

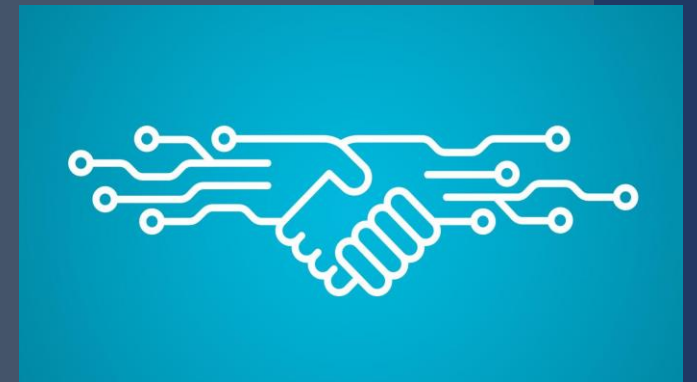


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Bauen und IT:

Smart Contracts in
Construction Law:
a special focus on
deeds



Smart contracts: current context



- Resistance in English (and German) law to global momentum of AI/blockchain
- Neglects potential usage alongside traditional language-based contracts
- Ignores advantage of operating as a shared ledger of data: transparent, collaborative, auditable

Source code example

```
// Guard  
against  
missing  
temperature  
readings
```

```
let readings :  
SensorReading  
[]  
=  
request.shipm  
ent.sensorRea  
dings ?? [];
```

```
enforce  
readings != []
```

```
else throw  
ErgoErrorRes  
ponse{  
message :  
"No  
temperature  
readings  
received"};
```

Obstacles



Solutions



Uncertainty/lack of understanding

Perception that the construction industry cannot cope with paper contracts

Intermediaries, information and payment delays, lack of industry trust

Contracts as reciprocal data exchange

Continuum with existing forms of automation and contract law

Practical problems

Procurement:
paperwork, many
intermediaries, long
processing times,
information delay,
disputes

Time

Cost

Quality

Lack of cross-
referencing with BIM,
IOT, robotics

Tracking procurement
workflows
Less data transparency

Buyer to supplier
cash flow

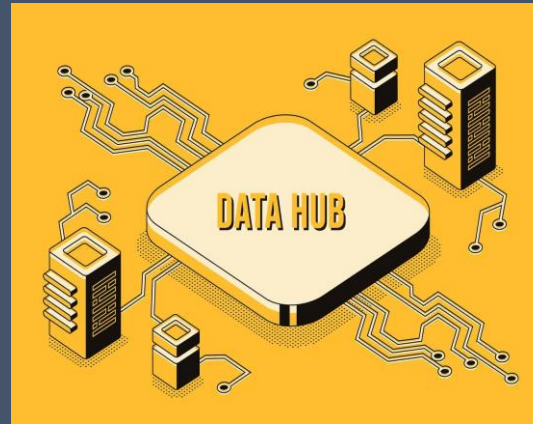
Information
irregularity,
Slow payments,
reduced
productivity

Bidding and tendering- less secure and
verifiable identity

Smart contracts in construction

Information hubs:

BIM
IOT



Procurement:

source selection,
quotation request,
vendors selection

Outcome management:

Cash flow
Payment
Dispute resolution

Contractual:

Tendering

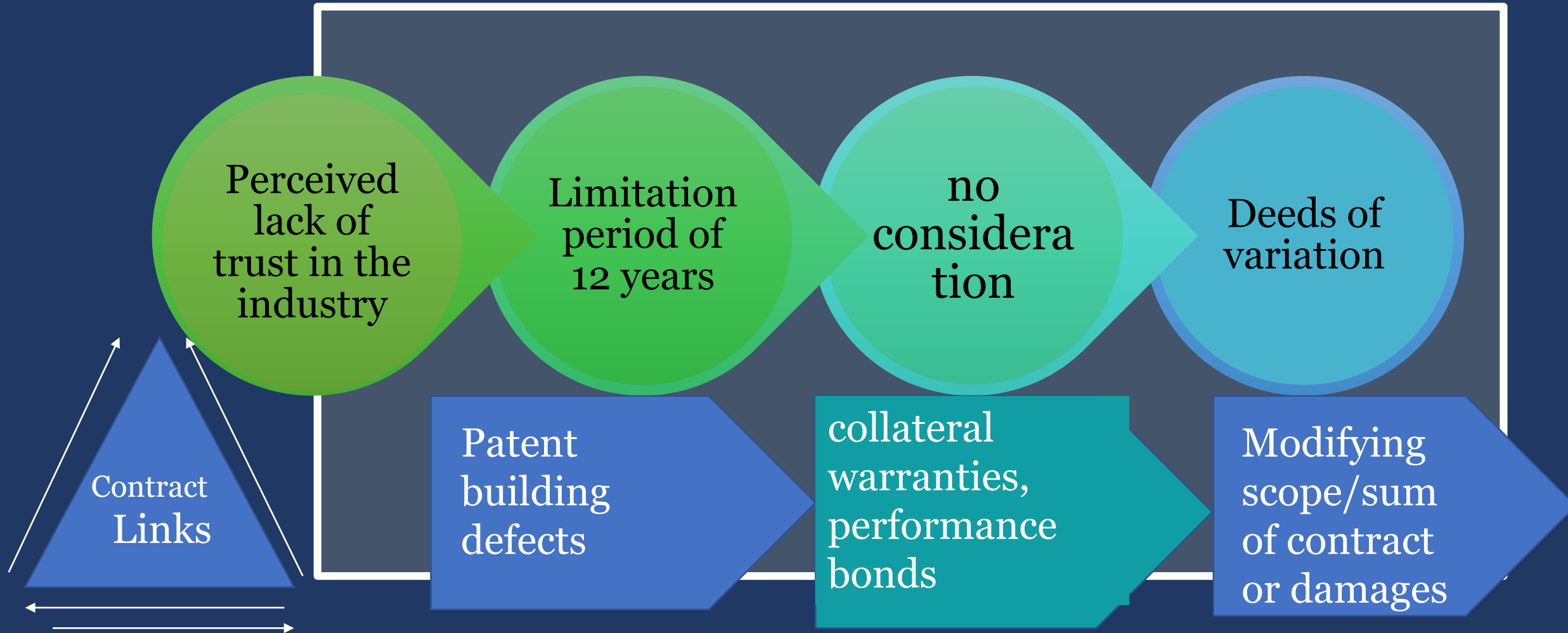
Contractor selection

Comfort letters

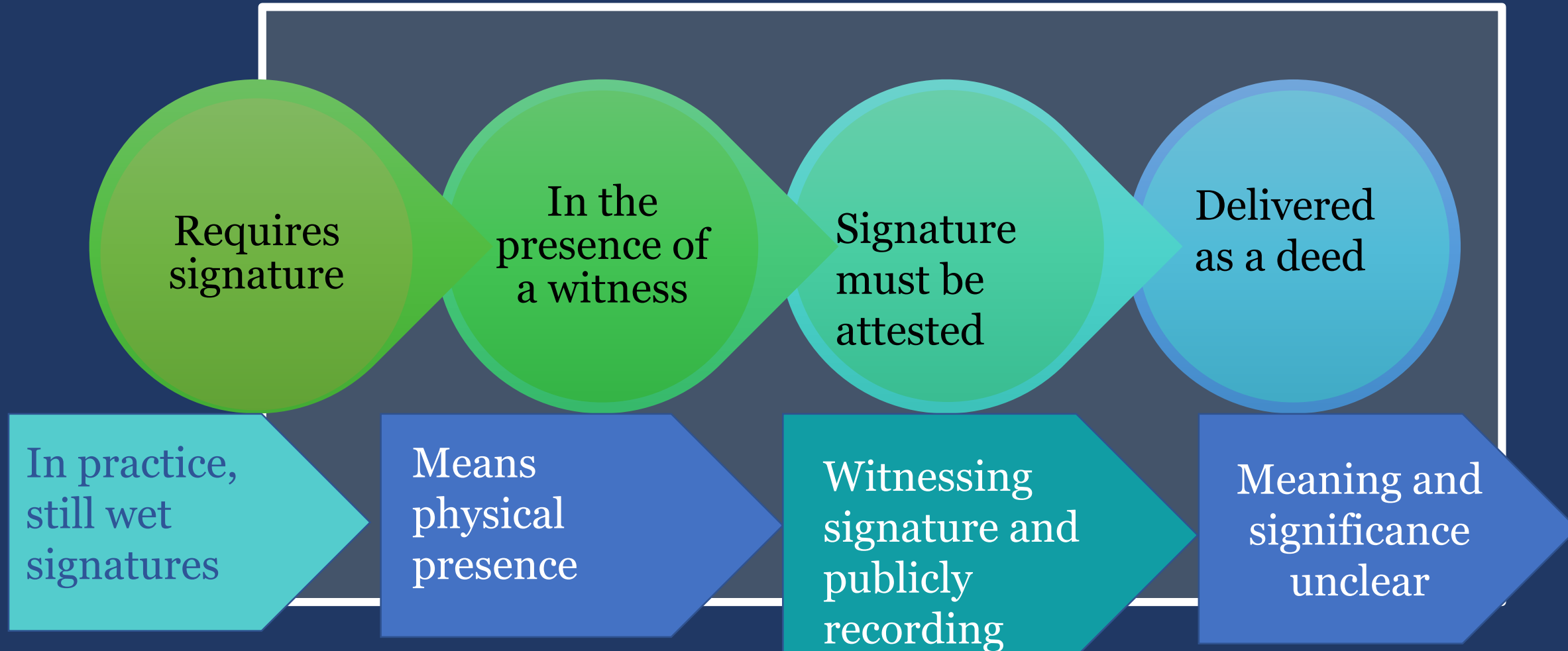
Standard-form contracts

Sub-contracting

Deeds in English construction law



Formality issues with deeds



Contracts in written form (including deeds of surety): sec 126 BGB

Declaration in a physical document, signed in the issuer's own hand, sent by hand, courier or post. Handwritten signatures may be replaced by QES.

Certification, for commercial/land Register applications: sec. 129 BGB

Declaration in writing + signature of issuer certified by notary/public certification authority. Personal presence of the issuer before notary/authority required.

Notarisation, sec. 128 BGB

Declaration **read aloud (!)** by/in front of notary, signed by issuer and countersigned by notary. Personal presence of issuer required during the entire reading.

Problems with outdated documents



- Outdated formalities post-Covid 19
- Delays and costs of physical presence
- Little data security
- Fraud
- More scope for user error
- Less transparency

Electronic and smart deeds: current position

Technology here, but
needs certainty of
legal position

E-platforms/hubs:
DocuSign and other
platforms

Collation of
information, similar
to eIDAS Regulations



Fraud: electronic
deeds create a
checkable audit trail

Qualified Electronic
Signatures

Rectification:
missing
signatures/information/

Data protection and
security

Efficiency: easy
upload/download of
document packages

Electronic and smart deeds: future?

Smart deeds= deeds
implemented by code
Code as universal
contractual
language

E-platforms/hubs
enhanced: fusion of
technology and
external
environment: *E-
Lebenswelt*



**Innovation, not
automation**

Video witnessing

**Digital verification:
retinal/fingerprint**

Real-time updates and
organisation for all
parties to a contract

Digital lawyers:
scrutiny/algorithms
organisation

Auto-verification

Outcomes, not lawyers:
Susskind



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Questions?

