

The UAE current state and views on globalisation of trust services

ETSI / TRA Middle East and Africa Workshop on Globalisation of Trust Services
May 2, 2019

Federal Authority | هيئة الاتحادية



Agenda

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The UAE National Trust Services Framework

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Trusted List based validation

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Trust & Licensing model

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Mutual recognition with EU

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Next steps

Current State



The current TSP regulation framework :

Does not cover all types of trust services that can be offered
Only electronic signatures and CSP issuing certificates are covered

Supervision & auditing requirements of the entire set of practices/processes of the provision of trust services (e.g. ISO 27001 ISMS vs Trust Service provisioning)

Lack of service providers targeting different costumers' communities

Lack of custom solutions addressing specific requirements (e.g. confidentiality) of some entities

Lack of awareness on trust services and their business & legal advantages

Current State



Digital signing initiatives and other Trust Services have been implemented, however adoption is lagging behind due to the following reasons:

PKI perceived as difficult to integrate with

Questions on whether PKI has a regulatory framework aligned to the international and domestic regulations

User experience is a key enabling dimension and PKI perceived as affecting the user experience while conducting e-Services

PKI is presented as an enabling technology without addressing the policies and on-boarding processes

PKI is perceived as a technology that may affect the operational KPIs (e.g. transaction speed) of e-Services

Future State



Enhanced TSP regulation framework

Covering various types of qualified trust services covering the emerging market demands

Comprehensive requirements, incl. Supervision & auditing requirements

Alignment with eIDAS Regulation (EU) being a leading international benchmark

International recognition, firstly addressing the EU, but extensible to other regions, as well as main Browsers/SW

Resilient and innovative PKI solutions

Effective awareness and promotion of the PKI services

Mature PKI market providing alternatives and reach to the diversity of consumers across the UAE

Main objectives

Encourage **digital transformation**, investment and the provision of electronic services to the public

Enhancing the **trust** in the electronic transactions by setting appropriate **security levels** for the eID tools and electronic trust services

Setting a **clear legal framework** and **legal force** of the electronic trust services

Positioned amongst the **international scene** through :

- mutual recognition
- interoperability by setting standards

Key success factors

Clear, attractive but **regulated** framework

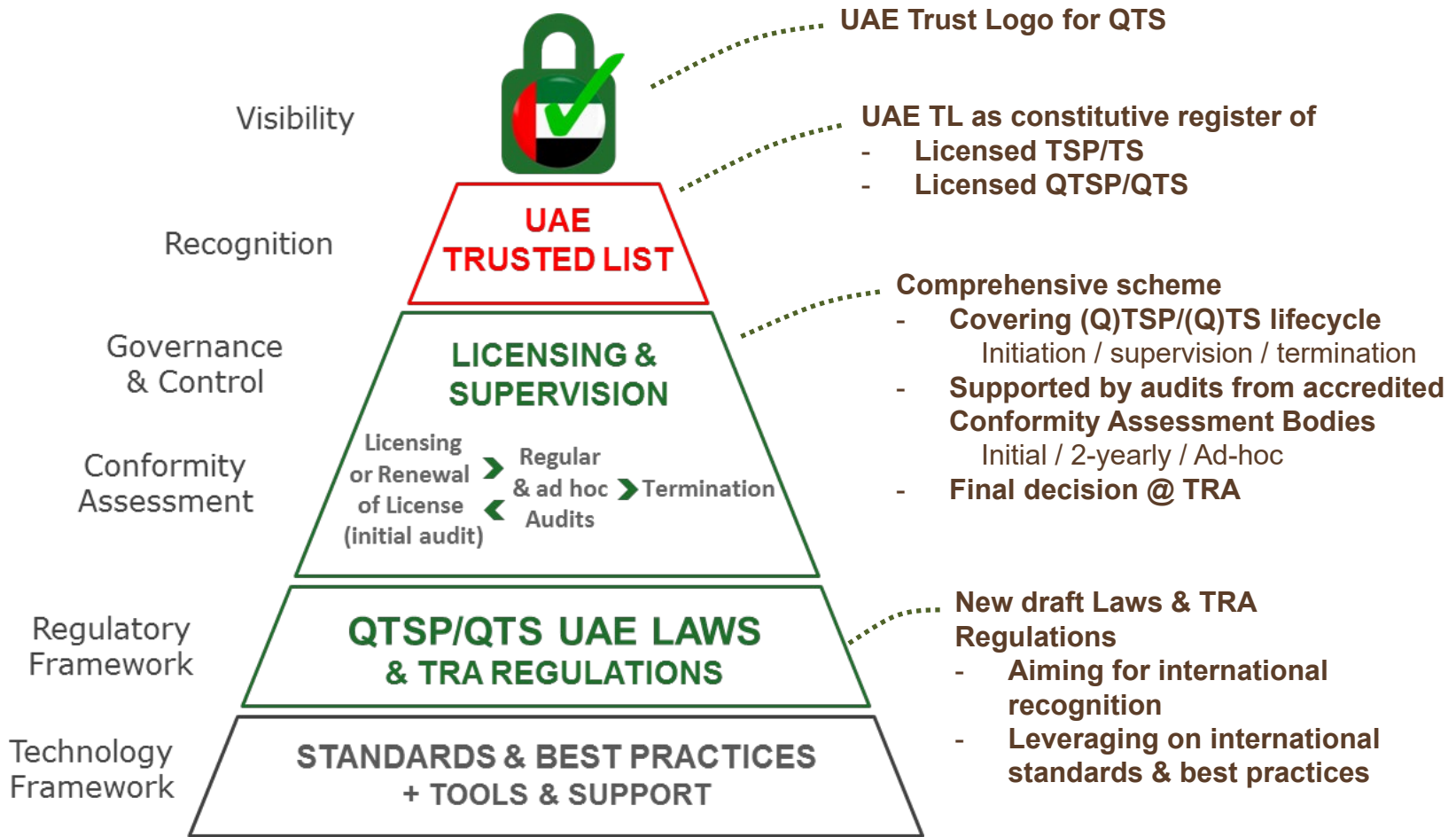
Setting **appropriate conditions** for the adoption of electronic identification tools, qualified & non-qualified trust services

Prescriptive to increase certainty of implementations meeting the legal requirement and securing investments while providing a welcoming environment for TSPs, not a burden

Keep up with **technological development & innovation**

Encourage more investments in this area & in supported electronic transactions

UAE Pyramid of trust



Licensed Trust Services

Levels of reliability

Non-qualified level (7 types of non-qualified trust services)

Provision of certificates for

- Electronic signatures
- Electronic seals
- Website authentication



(Remote) creation of

- Electronic signatures
- Electronic seals



Creation & management of eidentification System



Issuance of eidentification Tools



- ! No non-qualified time stamps
- ! No non-qualified validation / preservation of QESig/QESeal
- ! No non-qualified ERDS
- ! Certificate enrolment services (RA) not as (Q)TS but as service component, auditable separately
- ! Provision of certificates may include "root-signing"

Qualified level (9 types of qualified trust services)

Provision of qualified certificates for

- Electronic signatures
- Electronic seals



Qualified preservation of qualified

- Electronic signatures
- Electronic seals



Qualified validation of qualified

- Electronic signatures
- Electronic seals



Qualified timestamp service



Remote-QSCD-as-a-service



Qualified electronic registered delivery service



Licensed Trust Services

Compared licensing models

	TSPs (all types)	QTSPs (all types)	Foreign CSPs issuing TLS, WSA &/or Code Signing certificates
Licensing	Yes	Yes	Yes (simplified)
Establishment in the UAE	Yes	Yes	No
Initial audit CAR at Licensing / Renewal of License	Yes	Yes	As part of prior requirement to be recognised by GAMMOA(*)
Licensing (approval) criteria	Limited	Extended (per QTS type)	Limited + Prior requirement to be recognised by GAMMOA(*)
Subject to ad hoc & 2-yearly regular audits	Yes	Yes	As part of prior requirement to be recognised by GAMMOA(*)
Termination plan	Yes	Yes	Yes
Grant/withdrawal of qualified status	No	Yes	No
Presence in UAE Trusted List	Yes	Yes	No

(*) GAMMOA: Google, Apple, Microsoft, Mozilla, Oracle (Java) & Adobe

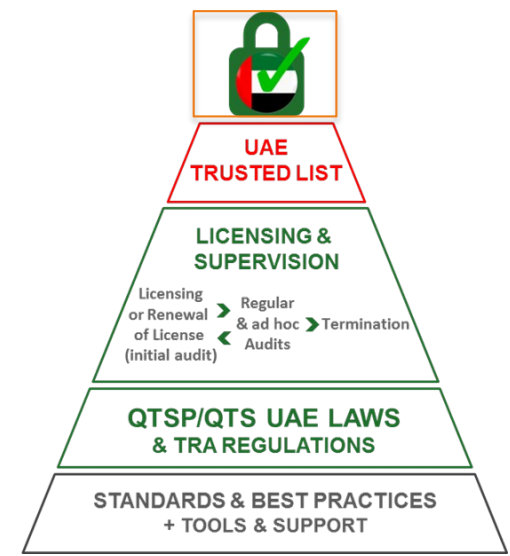
UAE Trust Logo



(*)

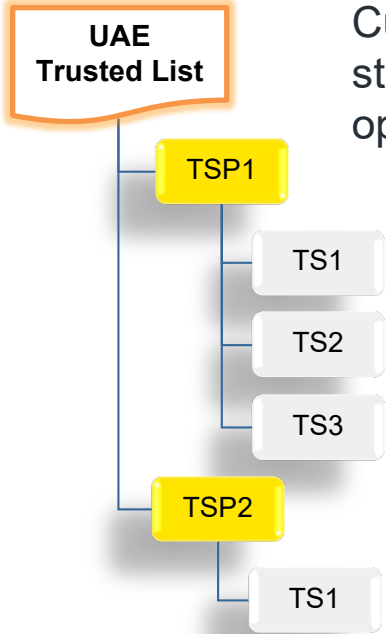
Indicates to third parties that a trust service is a UAE **qualified** trust service, provided by a UAE qualified trust service provider

- Used on a voluntary basis
- Only for qualified trust services
- Rely on regulated **visual rules**
- **Awareness** and **marketing** purposes



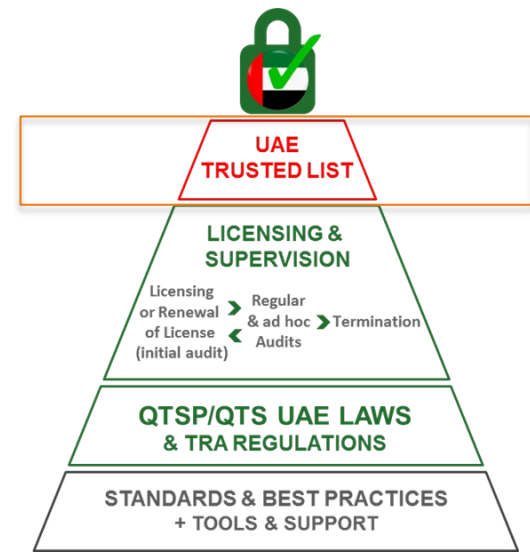
(*) Logo for illustration purposes only

UAE Trusted List



Current and historical licensing status and, when applicable, qualified status of UAE (Q)TSP/(Q)TS + information on TRA as scheme operator & on each (Q)TSP.

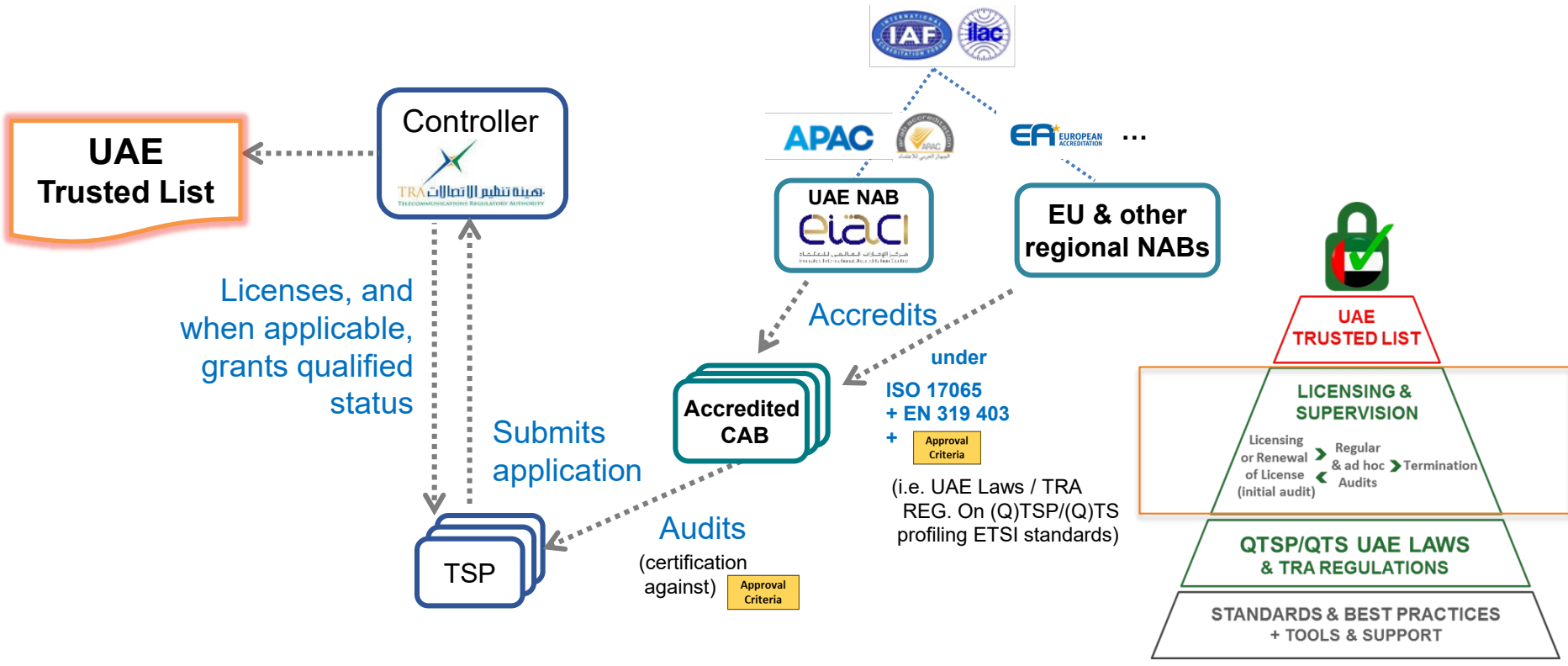
- UAE TL as **constitutive register** of
 - Licensed TSP/TS
 - Licensed QTSP/QTS
- **Format** in XML (machine processable) and PDF
- **Human** readable browsing tool
- Rely on EU **standard based specifications** prescriptive by UAE Law
- **24/7** availability



TS = Trust Service
 TSP = Trust Service Provider
 (Q)TSP/(Q)TS = (Q)TSP and the (Q)TS it provides

UAE Licensing model

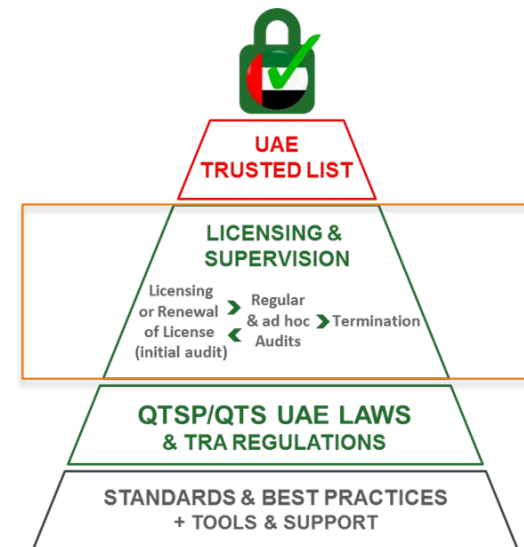
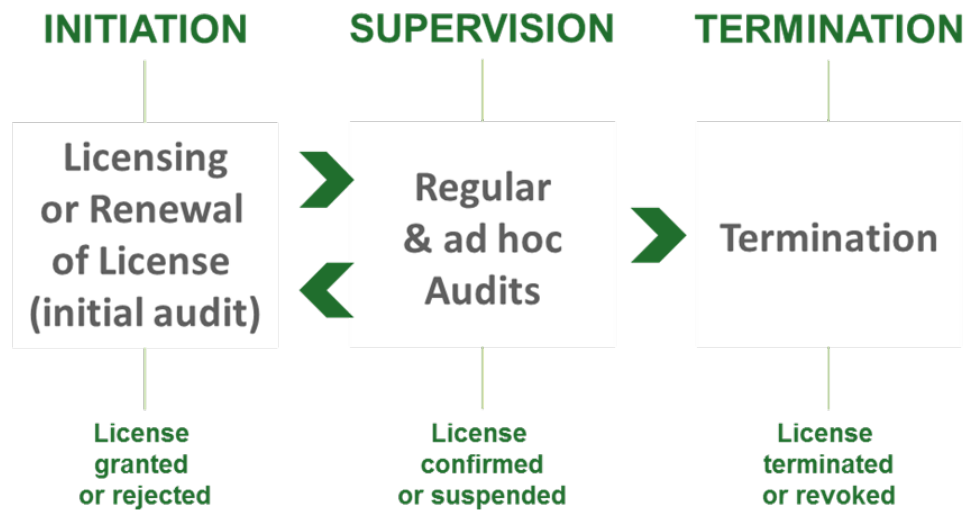
UAE Licensing model for TSPs & QTSPs
 Targeted mutual recognition with EU eIDAS model



CAB = Conformity Assessment Body
 NAB = National Accreditation Body
 (Q)TSP = (Qualified) Trust Service Provider

UAE Licensing flow

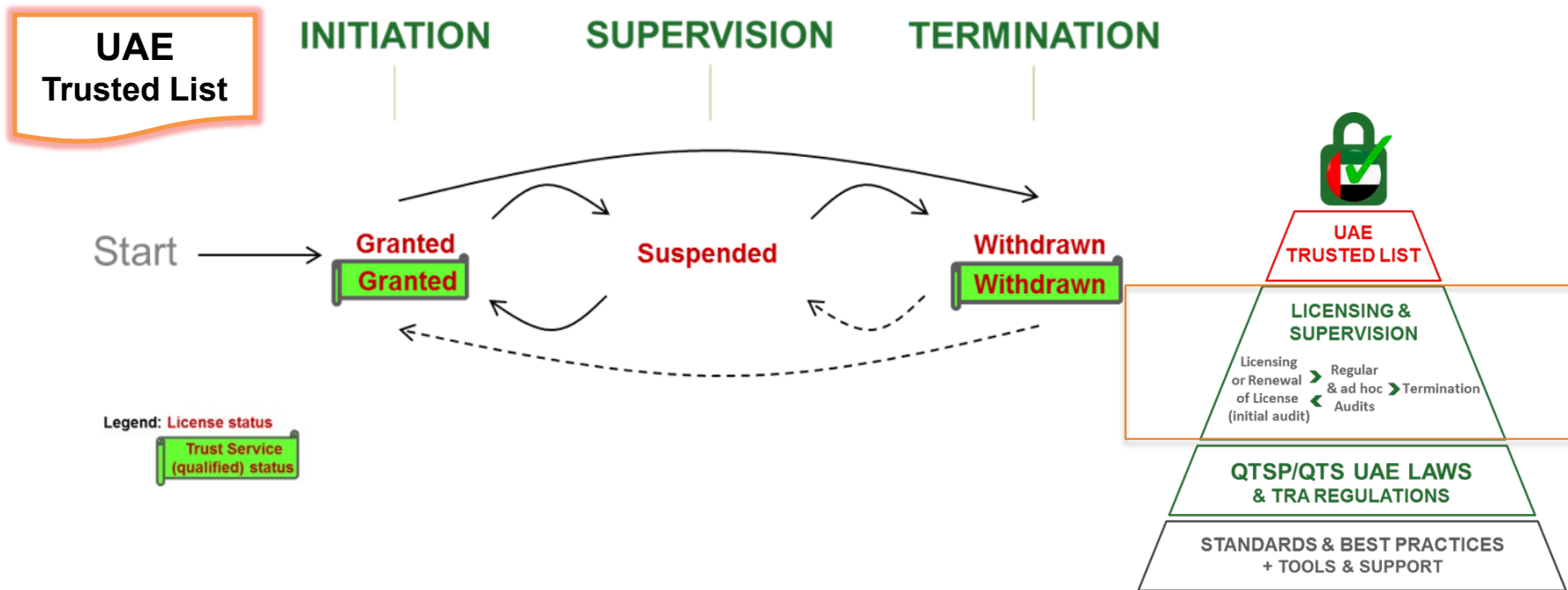
UAE Licensing model for TSPs & QTSPs
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UAE Licensing status flow

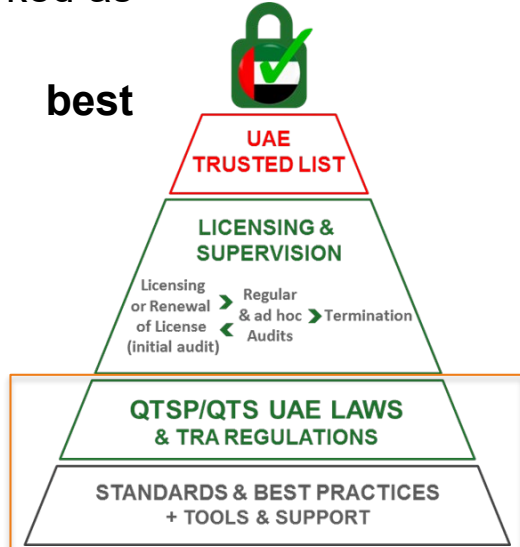
UAE Licensing model for TSPs & QTSPs

Targeted mutual recognition with EU eIDAS model

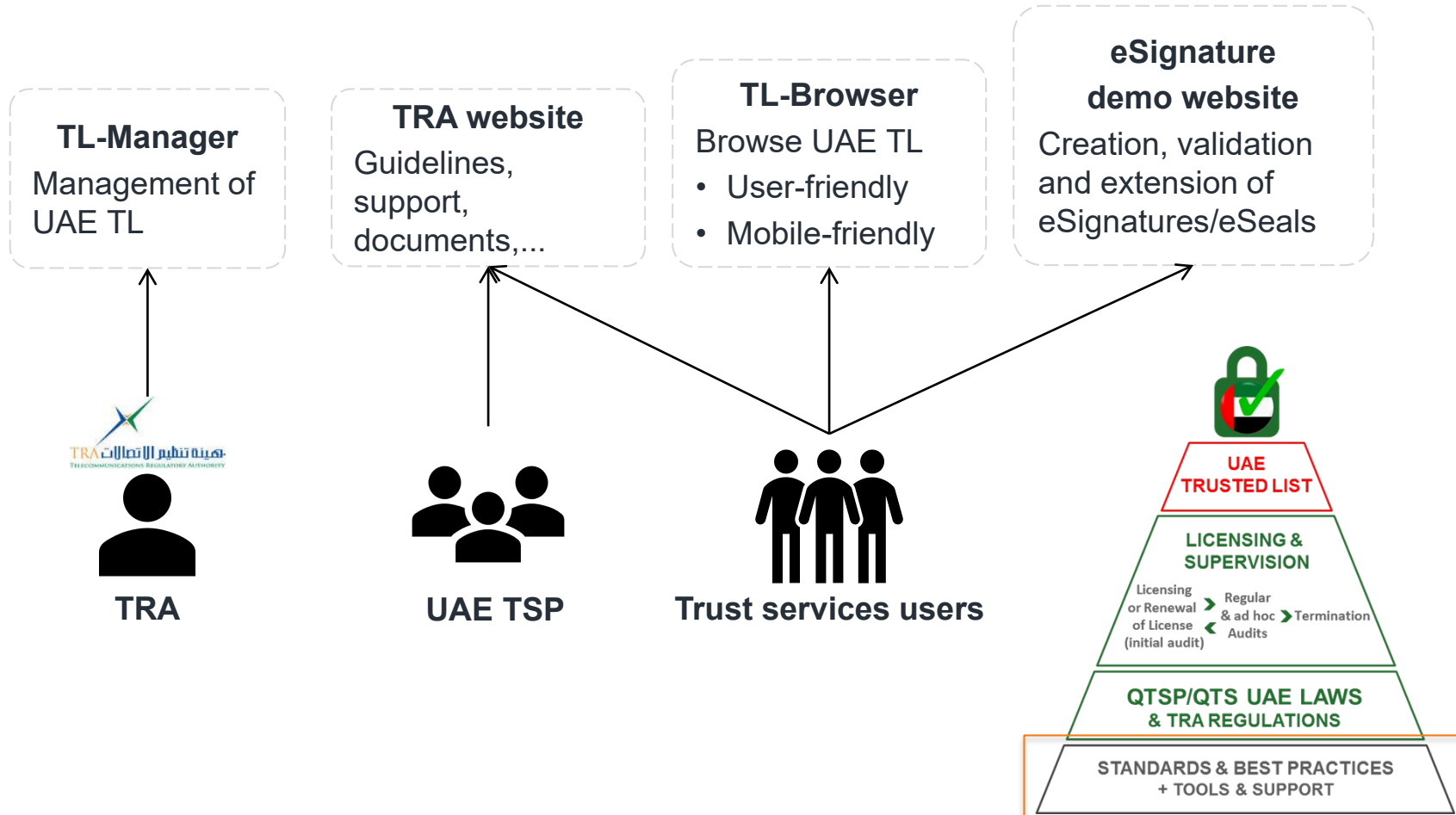


UAE Regulation

- Aiming to provide the above objectives
- Draft Federal Law aiming to **repeal** (at least with regards to trust services)
 - Federal Law on Electronic Commerce and Transactions
 - Ministerial Resolution regarding the issuance of CSP R.regulations
- Meant to be equivalent to the eIDAS regulation (benchmarked as the most complete and mature model found)
- Ensure the correct implementation of international **best practices and standards**
- Achieve **mutual recognition** with :
 - Industry
 - 3rd countries & regions (including EU, GCC)



Tools and users

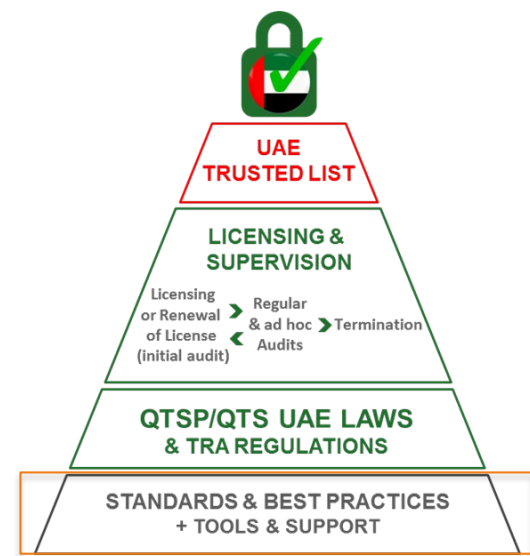


Inclusion of existing UAE services

Provided they are compliant and assessed, existing **public** and private services will be **included** in the UAE TL such as:

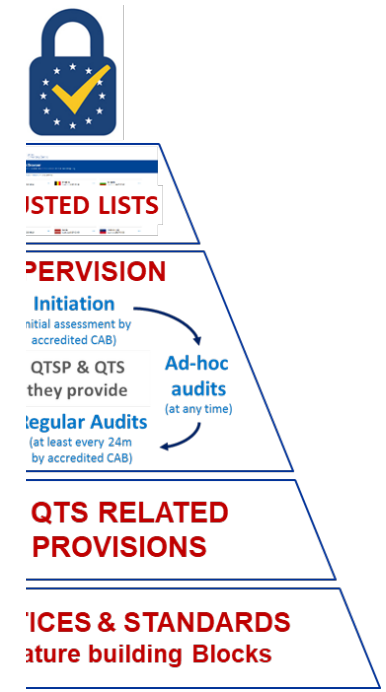
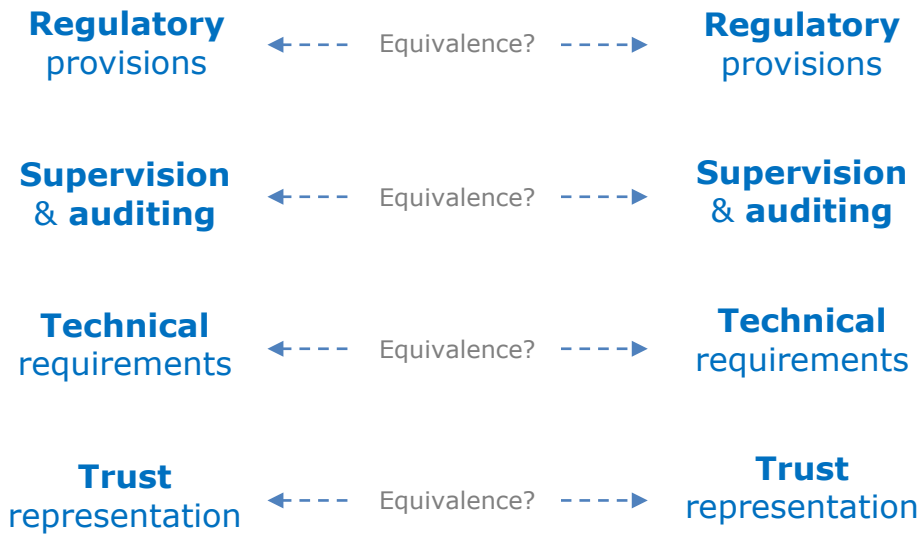
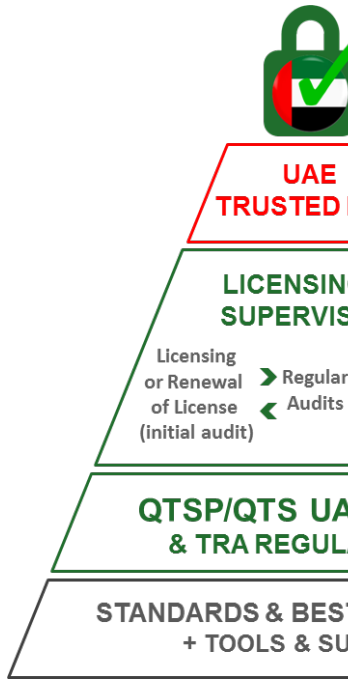
- Electronic signature functionalities in Emirates ID and UAE Pass
- Certificates for electronic signature for:
 - Residents, citizens, and government employees
 - Government entities (on behalf of the entity)
- Timestamping services offered
- Signature Verification Services
-

1-year(*) **transition period** has to be specified in the Regulation.

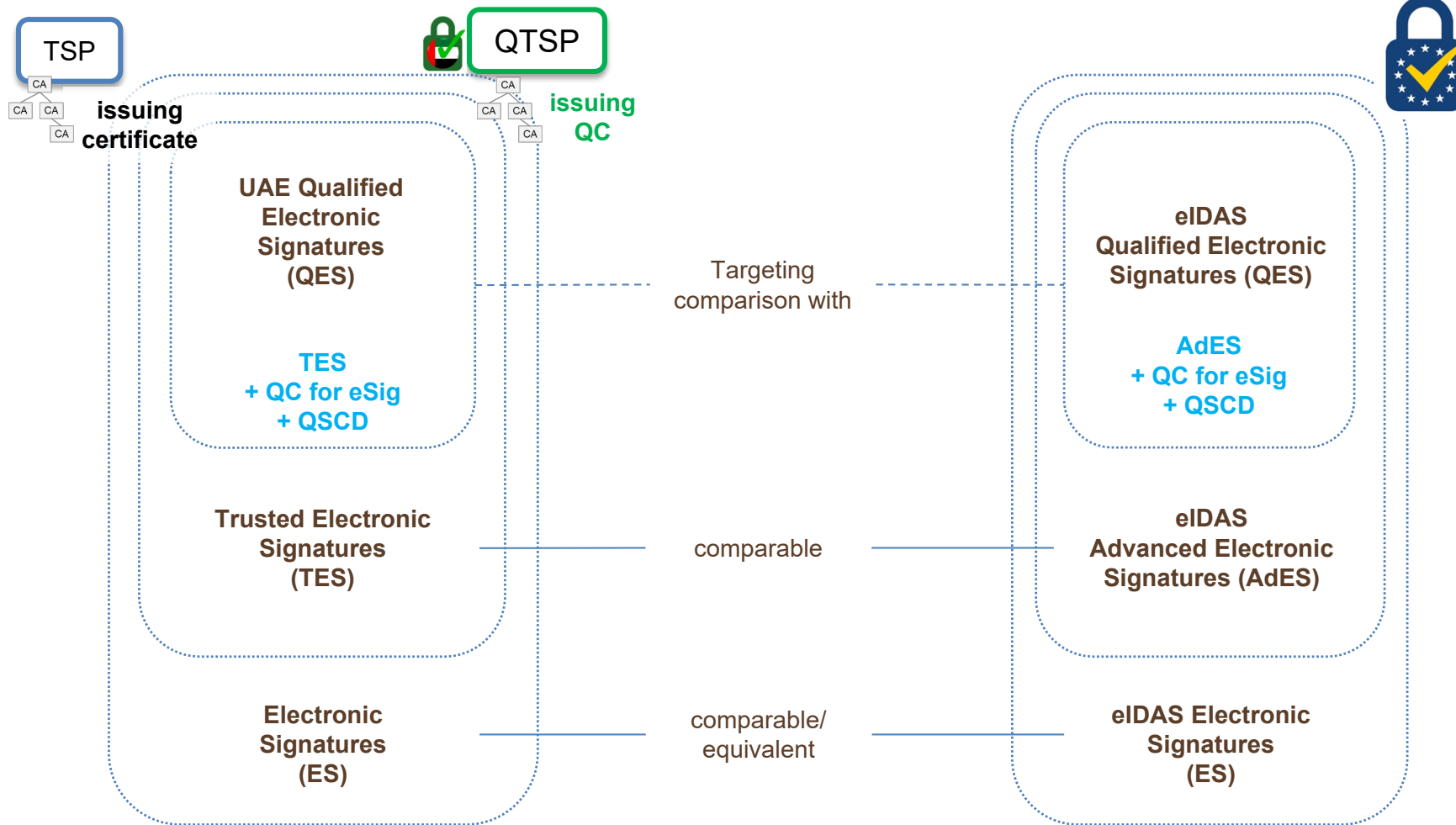


Making trust models **mutually recognized** (and so as **close** as possible)
 Applicable to any **3rd Country / Region** (e.g. **GCC**)

Main pillars for comparing
QTSP/QTS trust models
 (e.g. in a view of establishing recognition)



Electronic signatures





Type of QTS








UAE

- Provision of QC for electronic signatures
- Provision of QC for electronic seals
- Qualified time stamping services
- Qualified Electronic (Registered) Delivery Services
- Qualified validation of QESig/QESeal
- Qualified preservation of QESig/QESeal
- Remote-QSCD-as-a-service

eIDAS (EU)

- 🔒 Provision of QC for eSignatures → QESig ≡ 

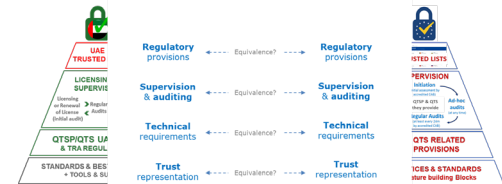
🔒 Provision of QC for eSeals → QESeal ≡ 

 Data integrity & Proof of data origin
- 🔒 Provision of QC for website auth^o → 
- 🔒 Qualified validation of QESig →  Trustworthy results for validation of QESig/QESeal
- 🔒 Qualified validation of QESeal →  Trustworthy results for validation of QESig/QESeal
- 🔒 Qualified preservation of QESig →  Trustworthy assurance of long term evidentiary value of QESig/QESeal
- 🔒 Qualified preservation of QESeal →  Trustworthy assurance of long term evidentiary value of QESig/QESeal
- 🔒 Provision of qualified time stamps →  presumption of the accuracy of the date & time and integrity of the time stamped data
- 🔒 Qualified electronic registered delivery services →  presumption of integrity of the registered data, the sending of that data by the identified sender, its receipt by the identified addressee and the accuracy of date & time of sending and receipt

Roadmap

- TRA letter to European Commission on the feasibility of a mutual recognition under Art.14 of eIDAS Regulation
- **First ever** such clear request received by the EC !
- 1st informal meeting at technical level
- Formal response from EC expected
- Long journey ahead ...

In parallel ETSI-TRA workshop on Globalisation of trust services to be hosted at TRA premises on May 2nd, 2019

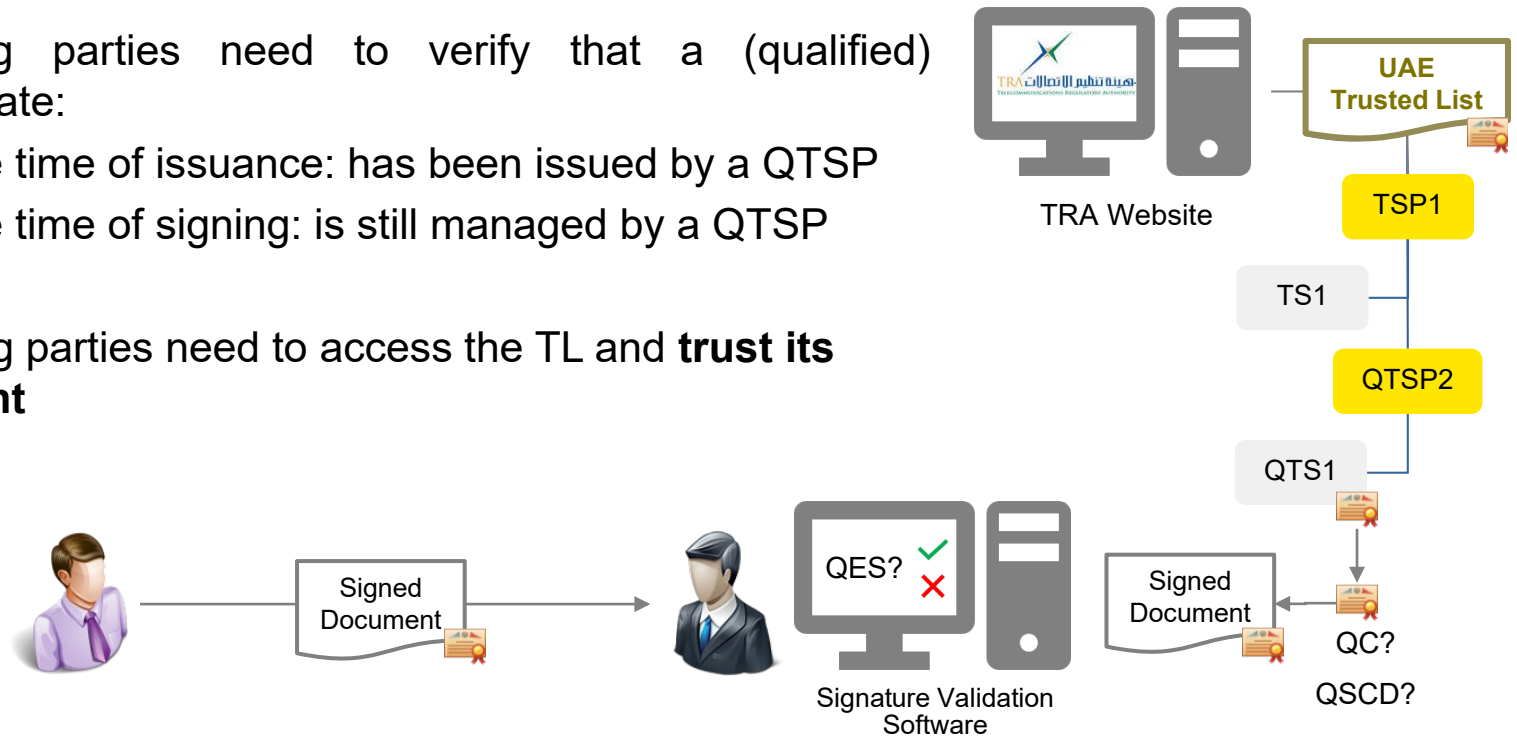


Qualified signature/seal validation

Relying parties need to verify that a (qualified) certificate:

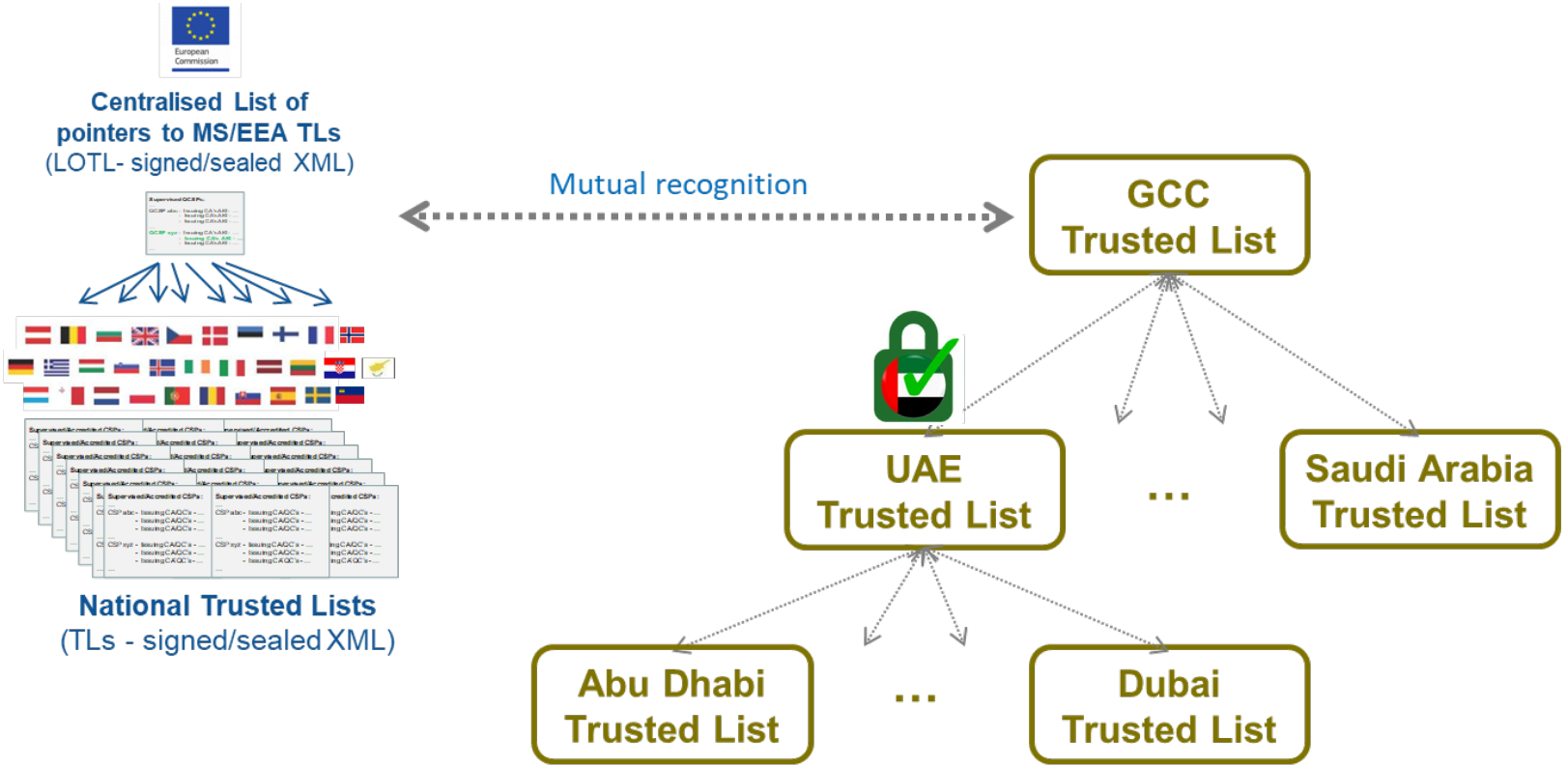
- At the time of issuance: has been issued by a QTSP
- At the time of signing: is still managed by a QTSP

Relying parties need to access the TL and **trust its content**

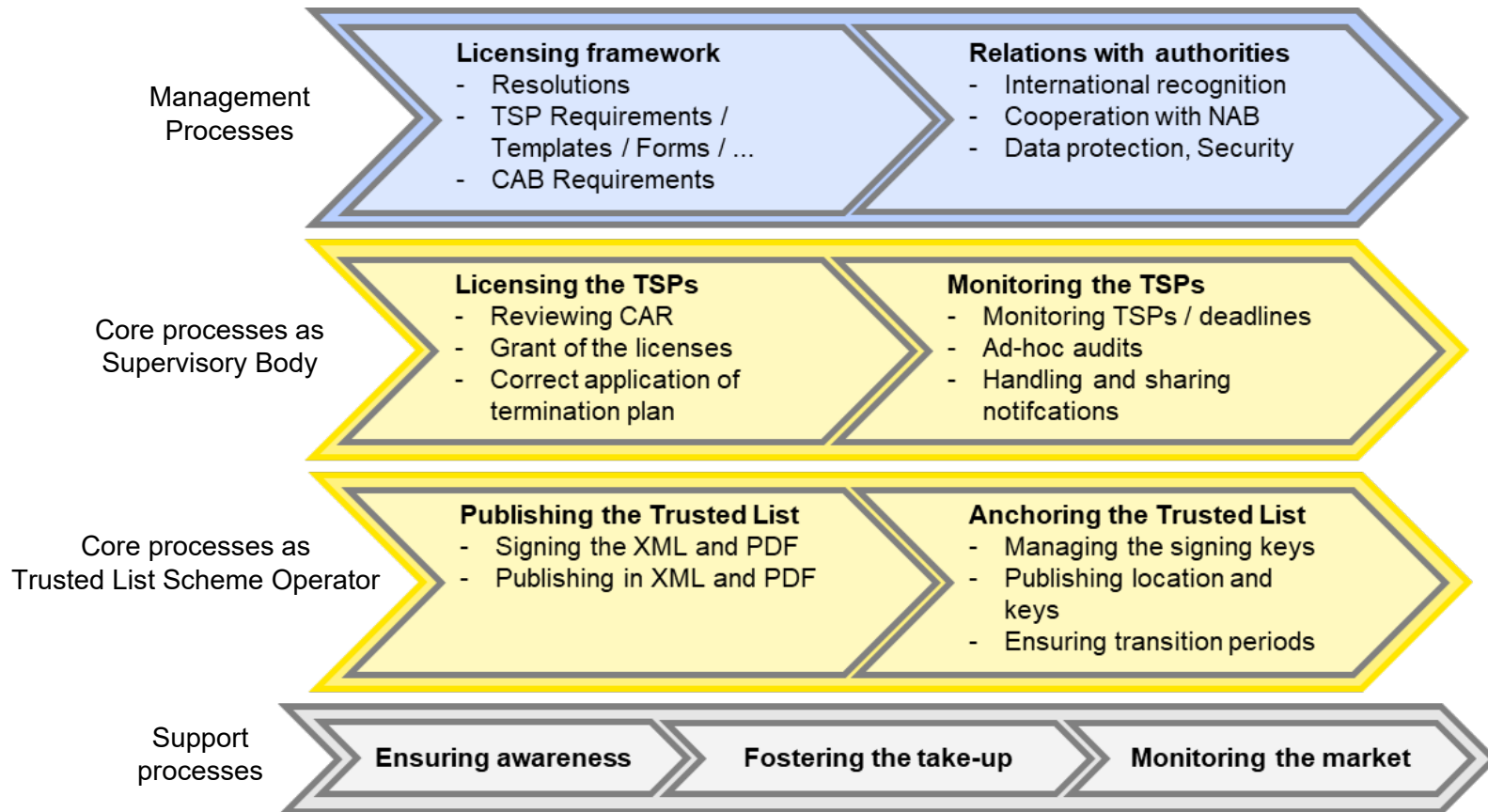


A federated model

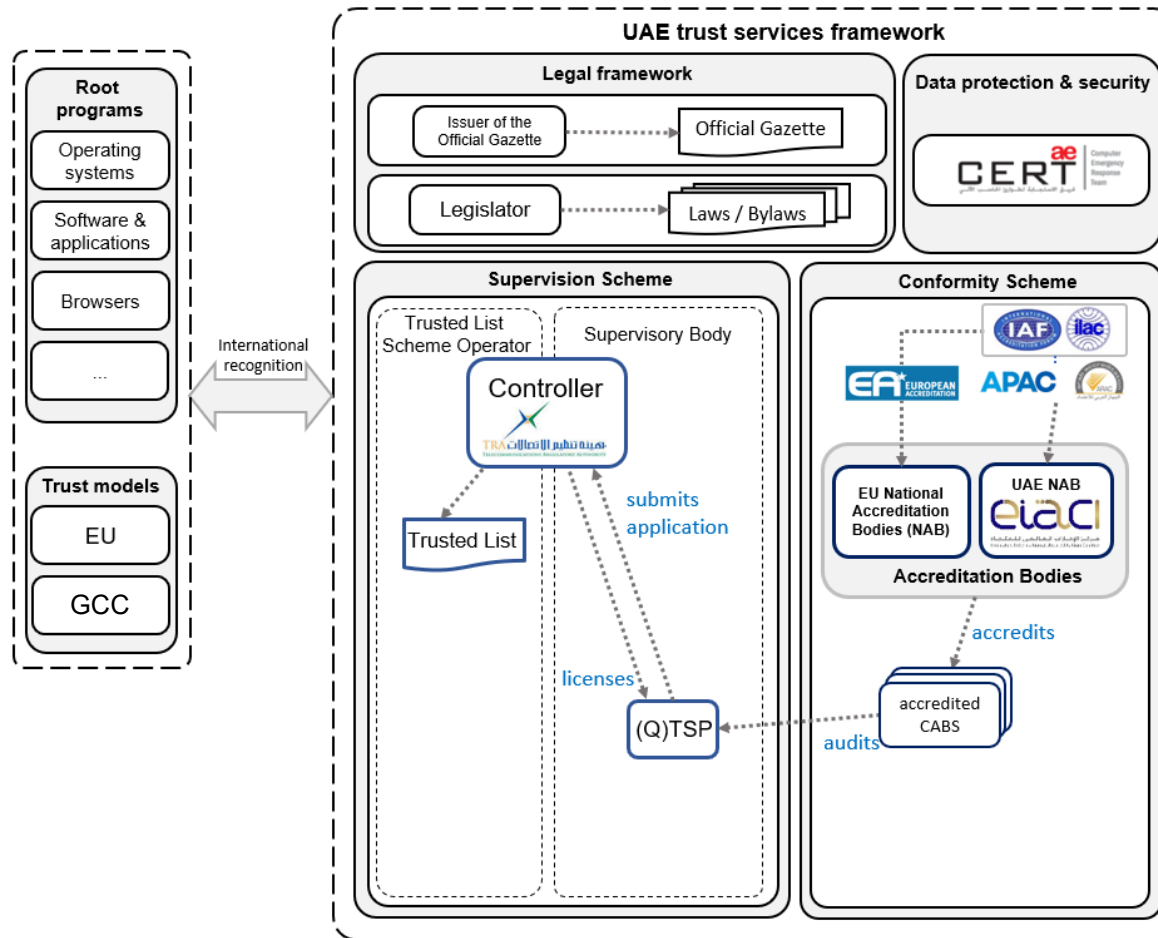
Similarly to EU, a **flexible** federated model that can be designed for operations at various **levels**.



TRA Processes



Stakeholders eco-system



Next Steps

- Finalizing the new draft law
- Finalizing the technical regulations
- Migrating to the new framework
- Setting up the trusted list management platform
- Awareness on the new framework
- Pursue International recognition
- Drive the PKI promotion and adoption

Thank You

