

# Electronic Ledgers in the eIDAS Regulation Revision

Paolo Campegiani

pca@bit4id.com



# The eIDAS Regulation

A crash course on EU law!

- The European Union and the Single Market
- The *Digital* Single Market
- The eIDAS (electronic identification and trust services for electronic transactions in the internal market) *Regulation*
- Two relevant areas of intervention
  - Cross-border recognition of nationally issued electronic identities
  - Cross-border validity of trust services provided by private parties

## Then, on September 2020...

State of the Union Speech from President of the European Commission, dr. Ursula von der Leyen

We want a set of **rules that puts people at the centre**. Algorithms must not be a black box and there must be clear rules if something goes wrong. The Commission will propose a law to this effect next year.

This includes **control over our personal data** which still have far too rarely today. Every time an App or website asks us to create a new digital identity or to easily log on via a big platform, **we have no idea what happens to our data in reality**.

That is why **the Commission will soon propose a secure European e-identity**.

**One that we trust** and that any citizen can use anywhere in Europe to do anything from paying your taxes to renting a bicycle. A technology where we can control ourselves what data and how data is used.



## Trust Services in eIDAS2 (The Revision of eIDAS)

'trust service' means an electronic service normally provided against payment which consists of:

- A. the creation, verification, and validation of **electronic signatures**, electronic seals or electronic time stamps, electronic registered delivery services, electronic attestation of attributes and certificates related to those services;
- B. the creation, verification and validation of **certificates for website authentication**;
- C. the **preservation of electronic signatures**, seals or certificates related to those services;
- D. the **electronic archiving** of electronic documents;
- E. the management of **remote electronic signature** and seal creation devices;
- F. the recording of electronic data into an electronic ledger.**

## Electronic ledgers (from the Recital)

What are they?

**Qualified electronic ledgers record data in a manner that ensures the uniqueness, authenticity and correct sequencing of data entries in a tamper proof manner.** An electronic ledger combines the effect of **time stamping of data with certainty about the data originator** similar to e-signing and has the additional benefit of enabling more decentralised governance models that are suitable for multi-party co-operations. For example, it creates a reliable audit trail for the provenance of commodities in cross-border trade, supports the protection of intellectual property rights, enables flexibility markets in electricity, provides the basis for advanced solutions for self-sovereign identity and supports more efficient and transformative public services. To prevent fragmentation of the internal market, it is important to define a pan-European legal framework that allows for the cross-border recognition of trust services for the recording of data in electronic ledgers.

## Definition of electronic ledger from the eIDAS2

*'electronic ledger'* means a **tamper proof** electronic record of data, providing **authenticity** and **integrity** of the data it contains, **accuracy** of their date and time, and of their **chronological ordering**

## Legal effects of electronic ledgers

- 1) An electronic ledger shall not be denied legal effect and admissibility as evidence in legal proceedings solely on the grounds that it is in an electronic form or that it does not meet the requirements for qualified electronic ledgers.
2. A *qualified* electronic ledger shall **enjoy the presumption** of the uniqueness and authenticity of the data it contains, of the accuracy of their date and time, and of their sequential chronological ordering within the ledger.

# Requirements for electronic ledgers

Qualified electronic ledgers shall meet the following requirements:

- a) they are created by one or more **qualified trust service provider or providers**;
- b) they ensure the **uniqueness, authenticity and correct sequencing of data entries** recorded in the ledger;
- c) they ensure the **correct sequential chronological ordering of data** in the ledger and the accuracy of the date and time of the data entry;
- d) they record data in such a way that **any subsequent change to the data is immediately detectable**.

(skip some more legal parts)



## So, what we have to do now?

We have to do a preparatory groundwork on the standardization of qualified electronic ledgers

This could be very similar in scope to ETSI ESI series on trust services

We have to answer to a *lot* of questions!

A stylized map of Europe rendered in red line art with small white dots at the vertices. The text "bit4id.com" is centered over the map.

bit4id.com

**Paolo Campegiani**  
pca@bit4id.com