Blockchain and data privacy
Agenda

• DPOs & Blockchain

• What is blockchain? (high level view)

• Blockchain & the global legal landscape

• The regulatory future of blockchain

• What next
What is a DPO?

Officer or Office?

Sectors:
- Technology
- Retail
- Hospitality
- Financial services
- Healthcare
- Legal

Background:
- Barristers
- Solicitors
- Regulatory background
- Analysts
- Cyber Security & Tech specialists
DPOs & Blockchain

• Intermediary with the supervisory authority

• Analysis of governance structures
  • Review and update policies
  • Implement privacy by default and design

• Identify, manage and contain data related risks
  • DPIA analysis, Data Subject rights (RTBF, SARs)
  • Breach notifications, data retention

• Ongoing review of new regulatory challenges
What is blockchain?

• Method for sending / receiving encrypted information

• Fast, secure, and no central regulation is required
Bitcoin explained in one minute

https://youtu.be/6VMpymXhjk8
Fields of application

• Serious cryptocurrencies
  • Bitcoin, Litecoin

• Less serious cryptocurrencies
  • Garlicoin?
Other applications

• Legal field
  • Smart contracts

• Financial markets
  • Payment services
  • Encryption of sensitive information

• Healthcare
  • Logging long-term care
The global legal landscape

- **China**
  - Banned initial coin offerings
  - Cryptocurrency trading crackdown
  - In 2017, Chinese bitcoin miners 50% of worldwide miners
  - Blockchain standards top of the agenda
  - Positive towards smart contracts and other utilities

- **U.S.A.**
  - Coca-Cola teams up with US State department
  - Registry of workers worldwide through blockchain
  - More liberal towards blockchain

- **India**
  - Fintech Valley Vizag
  - Vehicle registrations, managing land records
  - Favours discontinuation of bitcoin
  - Pending court challenge cryptocurrency

- Problem: data transfer & localisation?
The EU: Applying Data Protection law

• Does the GDPR apply to Blockchain technology?

• Is encrypted information still ‘personal data’?
  • Metadata, transactions data as personal data

• Platform providers
  • Private / public / pseudo
  • Digital wallets

• GDPR: not designed for purpose?
  • Not decentralised systems
# Fundamental principles of the GDPR

- Article 5 GDPR

<table>
<thead>
<tr>
<th>Fundamental principles</th>
<th>Blockchain</th>
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<tbody>
<tr>
<td>Processed lawfully, fairly and in transparent manner</td>
<td>Not transparent – due to encryption</td>
</tr>
<tr>
<td>Collected for specified, explicit and legitimate purpose</td>
<td>Arguably legitimate – for authentication purposes</td>
</tr>
<tr>
<td>Adequate, relevant and limited to what is necessary</td>
<td>Not necessary - ledger exists forever</td>
</tr>
<tr>
<td>Accurate and where necessary, kept up to date</td>
<td>May not be accurate – and no way to delete it</td>
</tr>
<tr>
<td>Identification for no longer than necessary</td>
<td>Not necessary – ledger exists forever</td>
</tr>
<tr>
<td>Processed in a manner that ensures its security</td>
<td>Secure – due to encryption</td>
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</tbody>
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GDPR and Blockchain: anonymity?

• Identification of the people behind the transaction
  • Triangulation using the information on the ledger
  • The ledger is public and always available
GDPR and Blockchain: incompatible?

• The ledger and rights of individuals
  • Contains information that is accessible to all, forever

• The right to be forgotten – article 17 GDPR

• Data retention – article 5(e): no longer than necessary?
  • But is retention for authentication purposes ‘necessary’?

• Privacy by design – impossible?
The GDPR: designed for cloud services

- Traditional – centralised system storing information
- Information can be deleted from the cloud
GDPR and blockchain: No middle man

• Blockchain is decentralised
• Everybody has a ledger
Future views on blockchain

• Possible consequences – should we block blockchain?

• Views of the regulators
  • Ireland -- Discussion paper
  • United Kingdom – ICO’s Grant Programme

• Who are liable? The processors and controllers.
  • Providers of p2p platforms, software for users, hardware providers
DPOs and mitigation of risk

• Intermediary between the client and regulator
  • Voicing the corporate reality

• Analysis of governance structures
  • In what way has blockchain been implemented?
  • Potentially problematic?

• Blockchain related risks
  • Centralised blockchain platforms
  • Regulator stance on what is personal data

• Ongoing review of new regulatory challenges
  • Developing the approach towards blockchain globally
In conclusion

• The future is uncertain

• Blockchain is growing in importance

• Blockchain is not always anonymous

• Either exempt blockchain technology or data protection law needs to catch up

• Or can we perhaps reach a compromise?
What next?

• Call to action – we are speaking to Supervisory Authorities on blockchain and emerging technologies. We welcome your input.

• Do get in touch..

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