Bundesamt
für Sicherheit in der
Informationstechnik

Trust?

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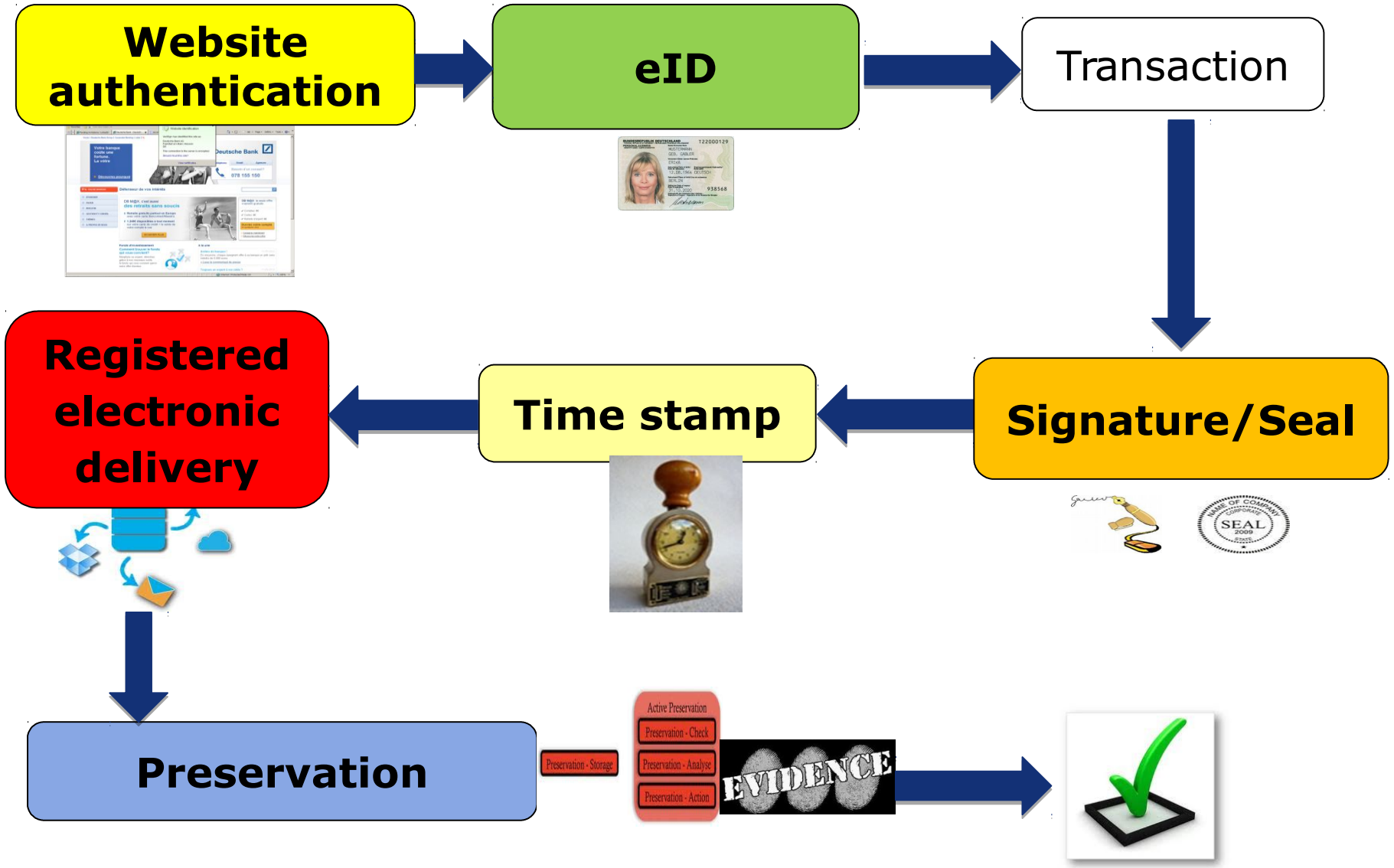
eIDAS Regulation

Recital (1)

Building trust in the online environment is key to economic and social development. Lack of trust, in particular because of a perceived lack of legal certainty, makes consumers, businesses and public authorities hesitate to carry out transactions electronically and to adopt new services.

[Remark: Why is „lack of legal certainty“ singled out? What about a „lack of trustworthiness“ or „lack of trust in correct handling of personal data“?]

eIDAS Regulation



Germany

- Electronic identification for natural persons
  - Card based „Personalausweis“
- Qualified signature since 1999
  - ... and Time Stamps, Long Term Preservation
  - No seals until eIDAS
- Registered electronic delivery
  - De-Mail
- Trusted electronic services key to eGovernment
  - Take up: mixed

De-Mail

Trust is (a) key – random examples

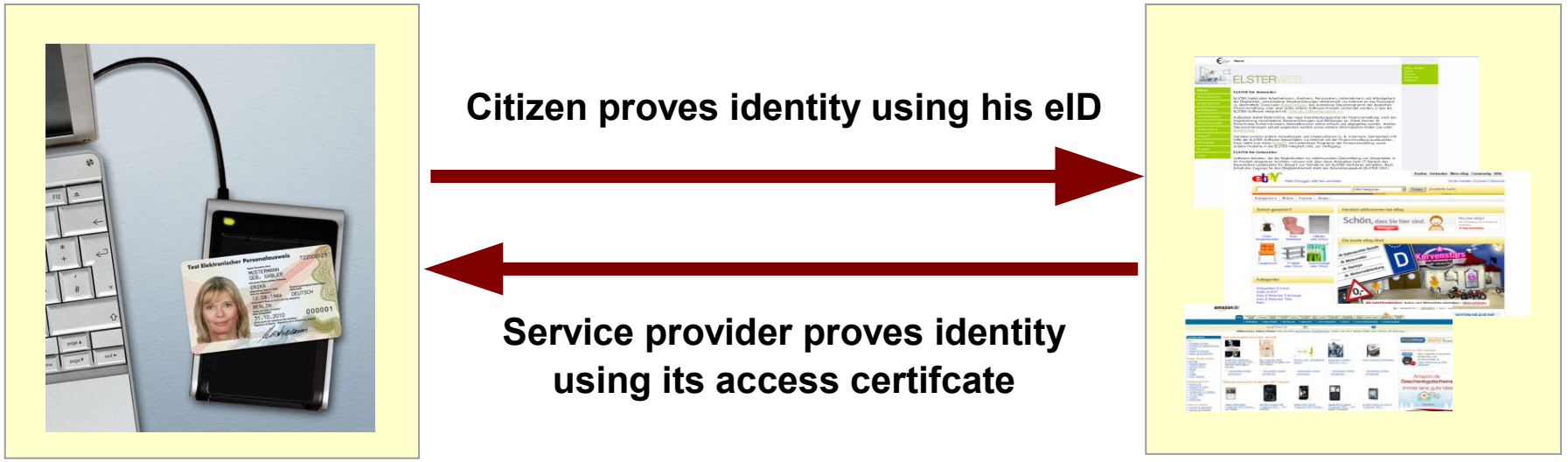
- Online transactions: Trust between citizen and service provider
  - Citizens need to trust issuer of eIDs
  - Service provider need to trust issuer of eIDs
  - If 3rd parties are involved (e.g. IdP), they need to be trusted
- Does a (Q)ERDS-provider respects confidentiality of data?
  - eIDAS only requires integrity/authenticity...
- Is a CA issuing qualified certificates doing its job?
- Remote Signatures
  - How to authenticate users?
  - is access to keys sufficiently controlled?

Trust Model – The simple one

Example: German eID Card

- Gov issues eID Cards and grants access to service provider
  - All other parties (vendor, CAs, …) are supervised by Gov

  → Only one party needs to be trusted by both sides



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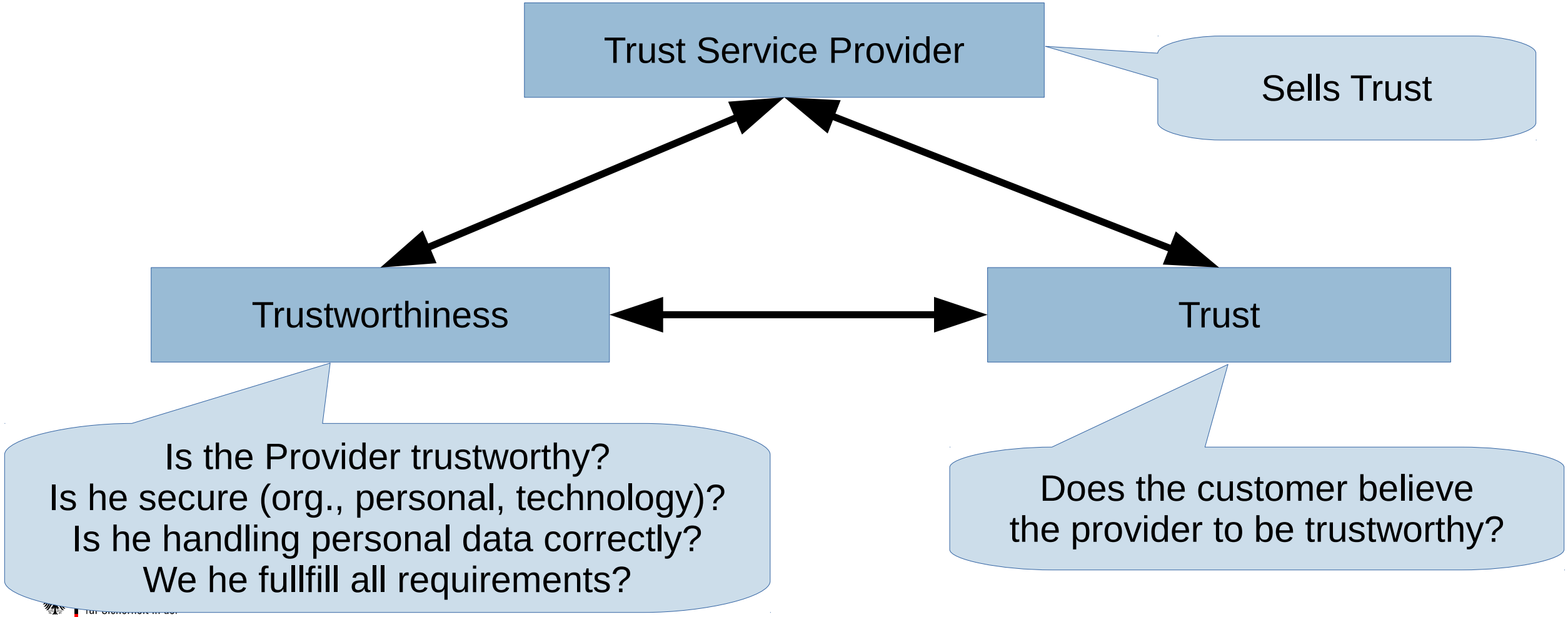
Trust Models – More complex

- Qualified certificates on national level
  - Several CAs, audited by different CABs
  - But: Common supervision

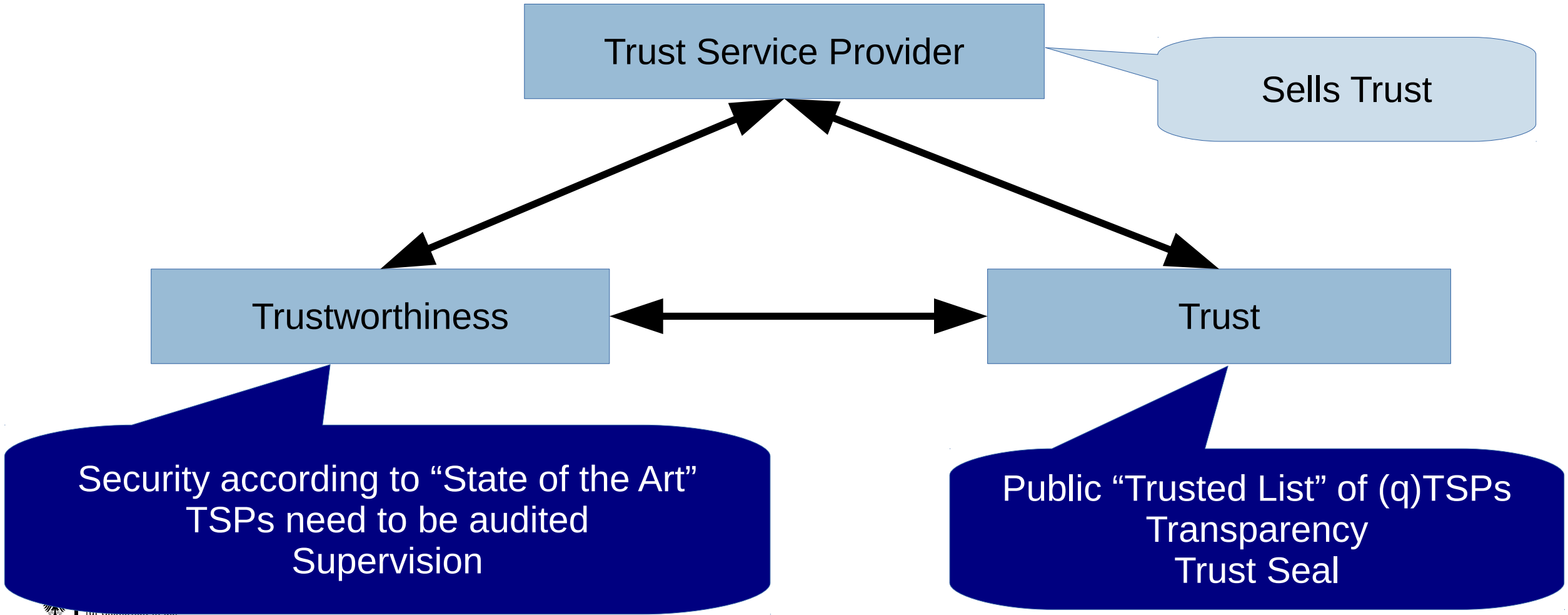
- Registered Electronic Delivery
  - Sender ↔ (Q)ERD Service Provider S ↔ (Q)ERD Service Provider R ↔ Recipient
  - In DE: Common rules „Technical Guideline De-Mail“
  - Nationally: Common supervision

- Everything gets more complicated if we cross borders
  - No common supervision
  - Not necessarily common standards

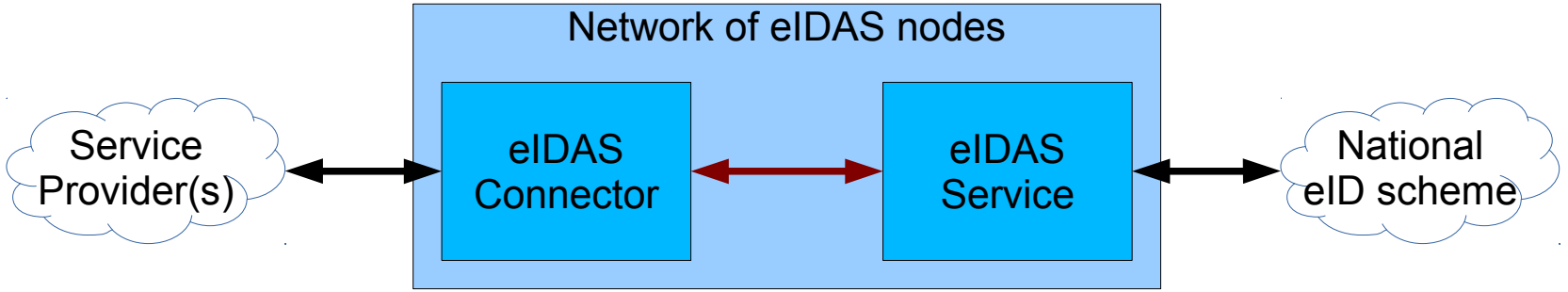
Trust and Trustworthiness



eIDAS – Crossborder trust for Trust Services



eIDAS – Crossborder trust for eIDs



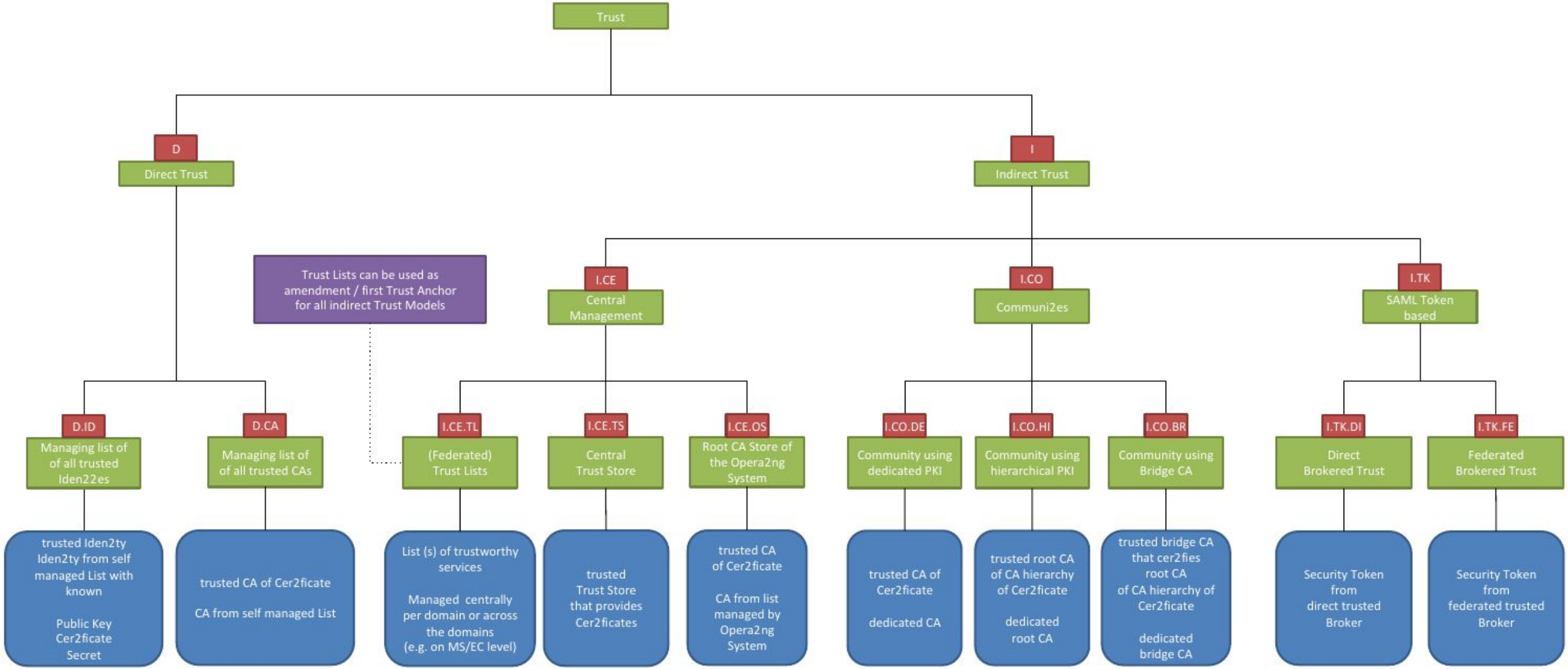
- Security of Nodes via requirements in Implementing Act
- National eID schemes
  - Trustworthiness assessed via „Level of Assurance“
  - Trust via notification and peer review
- Service Provider?

Trust Models – The Mess

Qualified website certificates

- Several hundred CAs worldwide issuing website certificate
  - Any CA can issue a certificate for any domain
- Managed by Trust Store in Browser / Operating System
  - Who is managing these Trust Stores?
  - Is Security/Trustworthiness part of their business model?
  - Have security failures impact on their business?
- User delegates trust decision to third party
  - But choice of browser rarely depends on „quality“ of TS

Trust Models – eSENS



We need...

- … electronic services for ...
  - Identification of persons and things
  - Document authenticity and integrity
  - Document transmission
- … in order to facilitate ...
  - eGovernment
  - eBusiness
  - Digitization of „everything“
- … and they need to be …
  - Trustworthy
  - Trusted
  - Usable for their purpose

Thanks for your attention!

Contact

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