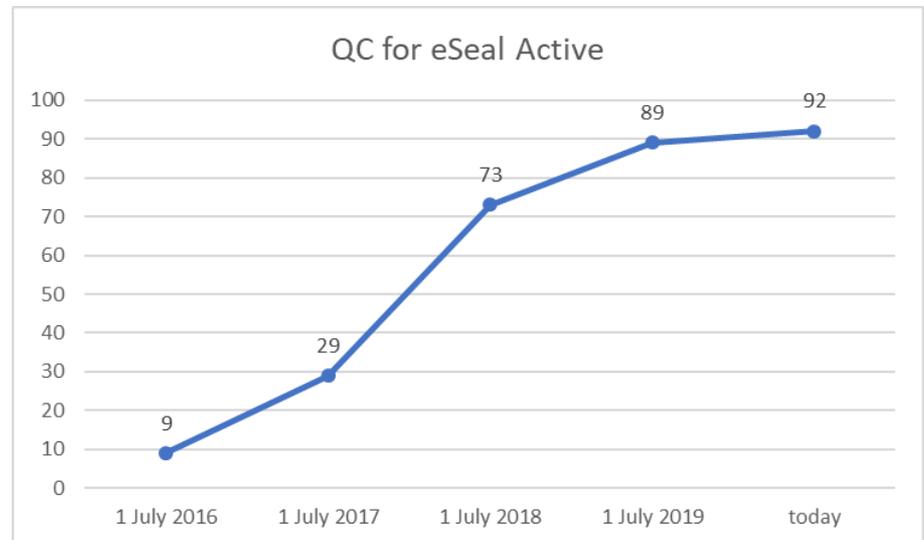
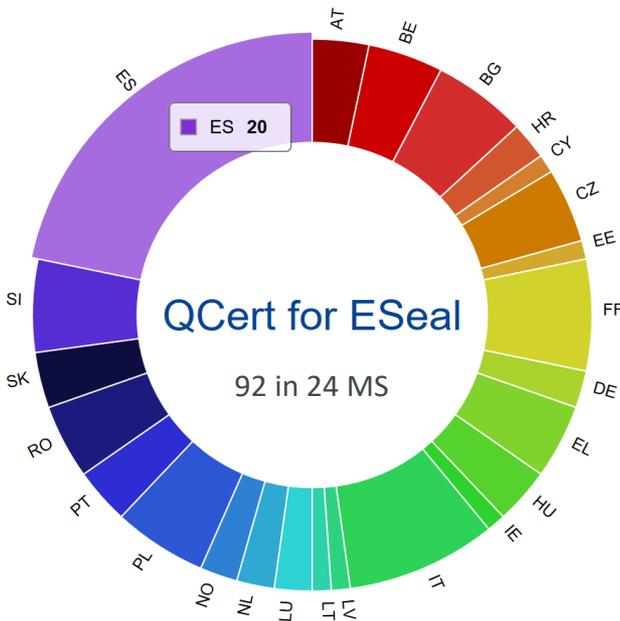
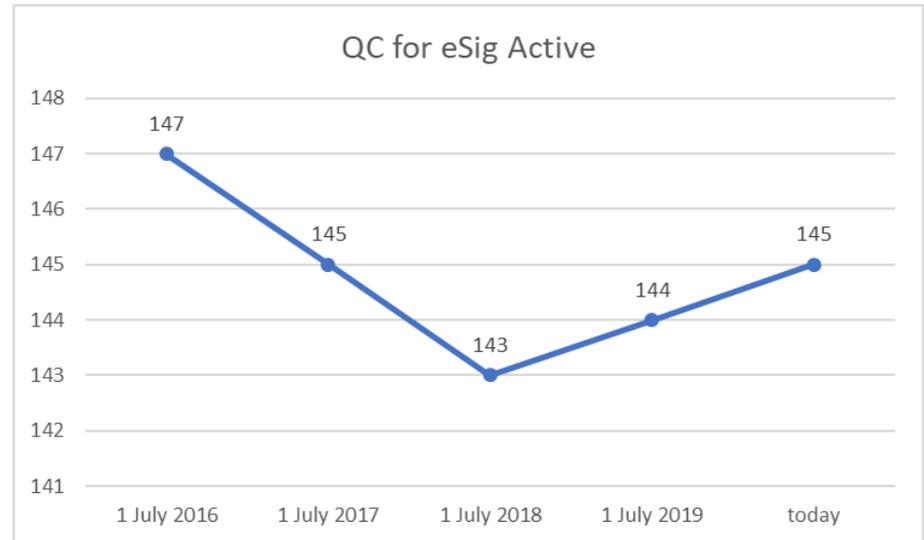
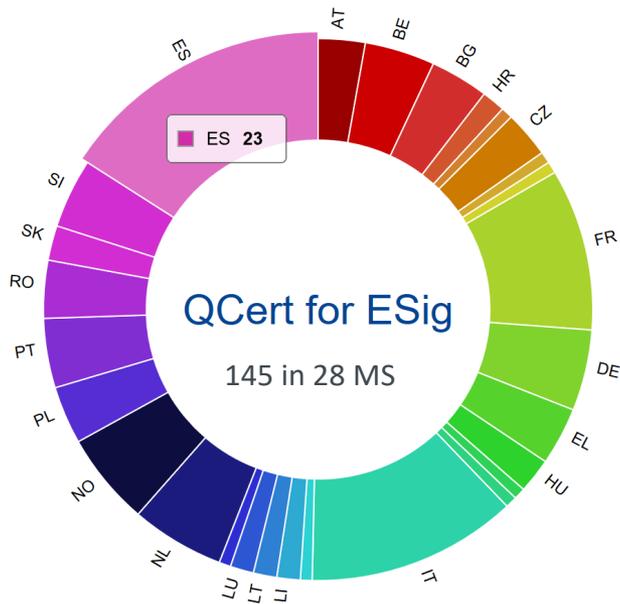
TL – state of play

177 Active QTSP in 29 countries

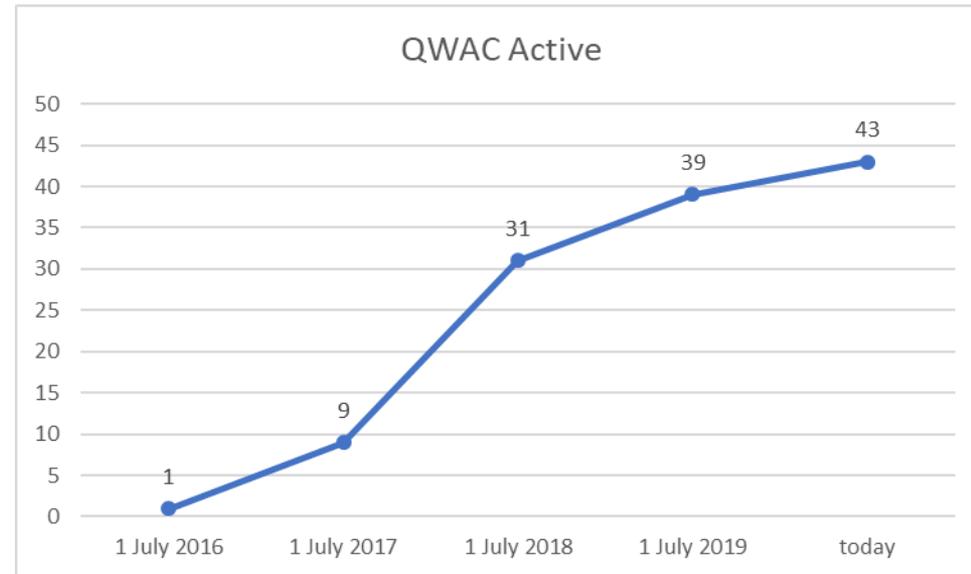
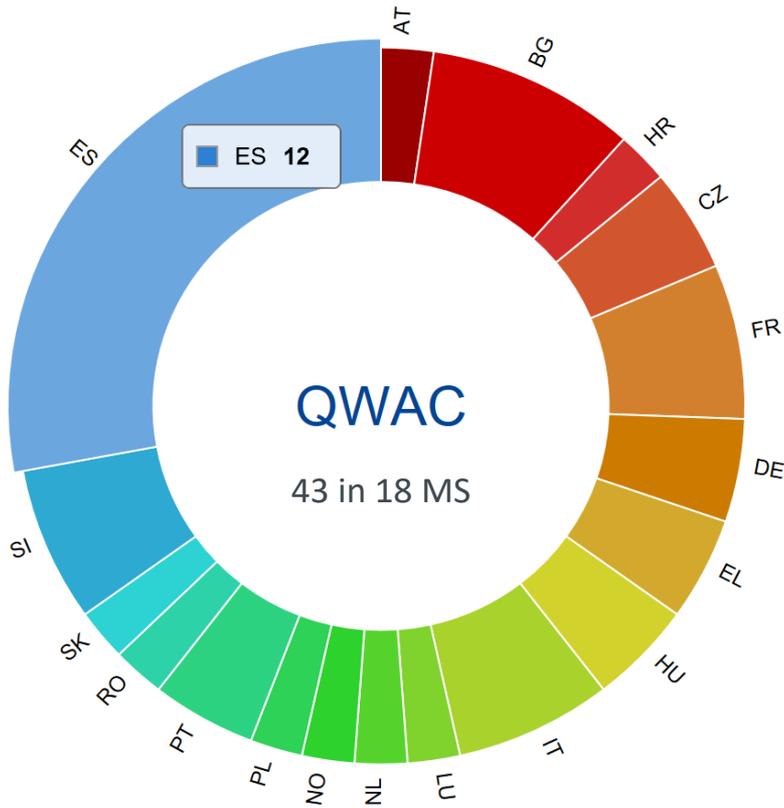


Source: TLBrowser & TLManager (TSP statistics), 25.09.2019

TL – state of play

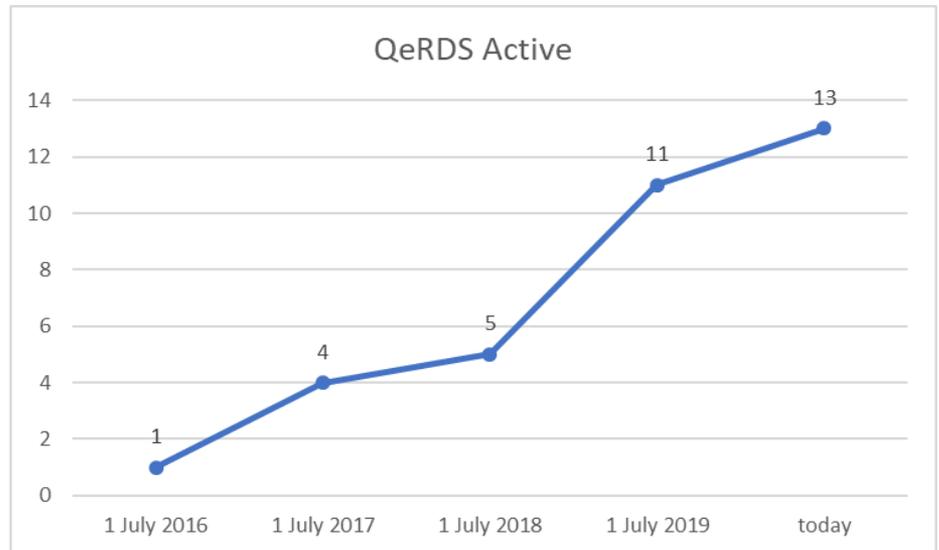
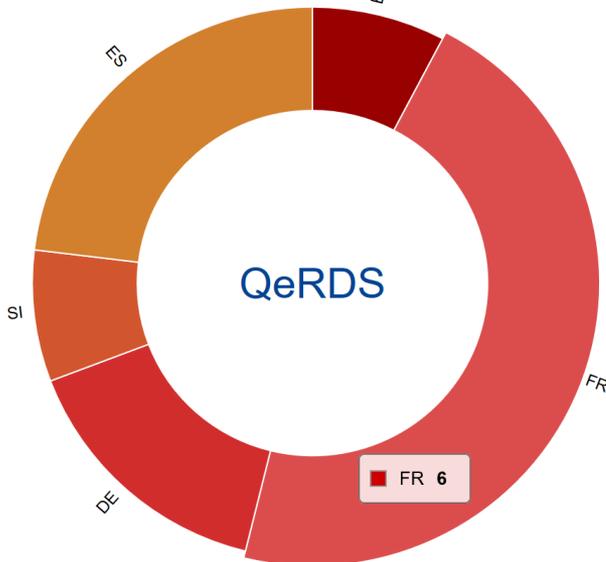
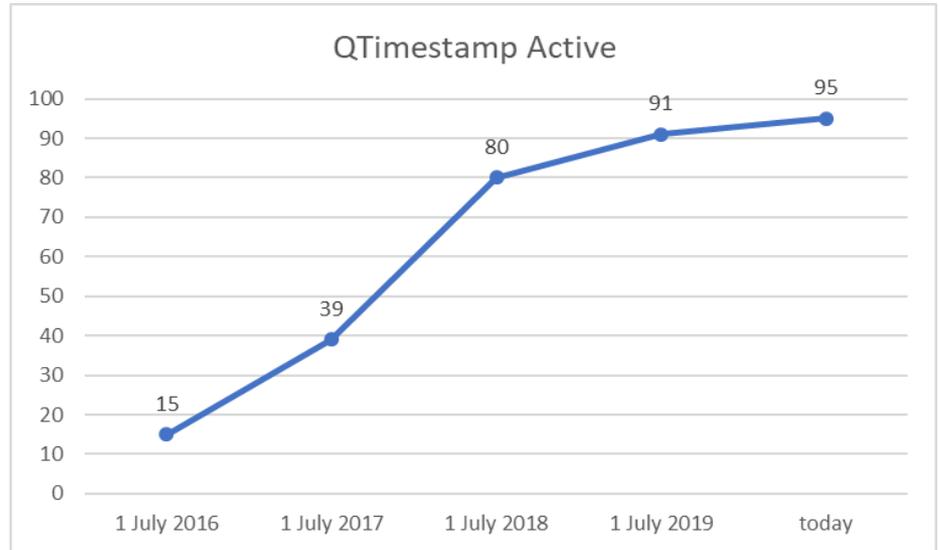
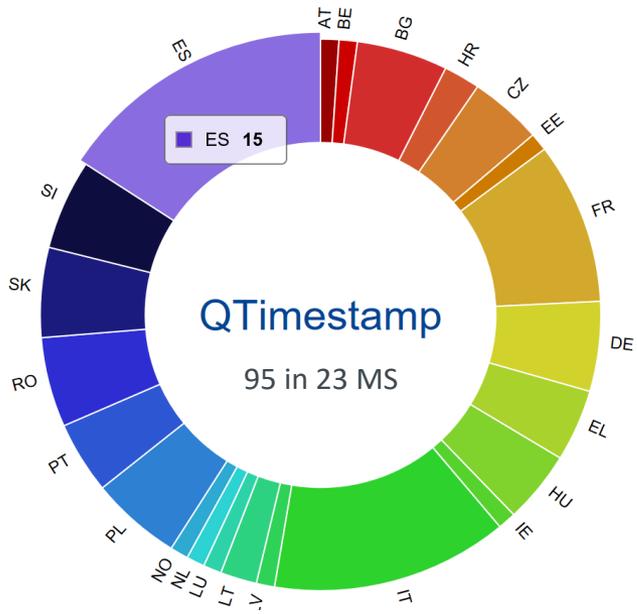


TL – state of play

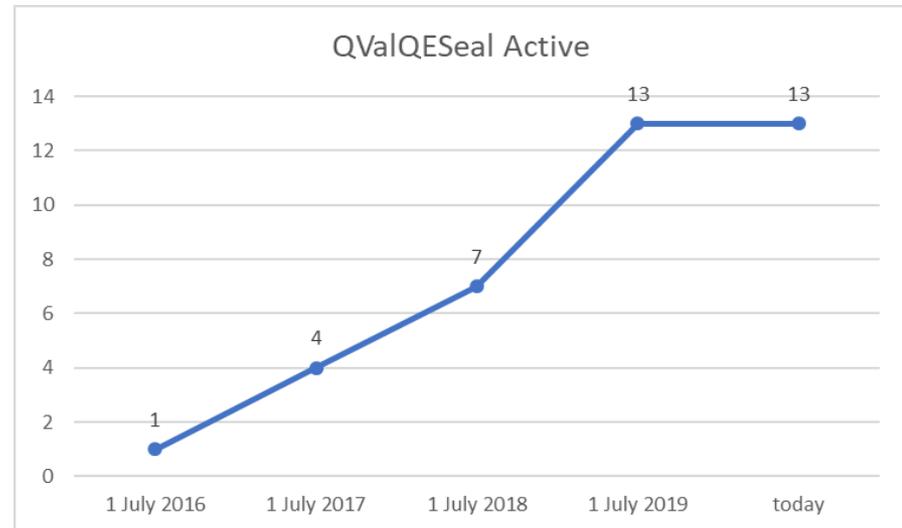
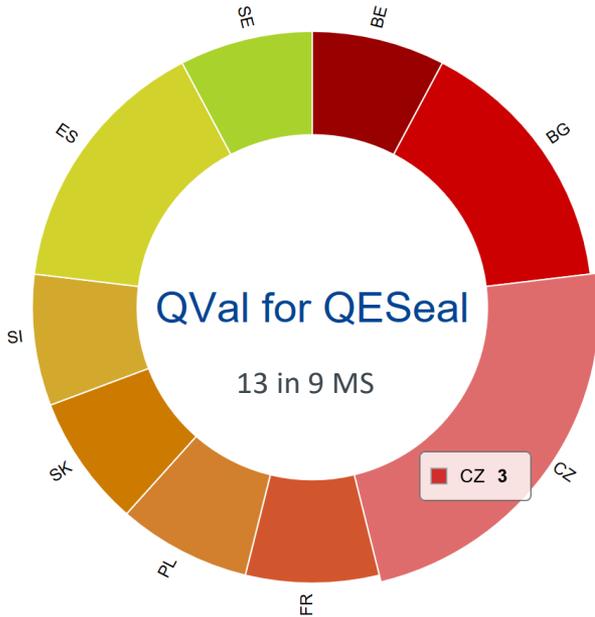
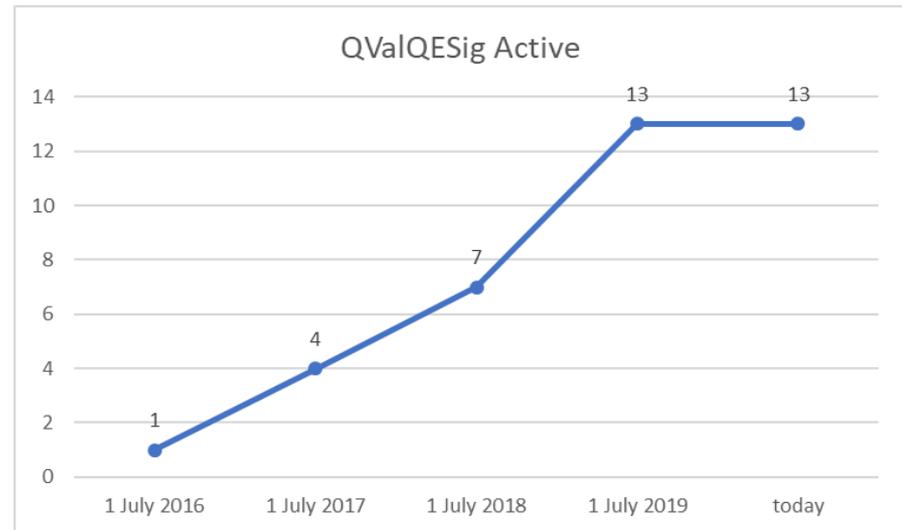
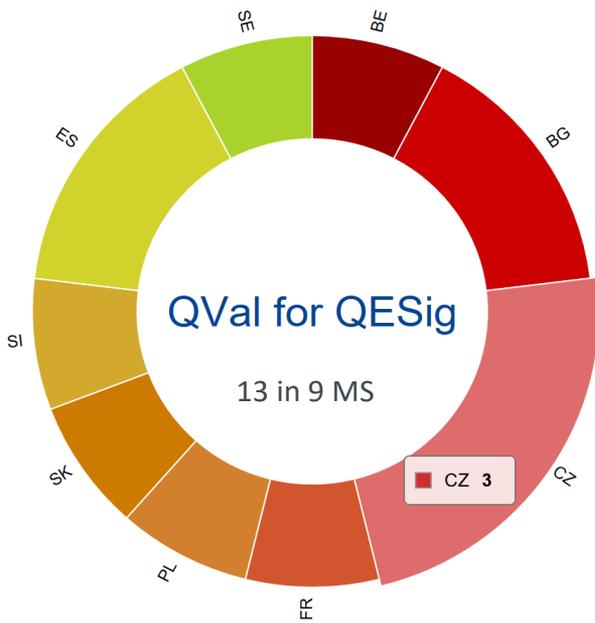


Source: TLBrowser & TLManager (TSP statistics), 25.09.2019

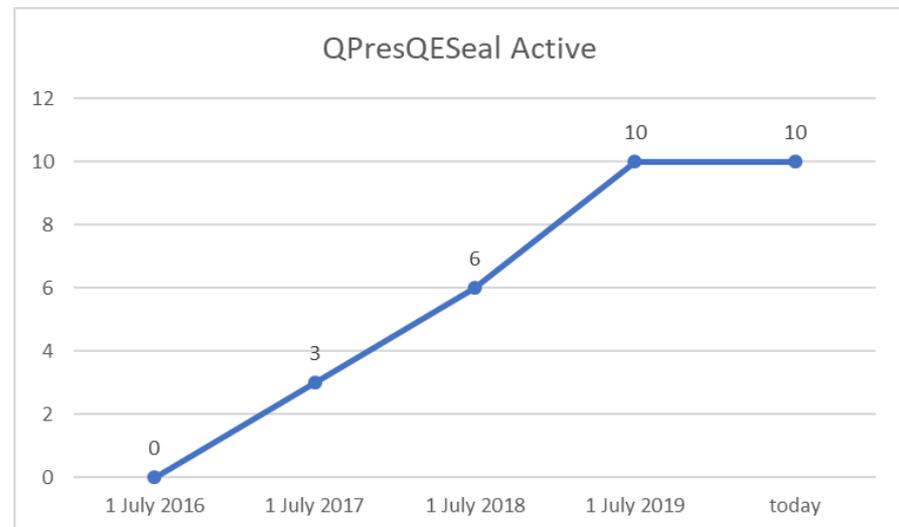
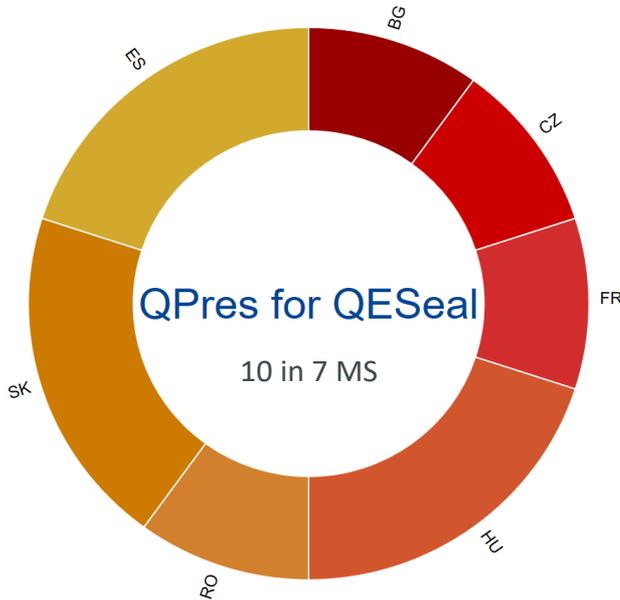
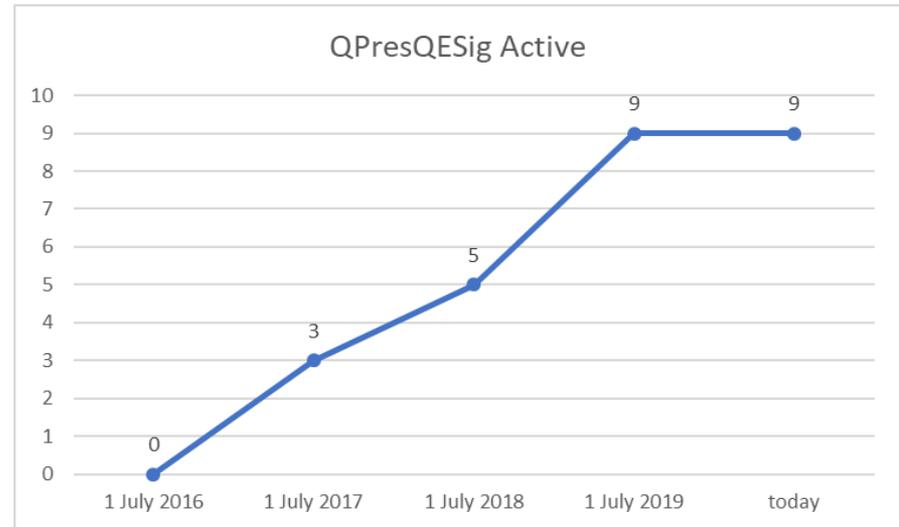
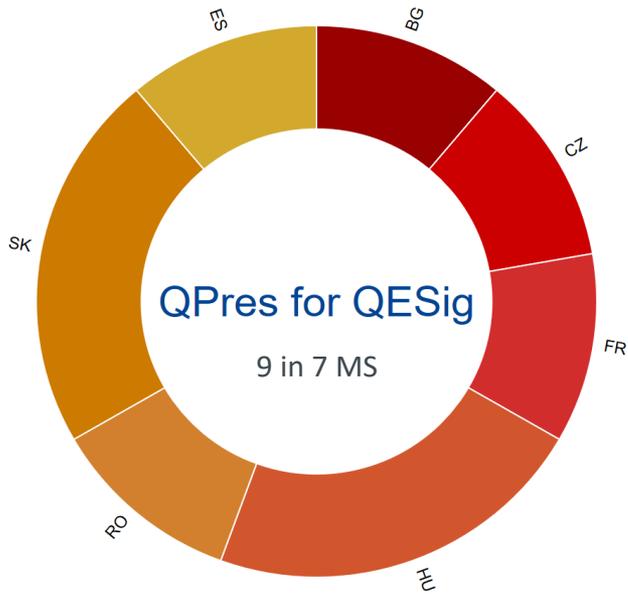
TL – state of play

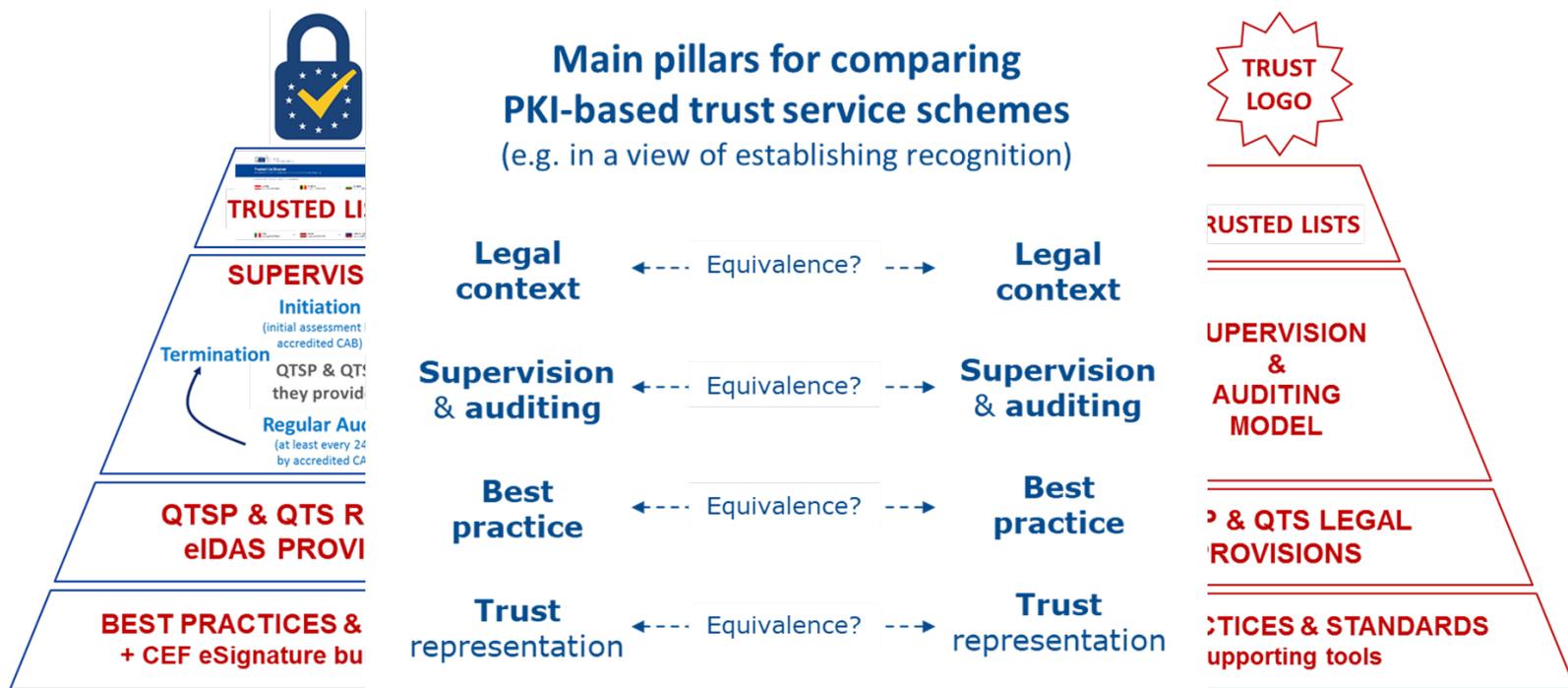


TL – state of play



TL – state of play





- ... to be driven by Art.14 of eIDAS Regulation when formal recognition with EU is expected
- Not implemented ... yet
 - Quite a lot of candidates (UA, UAE, Georgia, Argentina, Mexico ... and many others)
 - Not that practical as Art.14 is written now ... but let's give a chance to it
- Many 3rd countries are making use of TL (e.g. CH, UA, several African countries, Latin America, Middle East and Asian countries)

TL – Next steps, challenges

- Continue to support EU MS improving TL quality
- Awareness & education
- Pilot and specifications for LOTL pointing to 3rd country TL and “mapping” features
- Promotion beyond EU