



B E R N S T E I N

Blockchain certificates for securing intellectual property assets

Munich, 26.04.2018

Public blockchains are the
universal **public registries** that
humanity has been waiting for

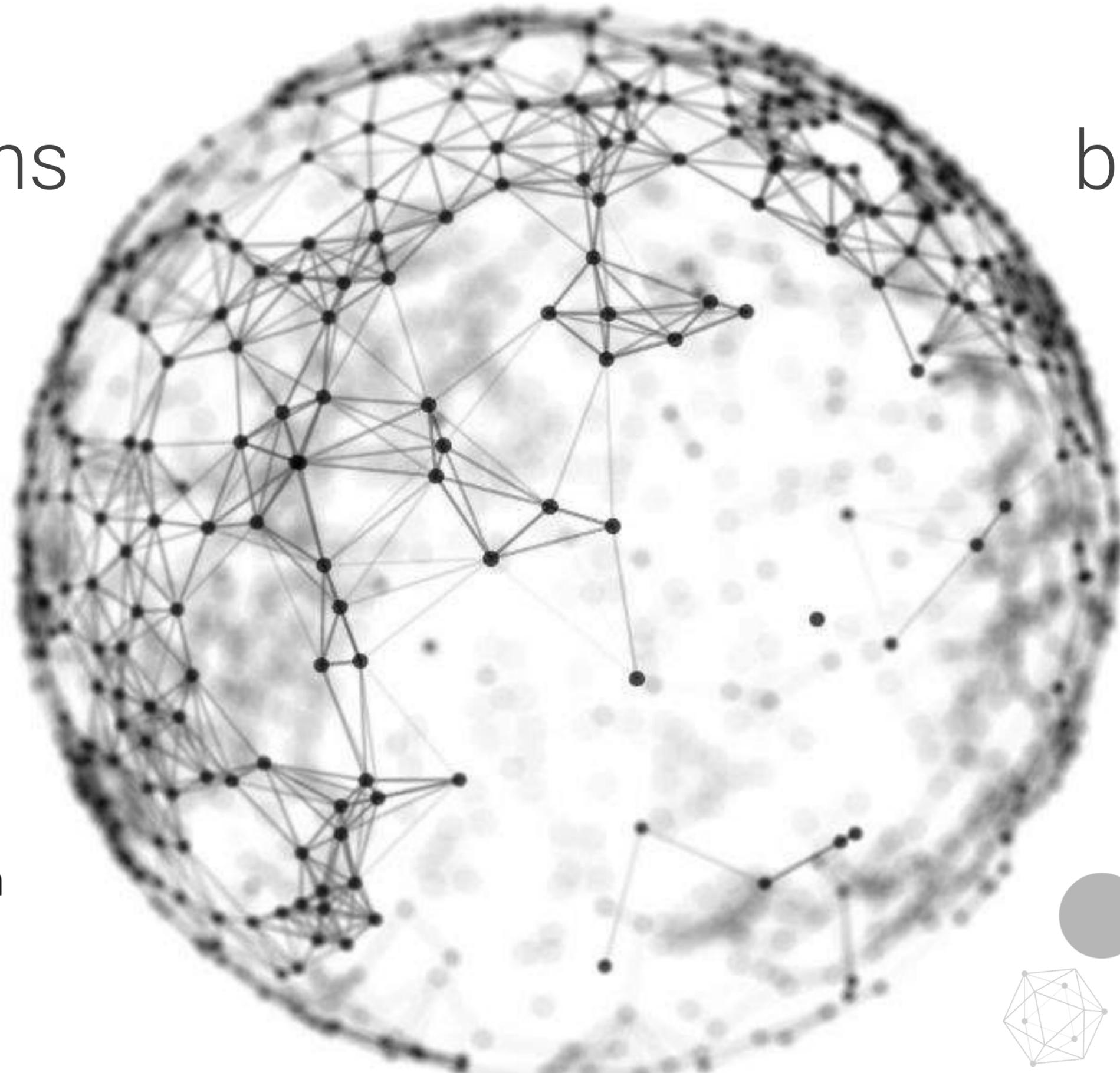
Public blockchains

Decentralized
Permissionless
Uncensorable
Resilient



Private blockchains

Distributed
Permissioned
Trust based





Public blockchains are a new common

{Common: a resource accessible to all members of a society, including natural materials such as air, water and a habitable earth. These resources are held in common, not owned privately.}

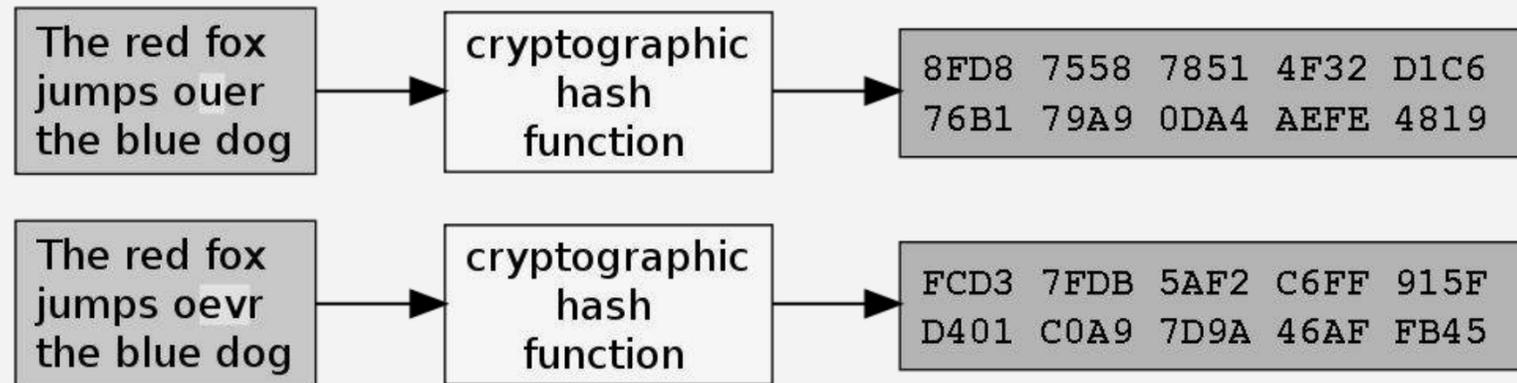


A public blockchain is a public registry
with very unique features

Transactions and timestamps

- The blockchain contains **transactions only** (no files, no documents, ...)
- Each transaction includes a **timestamp** (~10 min for Bitcoin)

How can we use the blockchain as public record if we are not able to store data on it?

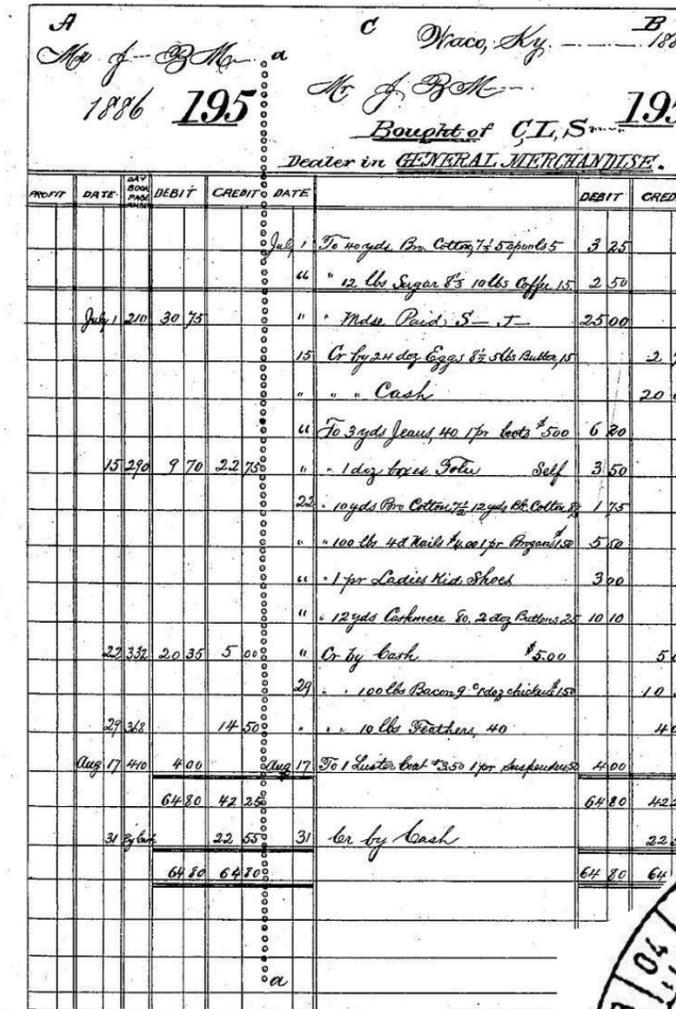


Any arbitrary set of data can be reduced to short string of bits, called a **hash**.

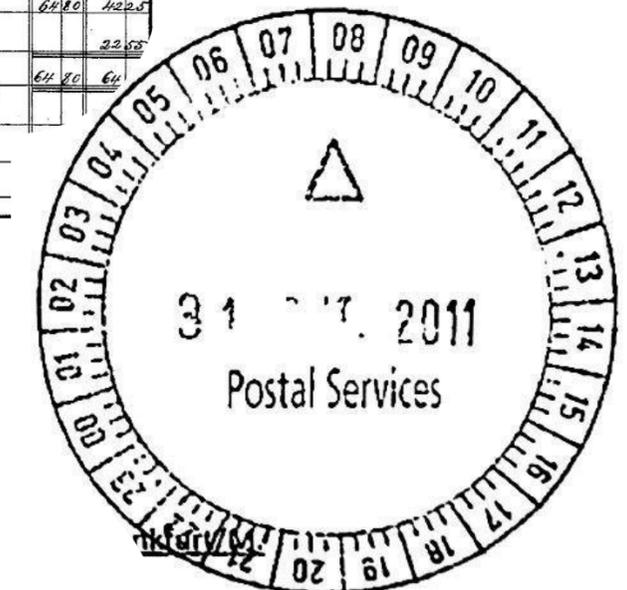


Bitcoin protocol allows a few options for adding short **textual data** to a transaction.

⇒ We have a public registry!



DATE	DEBIT	CREDIT
July 1		To 10 yds Blue Cotton 7 1/2 @ 25c 1875
" "		" 12 lbs Sugar 8's 10 lbs Coffee 15 2 50
July 1 20	30 75	" 7 Mds Paid 5 - 1 25 00
" "		15 Cr by 24 day Eggs 8 1/2 @ 15c 15 3 75
" "		" " Cash 20 00
" "		" To 3 yds Jeans 40 1/2 for boots 5 00 6 80
15 290	9 70	2 2 75
" "		" 1 doz. Apron. For Self 3 50
" "		22 10 yds Blue Cotton 7 1/2 @ 25c 1875 1 75
" "		" 100 lbs 4 1/2 Nails 1/2 @ 1/2 per 100 5 00 5 50
" "		" 1 for Ladies Kid. Shoes 3 00
" "		" 12 yds Corkmore 50 2 doz Buttons 25 10 10
22 330	20 35	5 00
" "		" Cr by Cash 5 00 5 00
27 360	14 50	
" "		27 100 lbs Bacon 9 1/2 doz chickens 10 50 1 0 50
Aug 17 400	4 00	2 2 75
" "		Aug 17 To 1 Luster Coal 3 50 1 per 100 4 00 4 00
" "		64 80 42 25
31 640	22 55	
" "		31 Cr by Cash 22 55 22 55
" "		64 80 64 80



Bernstein is a gateway to
blockchain-based
registries for innovators

Why the blockchain will revolutionize IP



How to make your company future-proof?
Together with partners, create a **blockchain-based alternative** for conventional IPR that is **quicker, more transparent, impossible to manipulate**, and works **without middlemen**.



We need to be aware that with blockchain technology the private sector will become an **ancillary record keeper**.

- Francis Gurry -
WIPO Director General



Bernstein approach to IP management

Multifaceted and complex:

- Securing trade secrets
- Claiming copyrights
- Proving prior use
- Make defensive disclosures
- Confidentiality agreements
- Technology licenses
- ...

Risks: product delays, wasting R&D money, legal costs, going out of business, litigations, ...

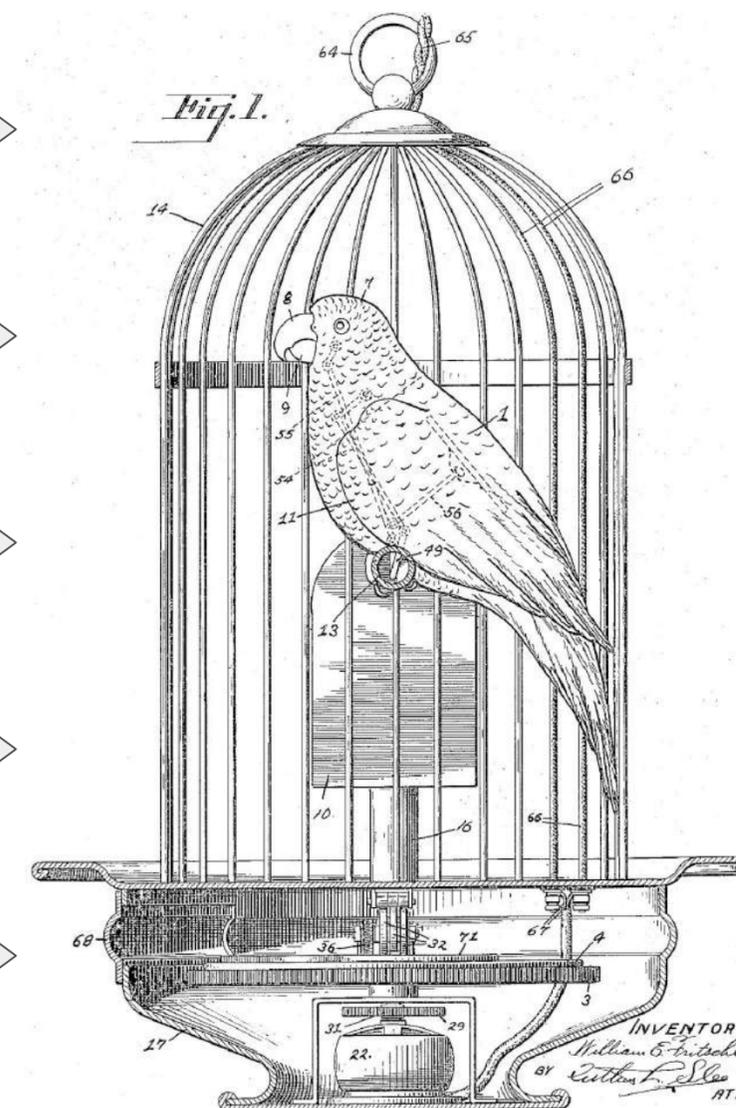
Patent trolls

Competitors

Employees

Hackers

Partners



The blockchain allows companies to create solid foundations to neutralize these risks.

At **low effort** and **low cost**.

Bernstein solutions for a future-proof IP portfolio

Bernstein is a web service that allows innovators to **register IP assets on the blockchain.**

Bernstein's unique protocol will create blockchain certificates that can prove:

existence, integrity and **ownership.**

Specific **targets**

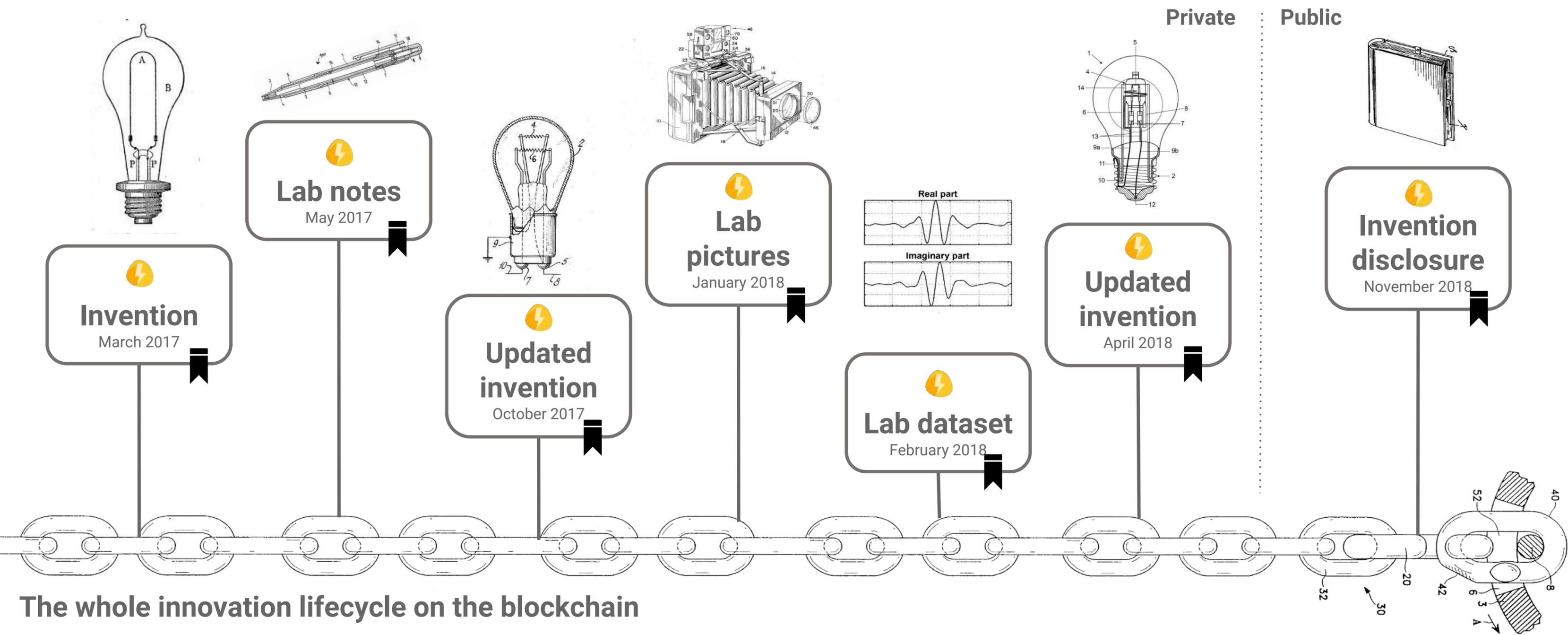
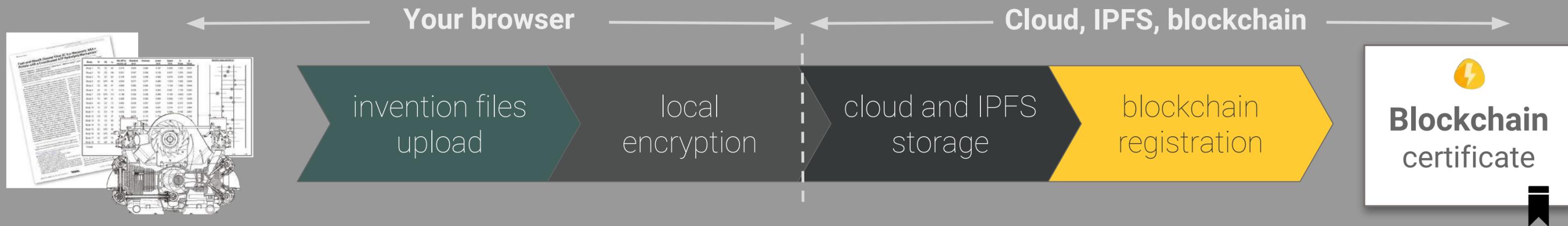
- Industrial and scientific IP
- Small and mid-size companies

Unique **advantages**

- Perfect confidentiality
- Unlimited encrypted data storage

Bernstein is a **gateway** to multiple certification infrastructures





The whole innovation lifecycle on the blockchain

Three **use cases** for blockchain certificates

Bernstein blockchain certificates

BERNSTEIN MARCO BARULLI ABOUT MARCO BARULLI

Secure Vault / Marco Barulli / Four blade bi-directional razor structure with flexible guard system

Summary History Settings

Cover

FOUR BLADE BI-DIRECTIONAL RAZOR STRUCTURE WITH FLEXIBLE GUARD SYSTEM

Description

Single-head bi-directional razor devices having an elongated bi-directional razor head with flexible edges are disclosed. The razor head may be constructed as a removable cartridge if desired, and h strips are positioned within the head in a substantially common working plane, with their sharpene working plane is defined in part by the flexible guards, which preferably are formed as elongate plia edges of the razor head. The first and second sets of razor blade strips may consist of one, two or preferably mounted for individual spring-loaded movement. The user gently presses the razor head then moves the head in one direction for contacting blades from the first set against the user's skin lifting the razor head from the skin, moves the head in the opposite direction so that blades from the reverse movement. The flexible guard system helps manipulate the skin to be shaved so that it is t edges of the blade strips to engage the skin with the appropriate amount of pressure for a closer s

Files

Name	Size	Last modified	Type
public-vs-private-pt1-1.pdf	158.65625 KB	2 months ago	applicati
The IP Sales Process.pdf	254.1953125 KB	2 months ago	applicati
170417 - Stellbrink opinion.pdf	89.6728515625 KB	2 months ago	applicati
Screenshot 2017-05-17 at 12.24.59.png	39.1015625 KB	2 months ago	image/p

BLOCKCHAIN CERTIFICATE

The file or collection of files referred hereunder existed and was presented in the date and time printed down below by the entity identified as Project Owner.

Aperture Science Handheld Portal Device

Project Owner Registration Date
Aperture Laboratories 23.06-.2016 18:05:38 UTC

Project Hash: 28299503e35d9d500acf21e3eb6e99952b2b6e7336c908712fcd6577dcd3fa0bc

TX: 02b082113e35d5386285094c2829e7e2963fa0b5369fb7f4b79c4c90877dcd3d Block:2664844



Project Owner public key (A)	Project data public key (B)	Bernstein public key (C)
db9bdd543e72fe3039a1f1c047 0e28da1848f640de68c2ee9132	046ce31db9bdd543e72fe3039a1f1c047 a669ff90e28da1848f640de68c2ee9132	046ce31db9bdd543e72fe3039a1f1c047 a669ff90e28da1848f640de68c2ee9132

Use case

Enhanced confidentiality agreements

The NDA dilemma:

- broad ⇒ unenforceable
- specific ⇒ complex, discloses trade secrets

Blockchain enhanced NDA:

- simple, strong, private



NONDISCLOSURE AGREEMENT

1. This Nondisclosure Agreement (the "Agreement") is entered into by and between

("Disclosing Party")

and

("Receiving Party")

for the purpose of preventing the unauthorized disclosure of Confidential Information as defined below. The parties agree to enter into a confidential relationship with respect to the disclosure of certain proprietary and confidential information ("Confidential Information").

2. For purposes of this Agreement, "Confidential Information" shall include all trade secrets and confidential information designated as such by the Disclosing Party prior or at the time any such trade secret or confidential information is transmitted to the Receiving Party. Notwithstanding the foregoing, any information transmitted by the Disclosing Party to the Receiving Party concerning:

shall constitute Confidential Information.

3. Receiving Party's obligations under this Agreement do not extend to information that is: (a) publicly known at the time of disclosure or subsequently becomes publicly known through no fault of the Receiving Party; (b) discovered or created by the Receiving Party before disclosure by Disclosing Party; (c) learned by the Receiving Party through legitimate means other than from the Disclosing Party or Disclosing Party's representatives; or (d) is disclosed by Receiving Party with Disclosing Party's prior written approval.

4. Receiving Party shall hold and maintain the Confidential Information in strictest confidence for the sole and exclusive

Blockchain-enhanced NDA

Between "Legal person or entity A" hereinafter referred to as "**Inventor**" and "Legal person or entity B" hereinafter referred to as "**Recipient**"

Whereas:

Inventor and Recipient intend to collaborate on a joint project and, in order to define the nature and content of the collaboration, the Inventor wishes to share technical and/or commercial information of a confidential nature with the Recipient that will ensure that the same remain confidential. Now, therefore, it is hereby agreed as follows:

- For the purposes of this Agreement "Confidential Information" shall mean such technical and/or commercial information as univocally identified by Annex A, a blockchain certificate issued via Bernstein Technologies GmbH, the specific certificate number being xxxx-yyyy-zzzz-zzzz.
- Additional information disclosed by the Inventor to the Recipient during the collaboration should be considered part of the Confidential Information only if:
 - the new information is identified by a new blockchain certificate logically linked to the one mentioned in 1. (see Annex 2 for technical details)
 - the new blockchain certificate is transmitted to the Recipient along with the new information.

Use case

Better defensive publishing

Defensive publishing is getting more popular, but it is not trivial neither cheap to execute in a robust and indisputable way.

In-house

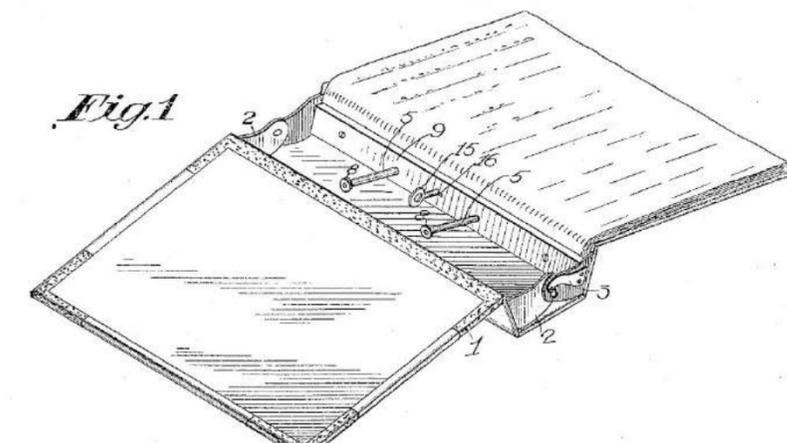
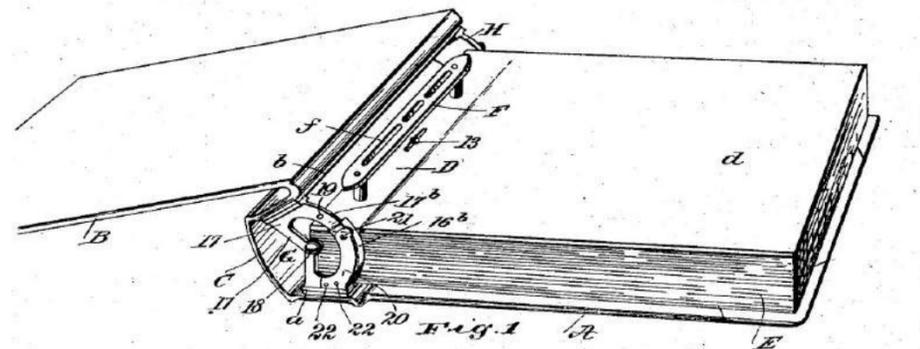
- publication date can be challenged
- public availability is hard to prove

Commercial services

- expensive
- limited visibility, for paid access

Blockchain registration + IPFS publishing

- robust and indisputable timestamp
- proven public availability
- optionally anonymous
- convenient and inexpensive
- always secures the largest perimeter
- not just for documents (datasets, visuals, ...)
- freely available to anyone



Use case

Securing 3D models

Copyright claims: the traditional way



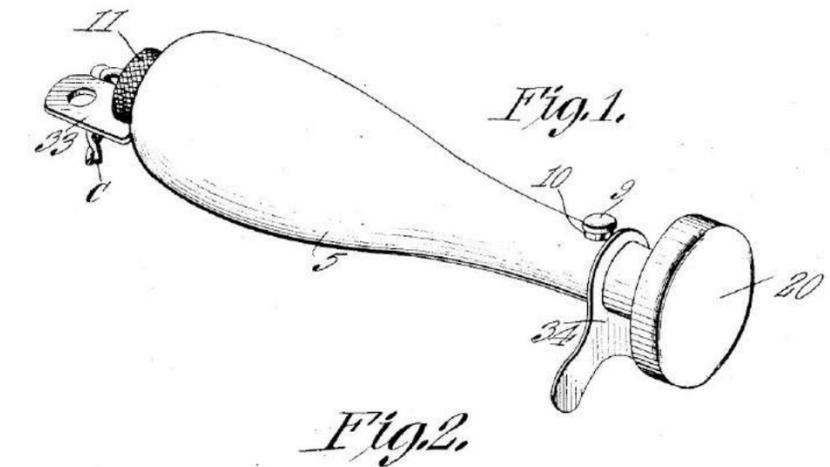
- Slow and inconvenient
- Expensive
- Reveal trade secrets
- Limited geographies

Copyright claims: the blockchain way



- No need to redact files
- Strong ownership claim
- Perfect confidentiality
- Convenient, quick, global.

Consistent enforcement and **statutory damages** may dissuade infringers (anyone with a 3D printer). But strong copyright claims are required.



IndustryWeek

3D Printing May Lead to Increased Copyright Litigation

Mar 13, 2017

Legal acceptance and Identity

Legislators are paving the road for blockchain records

  QUARTZ  

Sweden's blockchain-powered land registry is inching towards reality

By Joon Ian Wong | April 03, 2017

Delaware is Drafting Law That Will Recognize Blockchain Records

Garrett Keirns (@garrettkeirns) | Published on March 15, 2017 at

Delaware is inching closer to using blockchain as a means to create and manage corporate records.

Though the process is in the early stages, a group within the Delaware State Bar Association's Corporation Law Section has released a [proposed piece of legislation](#) that would establish a legal basis for using the technology for this purpose. Specifically



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SMART DUBAI
لحياة أسعد - HAPPY LIVING

DUBAI BLOCKCHAIN STRATEGY

The Dubai Blockchain Strategy, launched by His Highness Sheikh Hamdan, is the result of a collaboration between the Smart Dubai Office and the Dubai Future Foundation to continually explore and evaluate the latest technology innovations to create a more efficient, and

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NEWS

Technology

Government urged to use Bitcoin-style digital ledgers

🕒 19 January 2016 | Technology

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What is missing? Identity!

Blockchain certificates “only” creates a link between some data and the owner of a specific secret.

The blockchain lacks any identity feature.

Therefore a **traditional legal framework** that makes the best use of the certificates is **still needed**.

The futures of identity

1. self-sovereign
2. authorities embrace blockchain



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