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secure paperless trade

Permissioned Blockchains
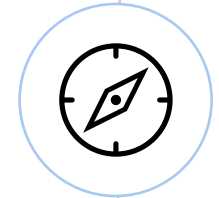
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Who is the Controller?

haptik

agenda

David Saive, Universität Oldenburg | haptik.io

Permissioned Blockchains

Re-centralization of Blockchain and its consequences for data protection

Controllers and the GDPR

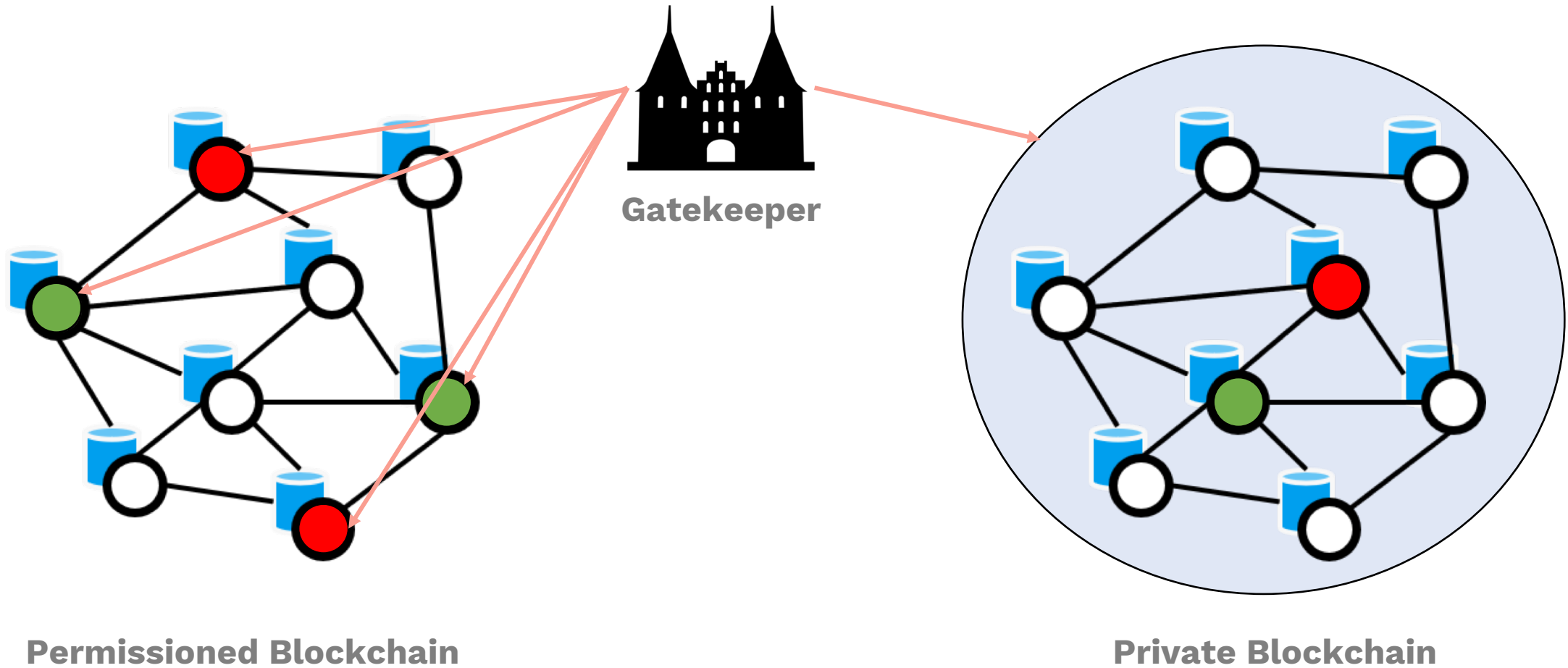How do we apply a centralized regulation on a decentralized network?

Consequences for the usage of Blockchain
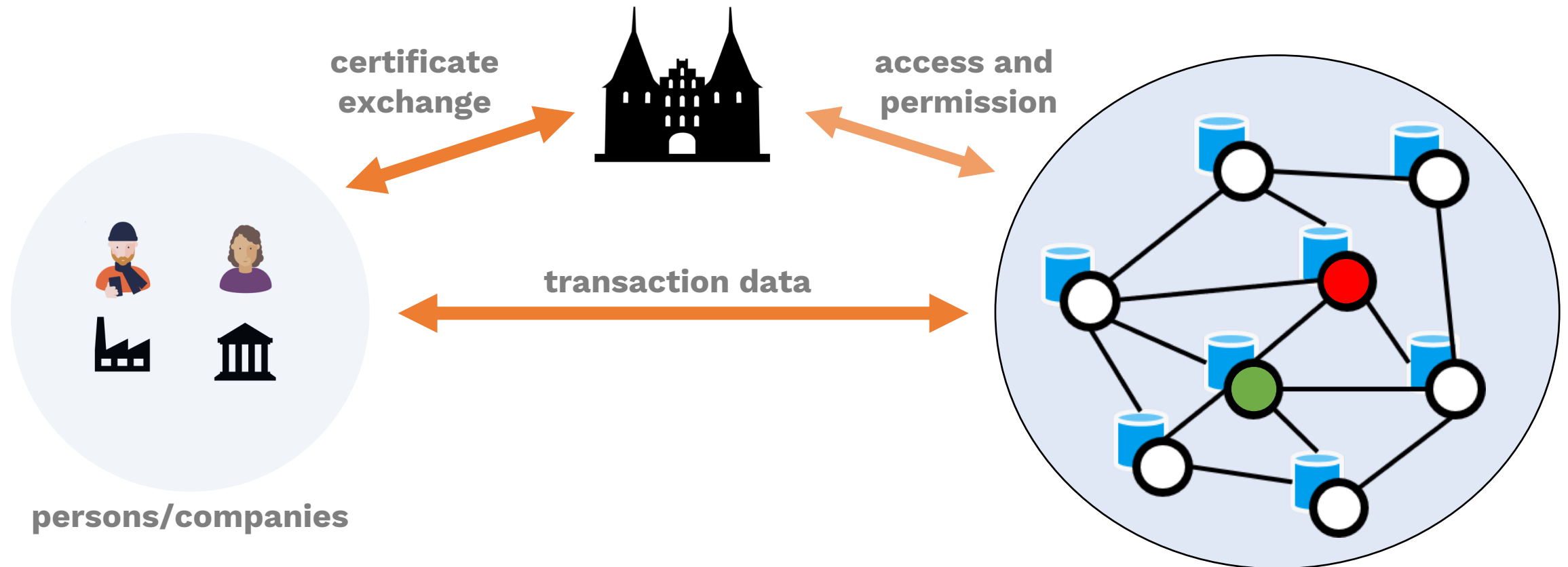
How is the GDPR affected by corporate law?

Private and permissioned Blockchains
Re-centralization in a distributed world

Gatekeeper

Permissioned Blockchain

Private Blockchain

Private and permissioned Blockchains
Gatekeeping and authorization

certificate exchange

access and permission

transaction data

persons/companies

No direct transaction exchange between gatekeeper and blockchain!

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GDPR's definition of data control

Art. 4 Nr. 7 GDPR

The natural or legal person, public authority, agency or other body which, <u>alone</u> or <u>jointly</u> with others, <u>determines</u> the <u>purposes</u> and <u>means</u> of the processing of personal data

GDPR's definition of data control

The ECJ's opinions

Broad definition of the concept of 'controller', effective and complete protection of data subjects

C-131/12, par. 34 (Google Spain)

However, a natural or legal person who exerts influence over the processing of personal data, for his own purposes, and who participates, as a result, in the determination of the purposes and means of that processing, may be regarded as a controller

C-25/17, par. 68 (Jehova's Witnesses)

Rather normative approach!

Using a blockchain for data processing
Decisions about the purpose and means

People/companies decide to:

1. Digitize a certain use case

2. Use a blockchain for that use case

3. Use a specific blockchain architecture

4. Use a central instance if they opt for a permissioned blockchain

5. Process specific personal data

Who controlls a permissioned blockchain?
No data processing without a controller

1. Software developer?

2. Gatekeeper as controller?

3. Joint control between all the nodes?

4. Joint control between gatekeeper and all nodes?

5. Legal entity that is formed by nodes?

Who controlls a permissioned blockchain?
Software developer?!

- Software developer creates the underlying implementation for a blockchain-based network

  Creates the <u>means</u> of data processing, but does not decide on it!

Who controlls a permissioned blockchain?
Gatekeeper as single controller?!

- Gatekeeper manages access to and permissions inside a blockchain-based network

  In general, gatekeepers do not decide on the purpose of the blockchain, but only on who is allowed to enter and participate.

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GDPR's definition of data control
Joint control, Art. 26 GDPR

Where two or more controllers jointly determine the purposes and means of processing, they shall be joint controllers

GDPR's definition of data control

The ECJ's opinion on joint control

Gefördert durch:
Bundesministerium
für Wirtschaft
und Energie

Furthermore, the joint responsibility of several actors for the same processing, under that provision, <u>does not require each of them to have access</u> to the personal data concerned

(C-40/17, par. 69 (FashionID)

Who controlls a permissioned blockchain?

Joint control between all nodes?!

- Together, the nodes form the network itself

In <u>Public Blockchains</u> nodes only decide on a transactional basis and

<u>not on the whole network's purpose</u>.

In <u>Permissioned Blockchains</u> a <u>joint decision can be made</u> about the

use of a Blockchain for a specific use case.

Who controlls a permissioned blockchain?

Joint control between gatekeeper and nodes?

Only, if there is a specific agreement on the purpose of the blockchain between nodes and gatekeeper
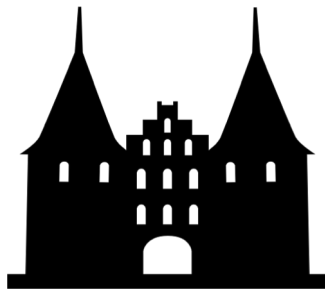
„We want to use a blockchain for <u>our</u> use case!"

Who controls a permissioned blockchain?
Legal entity that is formed by nodes?

Two options possible:

1. Persons/companies form a legal entity in the first step
   - Legal entity decides to digitize a specific use case with a blockchain together with all persons/companies it includes (accessoriness)
   - Joint control between legal entity and all parties/nodes included

Who controls a permissioned blockchain?

Legal entity that is formed by nodes?

Two options possible:

2. Persons/companies form a legal entity by creating a blockchain
   - GbR/general partnership through sole participation
   - Duty to erect and maintain the blockchain
   - <u>Joint control between all nodes</u>
   - (P) Do the parties really want to set up a legal entity?
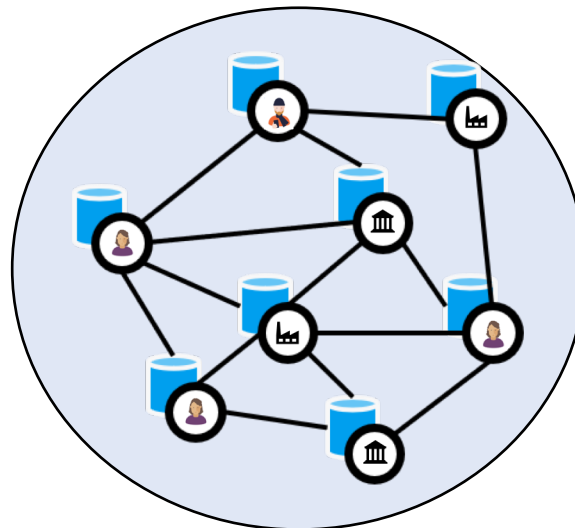
David Saive
Wissenschaftlicher
Mitarbeiter
david.saive@uol.de

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