



WIPO

WORLD
INTELLECTUAL PROPERTY
ORGANIZATION

**CWS/9 Agenda Item 7(b)
“Report on the Blockchain
Whitepaper for IP ecosystem”**

Topics for discussion

- Objectives and composition of the Whitepaper
- Preparatory activities
- Key features of Blockchain and Blockchain Rationale
- Overview of IP ecosystems and Blockchain uses
- Potential Blockchain applications in IP ecosystems
- Key findings and Considerations & Areas of future works
- Mockup: Decentralized Identifiers

Main objectives of Whitepaper

Gather information on how blockchain is perceived in general and within IP community

Explore the opportunities and challenges of using blockchain technologies for IP

Analyze implications of blockchain applications in IP space

Identify potential applications of blockchain in IP ecosystems

Support the Blockchain Task Force

Suggest recommendations for consideration

Whitepaper consists of

Executive Summary & Main body with 4 Annexes

Annex I: Overview of IP ecosystems

Annex II: Survey results

Annex III: Potential use cases

Annex IV: Mock-up DIDs

Preparatory Activities

Desk Research on BC based applications:

- Projects/initiatives/research works related to IP in the last 4 years
- Applications are being used or explored around the globe in all IP value chain, but still in PoC or pilot

Survey: 139 responses from IPOs and IP industry

- Questionnaire: 6 sections and 64 questions
- Majority of participants work in IP legal services (40%) and management (31%) focusing on the protection and management phases of the IP ecosystem.

Interviews with 10 organisations and entities

Whitepaper Webinar and Publication

Webinar on WIPO blockchain whitepaper

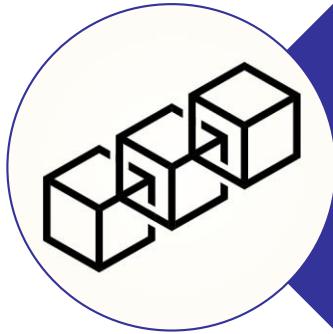
- [Webinar toward launch of the whitepaper held on September 28, 2021](#)

CWS/9 - factual information checking

- Feedback from one CWS member on the whitepaper mainbody
- Improvement on Annexes III and IV

Publication in November 2021

Key features of Blockchain



- Decentralization, distributed ledgers, consensus mechanisms, immutability of records and encryption



- Tokenization, Smart Contracts, Automation and Self-Sovereign Identity (SSI)

Blockchain Rationale in IP ecosystems

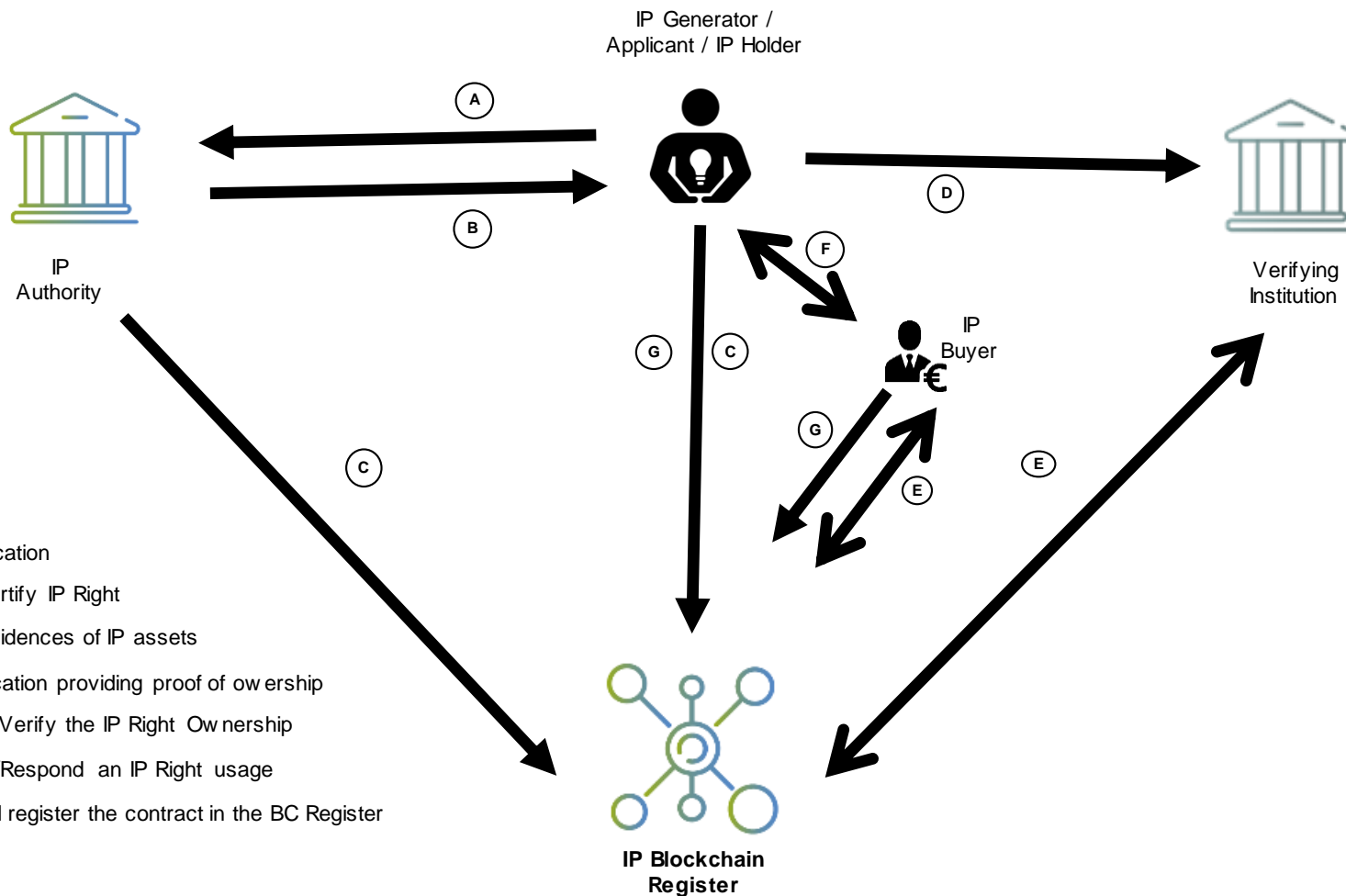
Some major issues
in IP business
operations

- Process of managing IP is time-intensive and costly
- Uncertainty in the data and distrust of the competition
- Multiple and incomplete data sources

Opportunities:

- One version of “the truth” of IP assets
- Increase accuracy, efficiency, verifiability, transparency and public access

Blockchain use in IP ecosystems



- (A) IP Application
- (B) Issue/Certify IP Right
- (C) Store evidences of IP assets
- (D) IP Application providing proof of ownership
- (E) Request/Verify the IP Right Ownership
- (F) Request/Respond an IP Right usage
- (G) Sign and register the contract in the BC Register

Potential Applications in IP ecosystems

Horizontal Uses



Digital Identity



Trust data sharing



Timestamping



Proof of existence of intellectual assets



Provenance authentication

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Many others

Vertical Uses



IP Registers



Evidence of trademark use



IPR Transfer/Licensing



IP Ownership Management



IPR Enforcement



Priority doc exchange

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Many others

Key findings (1/2)

Blockchain is impacting every industry

Cultural transformation as well as technological transformation toward a programmable society

Hype seems over, but Blockchain is still at its early stage

Numerous blockchain initiatives at international level and in IP space

Key findings (2/2)

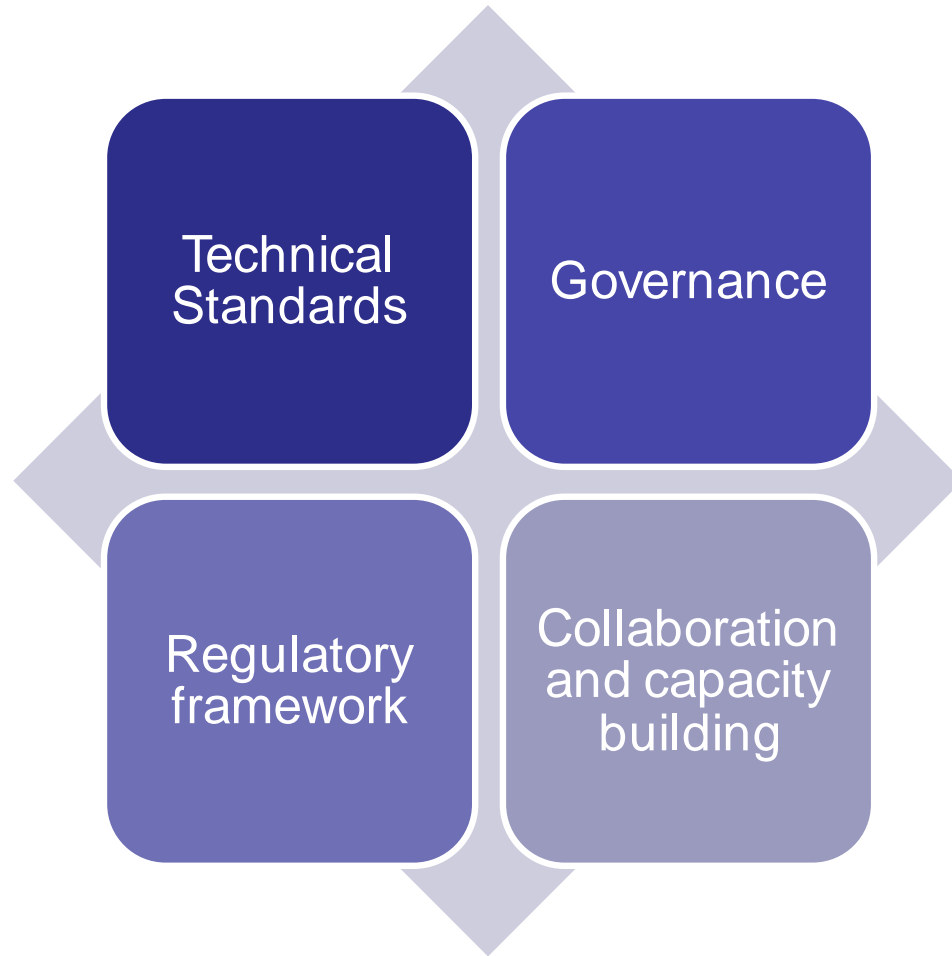
Disrupting and complementing IP business operations

Various opportunities and challenges identified

Common identification of IP assets and entities

Importance of Verifiers' role

Main Considerations



Annex IV: Mockup

Decentralized Identifiers (DID)

This mock-up has been built around the concept of using decentralized identifiers of a legal entity/ individual and demonstrates the suitability of blockchain-based technologies for the use of identifiers in the lifecycle of an IP asset.

Decentralized identifiers (DIDs), implemented via blockchain, enable a verifiable decentralized identity (credentials) to allow an object – defined by the owner of the identity – (person, company, abstract identity, etc.) to be identified.

Business Rationale

DID with legal validity provide multiple benefits:

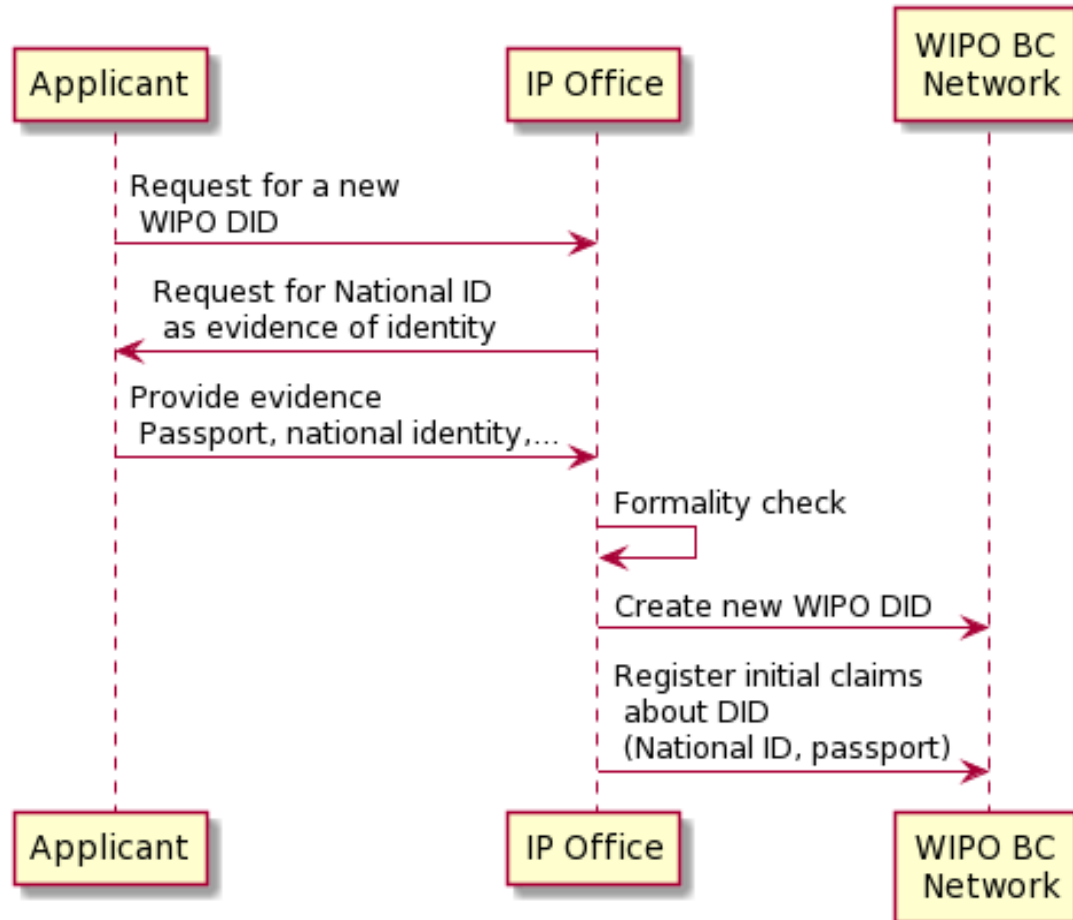
- Trust between entities
- Improvement of the efficiency of operations
- Reduction of complexity by providing more seamless and streamlined service experience, removing duplication, and making online transactions easier
- Standardized procedure of identification, agreed by network consensus (vs central authorities);
- Private entities control their identity and the information they share in each operation/transaction
- All the network Entities are able to see the claims made against other legal entities (non-GDPR protected).

7 Use Cases

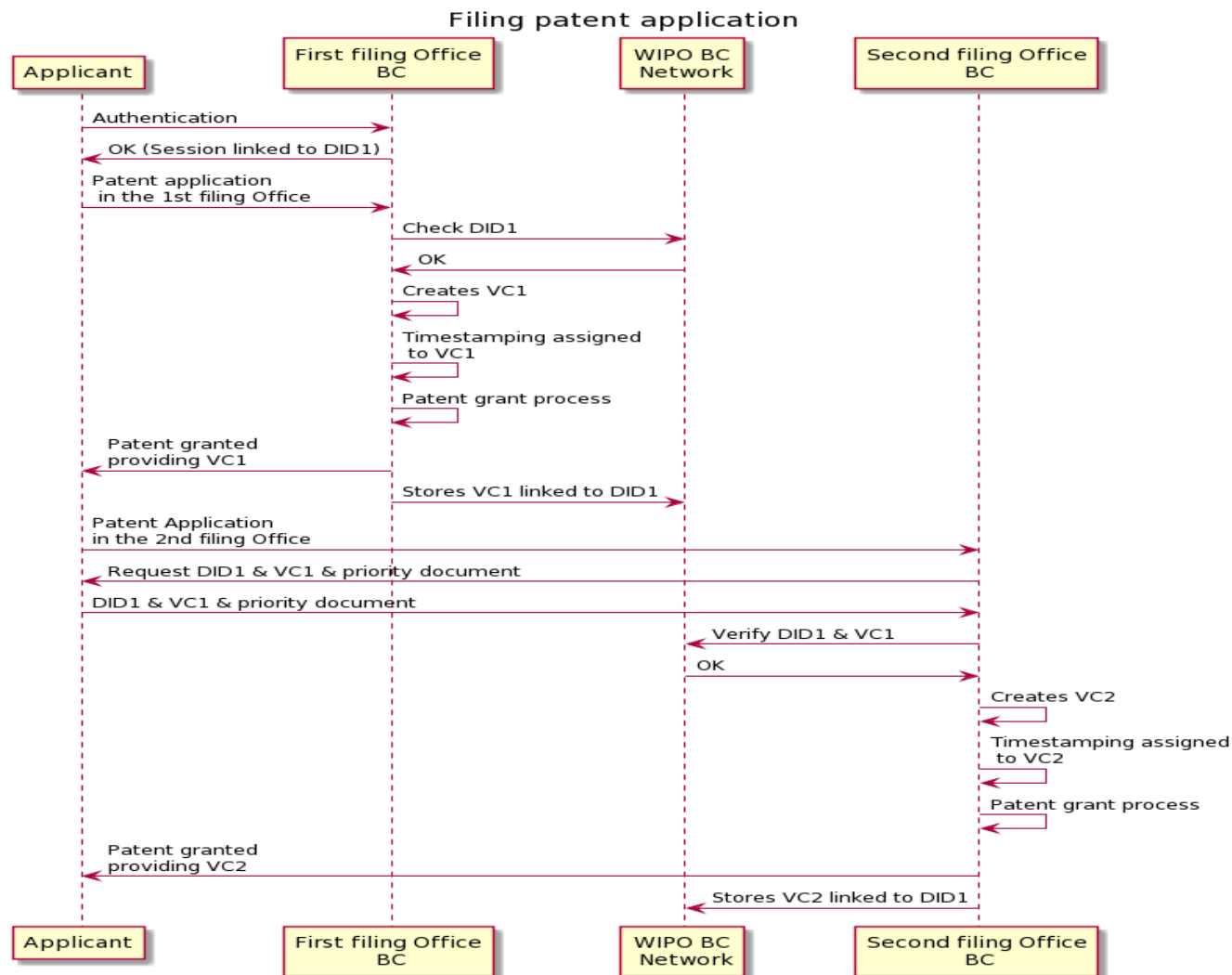
- ASSIGNMENT AND MANAGEMENT OF DID
 - Issue of a new DID to Applicant
 - IP Offices' Management of Existing WIPO DIDs
 - A User loses his/her digital identity
- PATENT LIFECYCLE
 - Timestamping on a pre-filing data lab notes
 - Filing Patent Application
 - Change of ownership of IP Right
 - IP owner licenses a patent

Use Case: Issue of a new DID

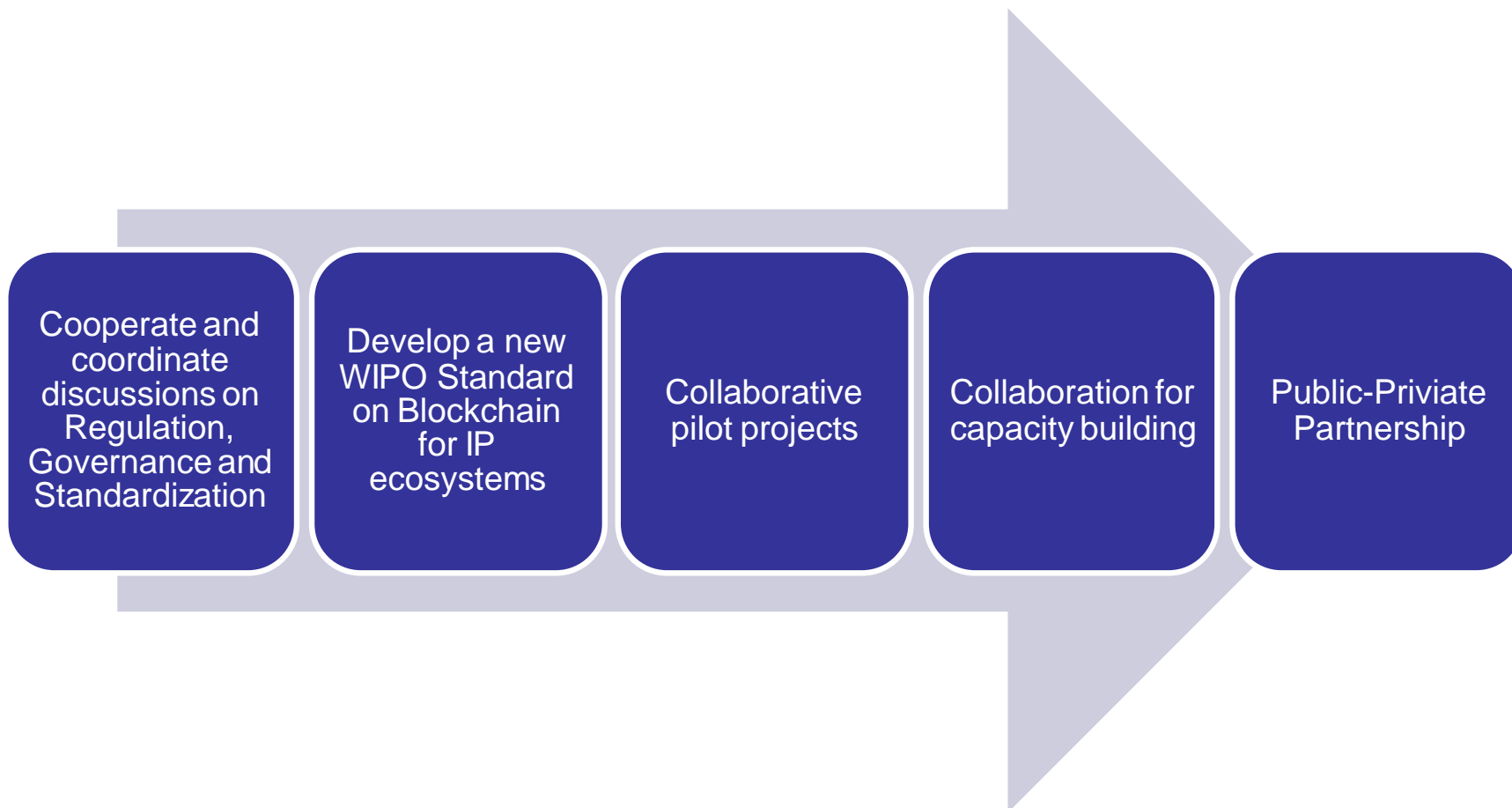
Assignment of a new DID to Applicant



Use Case: Patent Application Filing



Areas for future work



Questions

Thanks for your attention!

Q&A

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