

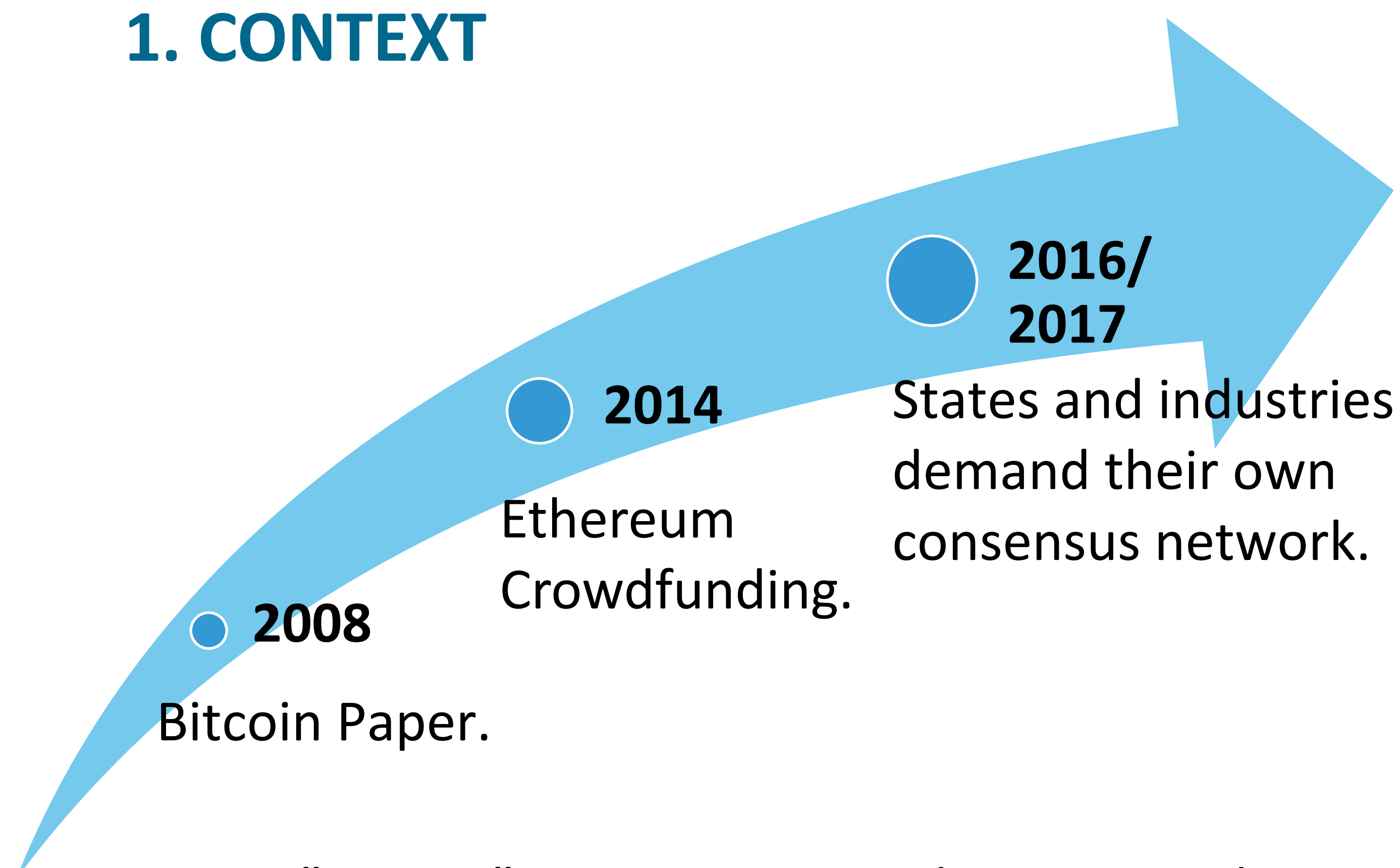
Blockchain Technologies and the Law: an Interdisciplinary Study

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1. CONTEXT



Paper "Bitcoin": A peer to peer electronic cash system"

- **Banks and states can no longer be trusted actors.**
- **New IT system** (units : "bitcoin") allowing transfers from one address to another **with a network consensus.**
- **Anyone** (who has a computer) **can take part in the authentication.**
- **Validated data will be known and verifiable by all.**

Ethereum: Network development where all the network's peers execute and store programs.

- **Organize the interactions of anonymous and distant people with confidence where the legal systems failed.**

Bring security concern which represents (from a technical and legal perspectives).

- **Need of bring up consensus networks from a legal perspective.**
- **Focus on public perception and consumer confidence related to this technology.**

3. RESEARCH QUESTIONS AND OBJECTIVES

- **Expose the legal framework** which could be applied to both: container (the IT system) and content (the data).
- **Analyze the way how the legal practitioner can deal with this technology and all its related issues.**

How the substance of the relationships existing between consensus networks and law, and potential improvement that come along, can be assessed and appreciated?

4. RESEARCH METHODOLOGY

Phase 1

- State of the art, the semantic study and the study of use cases.

Phase 2

- Study of the actors and their interactions.

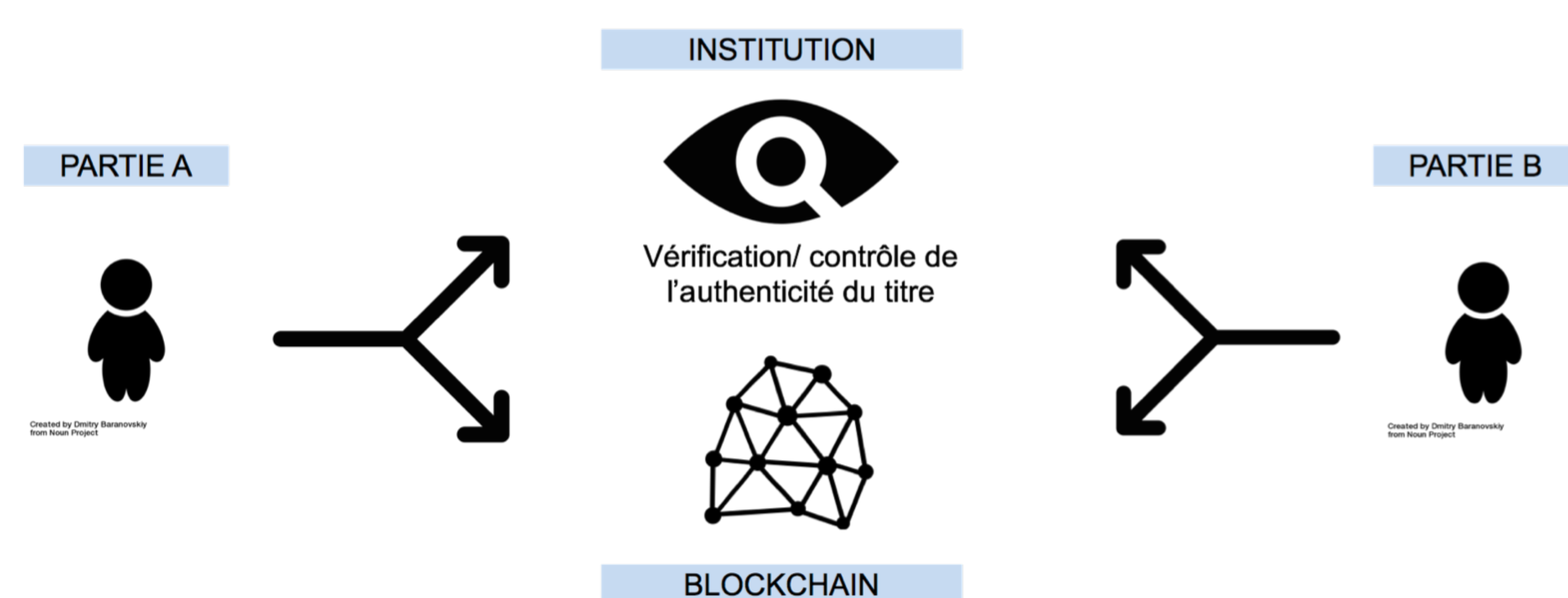
Phase 3

- Proposition of a technical scheme in perspective with legislation.

5. CASE STUDY

Two different types of IT system are studied :

- **Blockchain public system** (Peers are **not identified ex ante**), e.g: Bitcoin, Ethereum.
- **Blockchain private system** (Peers are **identified ex ante**), e.g: Corda, Quorum, Multi-chain.



6. FUTURE WORK

- **A clear definition of the legal impacts** of the use of the technology for online services.
- **The legislation which may apply** to the actors of these technologies.
- **Potential improvement** that come along.

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Scientific domain: Infrastructure and Networks
Program: Smart Territories
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