



The Impact of Blockchain in the IP World of IP

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Topics for discussion

- Blockchain features and trend
- Blockchain and IP ecosystem
- Blockchain opportunities and challenges in IP ecosystem
- Areas for future work
- WIPO's responses
- Blockchain pilot - Global Identifier
- WIPO Standards

Blockchain?

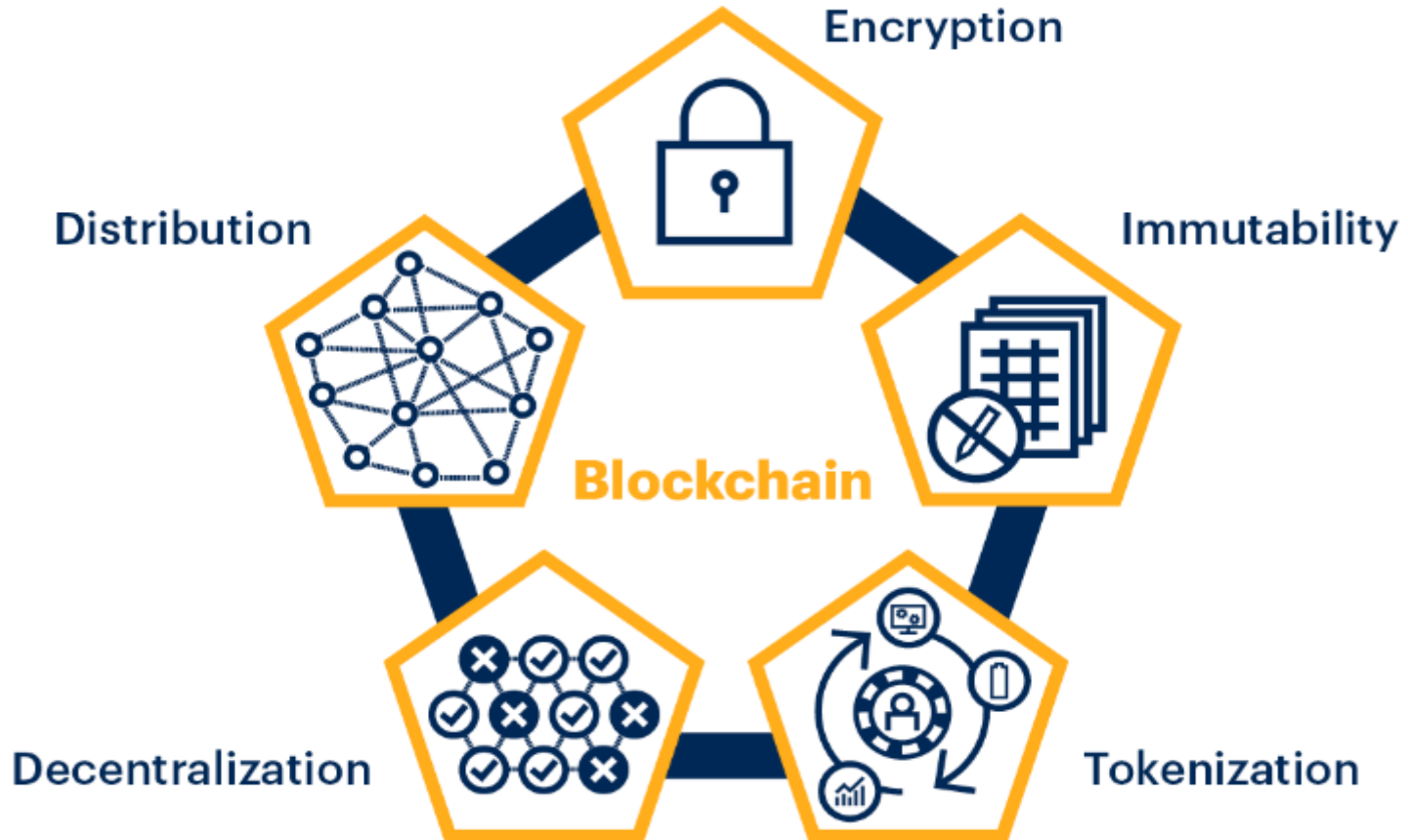
■ A paradigm shift

- people, businesses or computers to exchange value in digital environments without having an intermediary validating and protecting the transaction
- makes new markets possible and can redirect existing value flows by reducing the control that centralized systems have over data

■ Underpin Web3 and the Metaverse

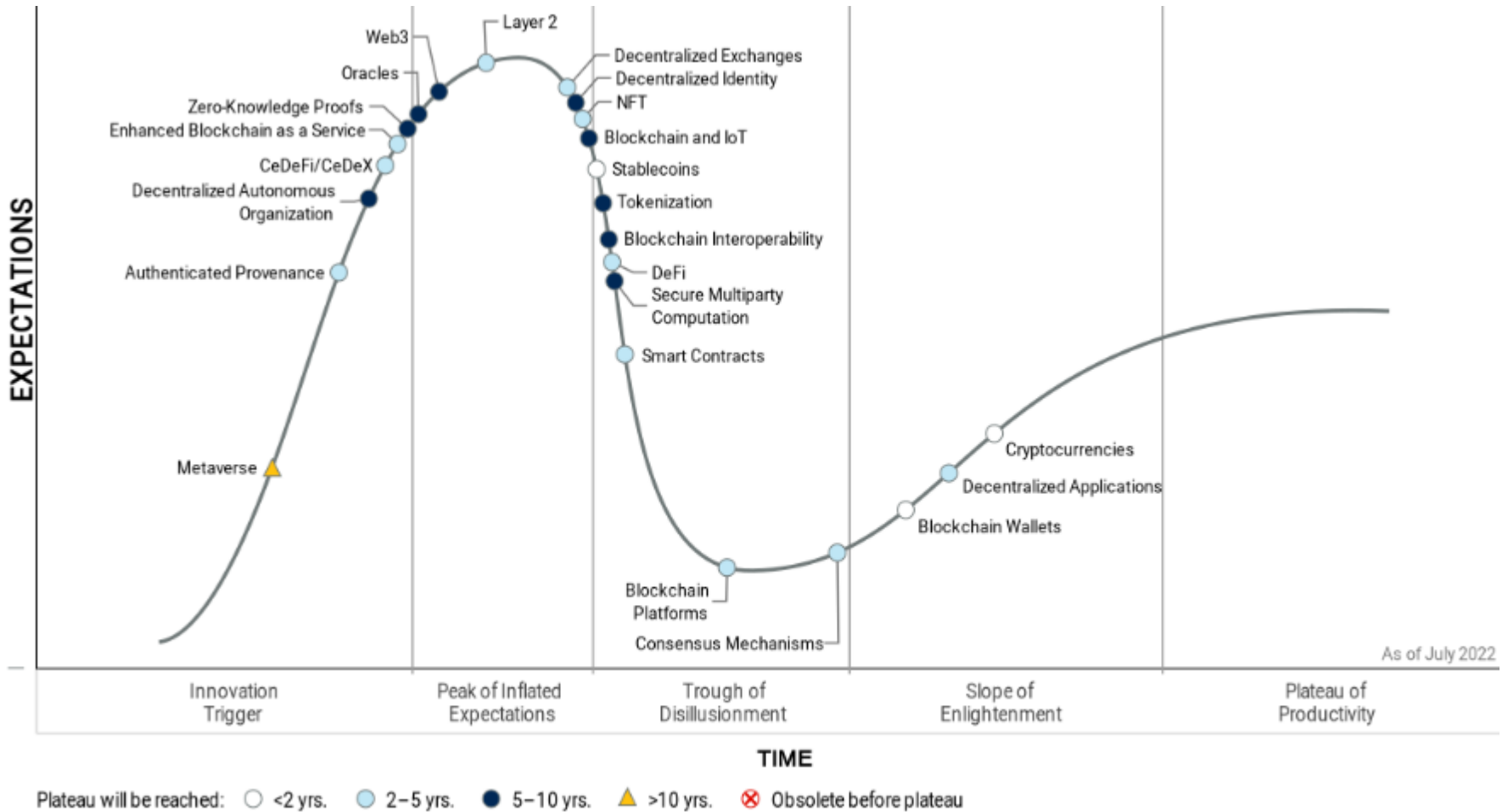
- Layer on the intelligent decision-making ability of AI and the sensory powers of the IoT to create whole new social and economic constructs in the peer-to-peer age of Web3, Metaverse and NFTs

5 Key Elements of Blockchain



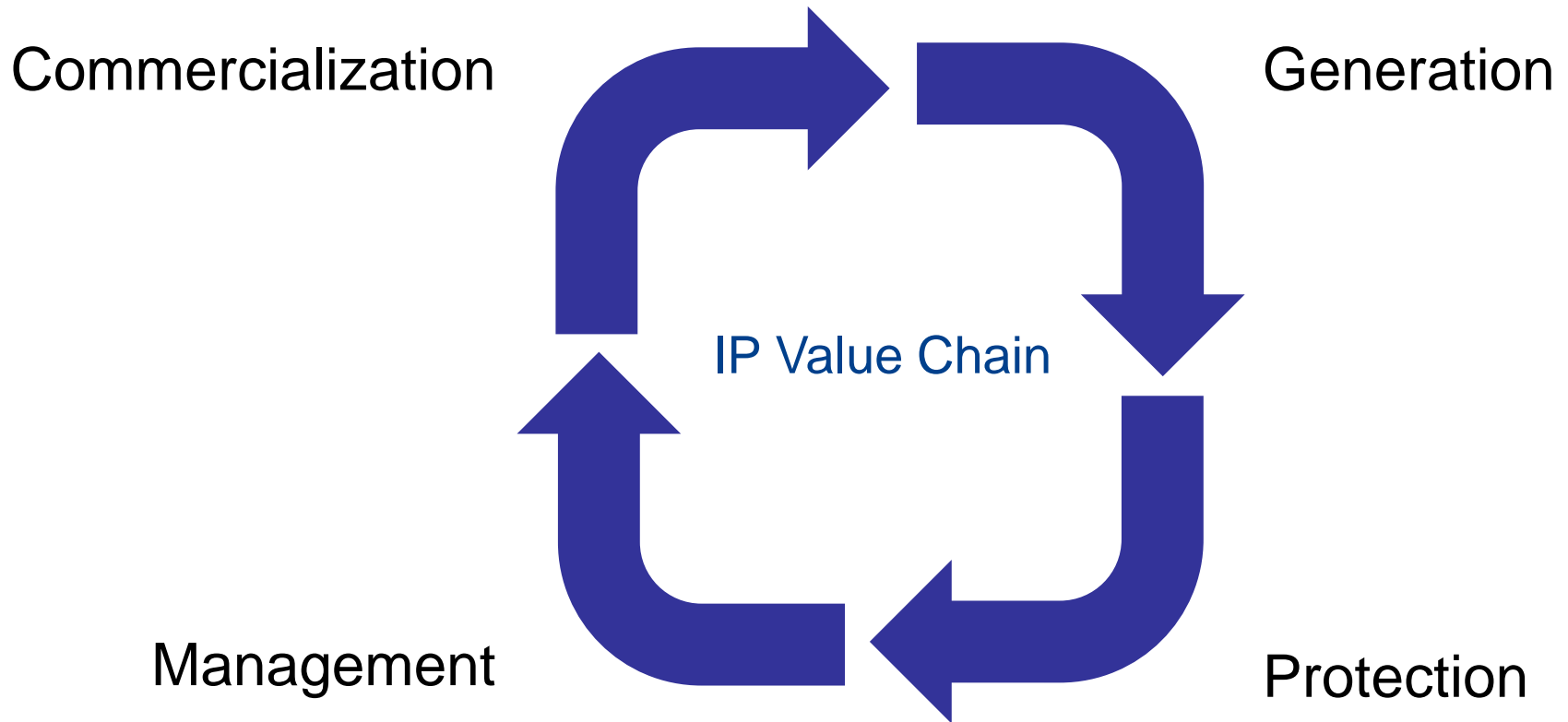
Source: Gartner.com

Hype Cycle for Blockchain and Web3

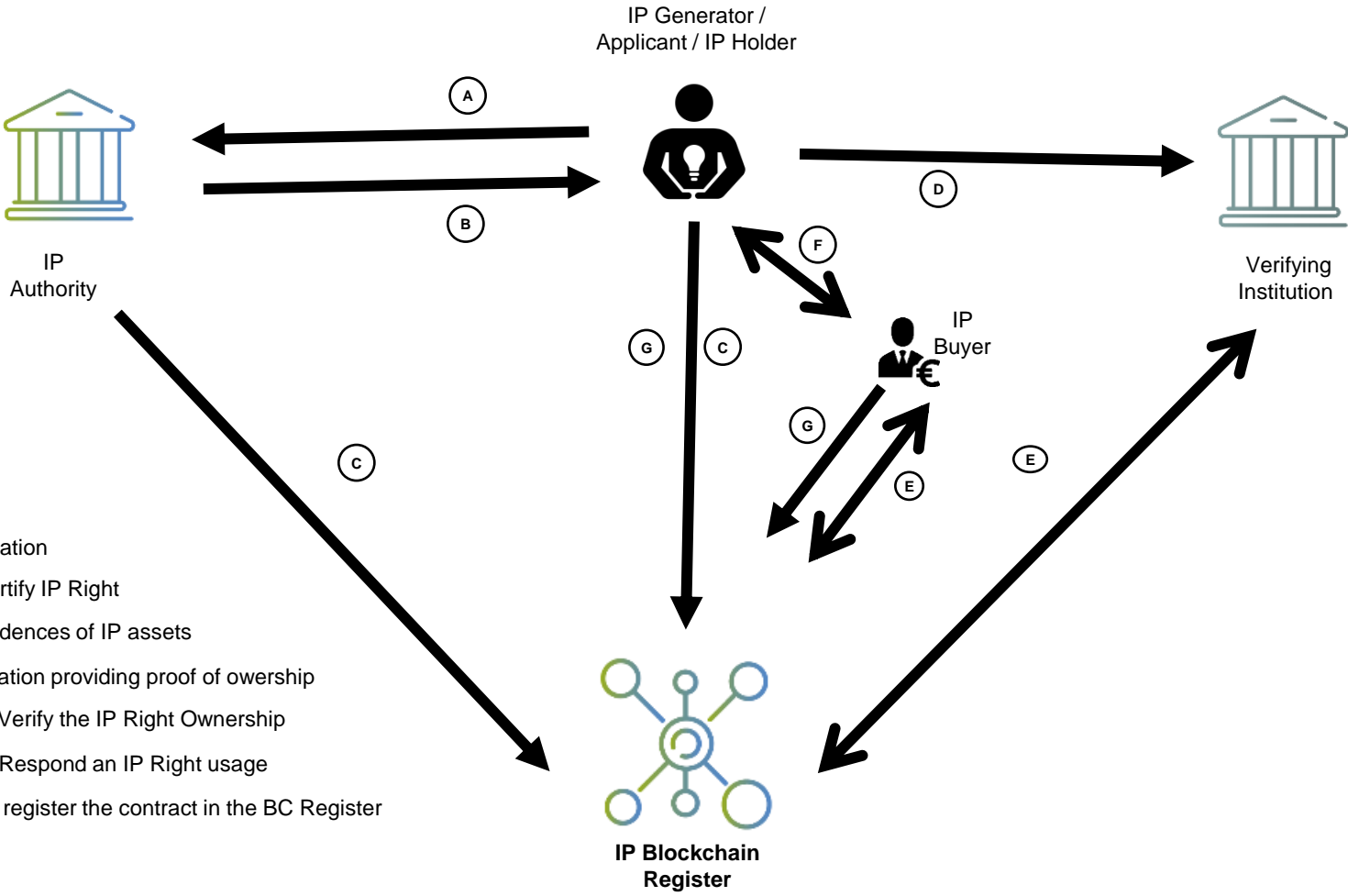


Source: Gartner (August 2022)

IP Ecosystems and IP Value Chain



Blockchain-powered IP ecosystem



- (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

Blockchain Rationale in IP ecosystem

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:

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

Blockchain Opportunities (1/2)

- Proof of ownership and chain of title
 - Timestamping
 - A register of unregistered IP rights such as unregistered design rights and copyright
- Facilitating ownership transfer/Licensing of IP rights through smart contracts
- Effective enforcement and anti-counterfeiting
- Effective commercialisation of digital IP assets in virtual world

Blockchain Opportunities (2/2)

- Connecting one source of data such as legal status and ownership
- Reducing costs: automate middle-man services
- Support innovative and creative industry in digital world
- Tokenization of IP assets such as NFTs
- Transparent & Secure interactions among actors in IP ecosystem
- Self-Sovereign Identity: Data privacy and Global Identifier

Potential Use-Cases 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

Challenges facing IP ecosystem (1/2)

- Still early stage technology and uncertainty of its evolution
- Interconnection and Distribution among Actors
- Global data transactions
- Different digitalization phases of actors
- Interoperability among various Blockchain platforms and between on-chain and off-chain
- Immutability and data quality
- Digital Identity of Actors to be verifiable globally

Challenges facing IP ecosystem (2/2)

- Decentralization technology for centralized authorities
- New Governance: Decentralized & Distributed
 - Reshape the role of Actors: IP offices, legal representatives, etc.
- Data privacy
- Regulation and Acceptance
 - governing laws and jurisdictions,
 - enforceability of smart rights,
 - data privacy concerns,
 - reliable rules and definitions for smart contracts

Areas for future work



WIPO's Responses

- WIPO Blockchain Task Force created in 2018
 - Develop a new WIPO Standard supporting the potential application of blockchain technology within the IP ecosystem
- [WIPO Workshop on Blockchain](#) in 2019
- WIPO [Whitepaper on the Blockchain technologies and IP ecosystems](#) in 2022
- Cooperative Blockchain pilot on Global Identifier with IP authorities in 2023
- [WIPO Conversation on IP and Frontier Technologies](#)

Blockchain pilot: Global Identifier (GID)

- Blockchain pilot with several IP authorities
- Identify parties (natural persons and legal entities) consistently, accurately and securely across IP systems and countries
- More effective and seamless service experience, removing duplication, and making online transactions easier in IP ecosystem
- Self-sovereign:
 - data remains in the control of its owners or holders
 - disclosing only what is needed in any given situation

WIPO Standards?

- 55 Standards related to patents, trademarks, industrial designs, geographical indications and copyright
 - Standards are developed by subject matter experts from various Task Forces of the Committee on WIPO Standards
- WIPO Standards are to help stakeholders and users within IP ecosystems create, process and exploit IP information in a more efficient, harmonious, and timely fashion

Thank You!



<https://www.wipo.int/portal/en/index.html>

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