



Blockchain Whitepaper Project

**Webinar: WIPO Standards Blockchain #1
June 25, 2020**

WIPO Blockchain Whitepaper Project Team

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Overview

- Project Brief: Objectives & Scope
- IP Ecosystem and IP Value Chain
- Preliminary Activities
 - Preliminary Research Results
 - Potential Use Cases
 - Survey Questionnaire
- Q & A

Project Brief

Project Objectives

- Prepare a whitepaper on the use of Blockchain in IP ecosystem:
 - explore the opportunities and challenges of using blockchain technology for IP
 - identify potential use cases and applications of blockchain in IP ecosystem
 - develop recommendations on interoperability and governance
 - support the CWS Blockchain Task Force

Whitepaper Scope

- Defining IP ecosystem and IP value chain
- Conducting survey and interviews
- Researching blockchain applications for IP available in the market
- Exploring the potential of blockchain in IP ecosystem
- Analyzing implications of Blockchain applications in IP space, including challenges and opportunities
- Identifying potential use cases of blockchain in IP value chain
- Proposing recommendation on interoperability, standardization and governance

Project Milestones

Milestones	Tentative Schedule
Desk Research	
Webinar 1: Project Presentation	25 th June 2020
Survey	July 2020
Interviews	July 2020
Webinar 2: Discovery Results	Beginning of August 2020
Whitepaper draft version	Middle of August 2020
Mock-up	End August 2020
Webinar 3: Final presentation	September 2020
Whitepaper final version	September 2020

IP Ecosystem & IP Value Chain

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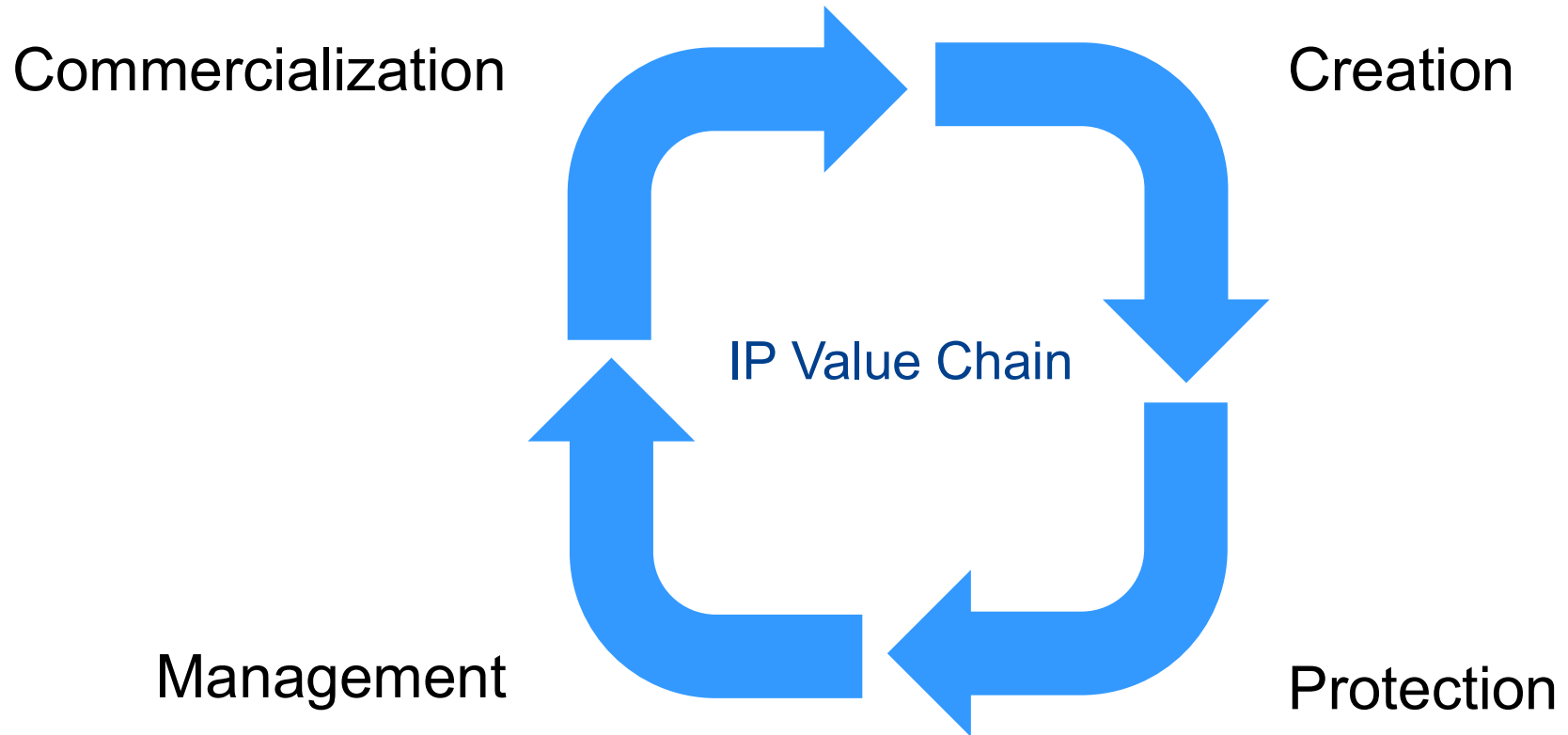
WIPO
WORLD
INTELLECTUAL PROPERTY
ORGANIZATION

IP Ecosystem & IP Value Chain

Draft Definitions

- **IP Ecosystem** is the network of all actors that participate in IP Value Chains through interactions in both competitive and collaborative relations with other actors using various resources to create, protect, manage and/or exploit IP.
- **IP Value Chain** is the set of activities that add value to actors and/or IP-related goods or services. The value chain can be represented as a lifecycle model with four phases, even IP often does not go through every phase or proceed through phases in a sequential manner. Rather, it's an idealized lifecycle model that captures all possible activities that IP could encounter.

4 Phases in IP Value Chain



Creation phase

Includes all steps from the initial idea with potential IP value to the existence of a work which is eligible for IP protection

Sub-phases & Key activities	Key actors	Key data & resources
<u>Ideation</u> : proof generation, confidentiality agreements, record keeping	Creators / Innovators R&D department IP / Legal advisor Strategy department	Strategic goals IP strategic goals R&D policy Records, lab notes
<u>Exploration</u> : Identification of elements eligible for IP protection, understand technology landscape, IP scoring, State-of-the-art analysis, preliminary valuation analysis	Creators / Innovators R&D department IP / Legal advisor	Intangible asset information from public and private data sources (such as IP data, non-IP literature, litigation data, corporate data, new, market reports) Goods and services Geographical scope
<u>Conception</u> : Technology watch, Freedom-to-Operate (FTO)	Creators / Innovators R&D department IP / Legal advisor	Intangible asset information Goods and services Geographical scope Market reports
<u>Development of IP protection strategy</u> : industrial property, copyright	Creators / Innovators R&D department Applicant Legal representative IP / Legal advisor	Intangible asset information Business information Classification

Protection phase

The Protection phase includes all the activities involved in obtaining legal protection for a work in the form of IP Rights, for example (does not apply to all IP rights) from the preparation of the application form by the applicant to request the granting of an IP right, until an official final decision is reached on the submitted application.

Sub-phases & Key activities	Key actors	Key data & resources
<u>IP rights prosecution</u> : drafting IP rights applications, filing with the IP Office, Granting the IP right, Oppositions	IP offices, Legal representatives, creators, applicants, IP advisor	IP right application data, IP data, non-IP literature, geographical scope, classification and good and services. IP Offices filing and maintenance systems
<u>IP maintenance</u> : Renewal of IP Rights, Changes on the IP Rights, fees payment	IP offices, Legal representatives, IP Right holders, IP advisor	Granted IP rights, geographical scope, terms and conditions of IP rights
<u>IP enforcement</u> : infringement and dispute resolutions	National and International law enforcement authorities – Anti-counterfeiting Judiciary – Courts (IP dispute resolution) Alternative Dispute Resolution (ADR), Legal representatives, IP advisor, IP right holders	Granted IP Rights, relevant technical information on the IP rights and the company. Communication channels between enforcement authorities and the IP right holders

Management phase (1 of 2)

The IP management phase includes all those management activities that, mainly the IP right holder takes, in order to develop and raise the value of the IP rights portfolio.

Sub-phases & Key activities	Key actors	Key data & resources
<u>IP audit</u> : On-line questionnaires, Follow-up face-to-face interviews, documentation analysis, SWOT analysis of IP assets	IP Auditor (usually external) IP rights holder R&D department IP / Legal advisor Production departments	Intangible asset information from internal corporate documentation Asset commercialization agreements
<u>Portfolio analysis</u> : Business strategy analysis, inventory of assets, asset categorization, strategy gap analysis, development of plan to close gaps	R&D department IP / Legal representatives Production departments IP advisor	Based on audit report, business strategy and IP strategy: Intangible asset information Business strategic goals IP strategic goals
<u>Lifecycle analysis</u> : analysis of status of each IP asset within IP value chain resulting in initial asset valuation and identification of risks, dependencies and key actions	R&D department IP / Legal representatives Production departments IP advisor	Intangible asset information from IP audit report

Management phase (2 of 2)

The IP management phase includes all those management activities that, mainly the IP right holder takes, in order to develop and raise the value of the IP rights portfolio.

Sub-phases & Key activities	Key actors	Key data & resources
<u>Competitive Technology Intelligence</u> : collection, analysis, and application of publicly available information on external activities in technology that could affect a company's business	Market research area IP / Legal representatives IP advisor	Intangible asset information Market trends
<u>IP landscape</u> : identify broader trends within a country, region or globally and determine pockets of IP for acquisition, FTO analysis, patent invalidity searches	Market research area IP / Legal representatives IP advisor	Intangible asset information Market trends

Commercialization phase

The IP commercialization phase includes all those directly involved in generating revenue from the IP rights portfolio

Sub-phases & Key activities	Key actors	Key data & resources
<p><u>Financing</u>: IP valuation, investment and marketing decisions, IP collateralization / securitization</p>	<p>Executive management Finance department Legal representatives IP right holder IP advisor</p>	<p>Market conditions and trends Intangible asset information Business strategy objectives IP strategy objectives Contract information Data IP audit report</p>
<p><u>Exploitation</u>: Licensing, Franchising, Joint Ventures, Spin-offs, Technology transfer, Assignment</p>	<p>IP right holder IP advisor Legal representatives Partner companies Franchisor / Franchisee Venturers Commercialization platforms Universities</p>	<p>Contract conditions NDAs Type of license Granted rights Payment conditions Warranties Infringement acts Termination conditions Material transfer agreements (MTAs)</p>

Preliminary Activities

Preliminary Research Activity

The research includes the main general content media, specific business websites, IP, and technology as well as private data bases.

The preliminary results are:

- 70 projects, initiatives, and research works about IP in the last four years.
- The identified initiatives cover a great amount of the IP value chain and are from all around the World.

Preliminary Research Results (1/2)

Most important insights (I):

- Many industries are using blockchain to protect their IP rights, the provenance of origin and to help with anti – counterfeiting procedures. (sportswear, luxury, IT software providers, pharmacy, ...)
- IP offices all over the world are studying blockchain technology and some have already tested the technology. (e.g., IP Australia, ...)
- Blockchain proofs are admitted as evidence in court. (e.g., China Internet Court)

Preliminary Research Results (2/2)

Most important insights (II):

- The most common use case is copyright management and protection; there are multiple Blockchain platforms offering this service for various sectors (music, photography, video, social media content, ...).
- Based on the results, blockchain benefits are perceived in all the IP Value Chain thanks to features like immutability, to ensure the authenticity of the product and transparency, making more accessible the IP Rights in both protecting and commercializing

Potential use cases



Timestamping



Digital Identity



Trust Data Sharing



Legal Smart Contracts



Evidence of creation / Pre-work registration



Patent approval process



Smart IPR and registries



Trademarks Certification



Digital IP identifier



Trade secret management



IPR protection and enforcement



IP Licensing



IP pay-per-use



Evidence of use



Supply chain tracking



Automatic IP transfer process



IPR management



Priority document exchange among IP offices



Traceability



Provenance authentication/source of origin: anti-counterfeiting

Horizontal use case

Digital Identity

Summary

Creating digital identities for IP ecosystem actors will enable interactions to happen faster when identification requiring legal certainty is needed.

Blockchain rational

A blockchain protection mechanism provides a tamper-proof and (byzantine) fault tolerant system of distributed identity, based on public/private cryptography which can be used to create a distributed identity system where each entity can self-managed its identity and credentials.

Relation with other use cases

This use case enables multiple vertical use cases, such as Digital IP Identifier, IPR protection and enforcement, and IPR Management.

Vertical use case

Trade secrets management

Summary

Blockchain can potentially assist at various stages of the life cycle of a trade secret, notably when it comes to the “reasonable measure of protection” and enforcement of a trade secret, i.e. being able to prove that the information has been kept secret in the event of misappropriation.

Blockchain rational

Blockchain serves as a trusted layer, with the immutable record of actions protected by cryptography. Blockchain may also be used when it comes to sharing information securely with third parties with the use of confidentiality and non-disclosure agreements, and evidencing their transfer.

Relation with other use cases

This use case facilitates the vertical case of timestamping.

Survey Questionnaire

- Main objectives:
 - Understanding of the use of blockchain in the IP ecosystem
 - Having a clear vision of the perception of the technology from the different IP Stakeholders
 - Gaining awareness of the technology and its usability
 - Acquiring a clear picture of which use cases are most relevant
 - Receiving information about how the technology is being use or is intended to be used within the IP ecosystem
 - Collecting the perception of the benefits and challenges
 - Contrasting all the information to identify the relevant use cases to be analyzed

Audience Questions

■ Thanks for your attention!