

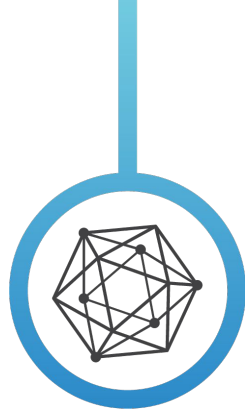
# A look at Hyperledger

How it works? What are the usecases?

**Marta Piekarska**, Director of Ecosystem, Hyperledger, *The Linux Foundation*



**HYPERLEDGER**  
BLOCKCHAIN TECHNOLOGIES FOR BUSINESS



Hyperledger is a collaborative and global open source software community, hosted by The Linux Foundation, **advancing blockchain technologies for business.**



# What is Open Source?



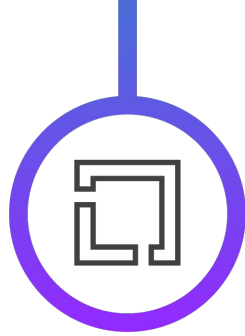
*Open source innovation has a methodology of its own and doesn't follow traditional business processes. One of its biggest differences is that open source development is collaborative, while traditional software and business practices are proprietary and closed. For many businesses, the needed change in philosophy when approaching open source use doesn't come easily or naturally.*





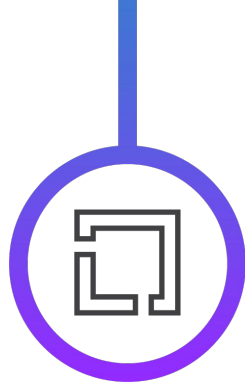
THE  
**LINUX**  
FOUNDATION





Dedicated to building sustainable ecosystems around open source projects, The Linux Foundation is working with the global technology community to solve the world's hardest problems through open source and **creating the largest shared technology investment in history.**





Some of the game-changing initiatives hosted by  
The Linux Foundation include:



**HYPERLEDGER**  
BLOCKCHAIN TECHNOLOGIES FOR BUSINESS

# Look to The Linux Foundation



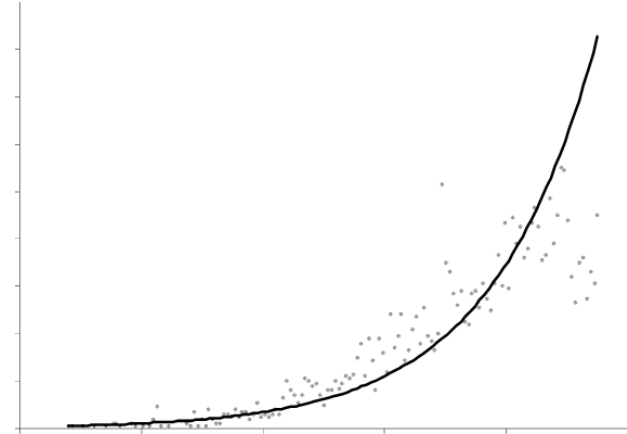
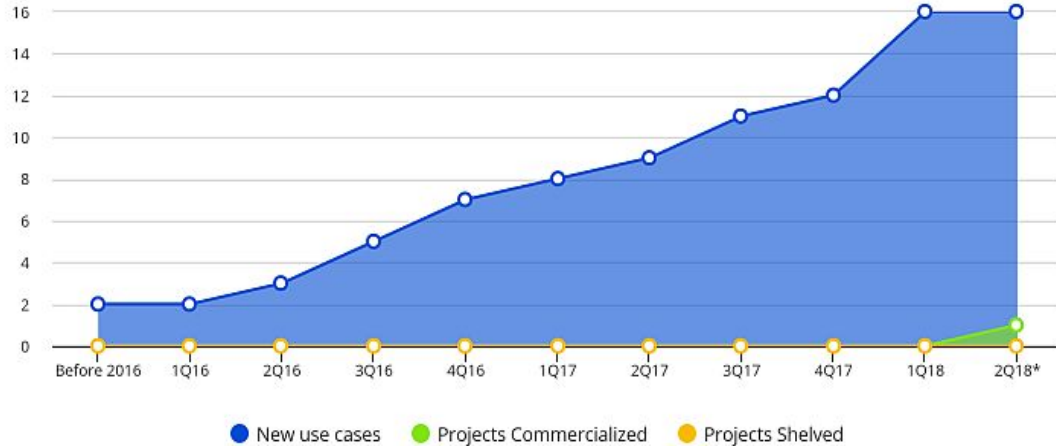
For the last 18 years, The Linux Foundation has provided unparalleled support for open source communities through financial and intellectual resources, governance structure, IT infrastructure, services, events, and training.

Dedicated to building sustainable ecosystems around open source projects, The Linux Foundation is working with the global technology community to solve the world's hardest problems through open source and **creating the largest shared technology investment in history.**

The Linux Foundation is the umbrella organization for **more than 150 open source projects** accelerating open technology development and commercial adoption. Some of the game-changing initiatives hosted by The Linux Foundation include:

# Boom for Blockchain

New blockchain projects have been launched at a steady frequency by major bond market participants in the past couple of years



Source: ESG Intelligence



# Hyperledger Momentum



3

Years since launch



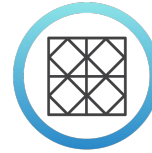
126K+

Commits



6

Tools



6

Frameworks



2

1.0+ Production Releases



270+

Members  
(50+ in China)



10

Active Community  
Working Groups &  
Special Interest Groups



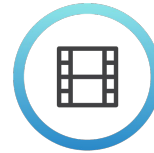
160+

Meetups  
Worldwide  
(66 countries)



44K+

Meetup  
Participants



2,000+

Media Clips Per Month





# Open Source Collaboration



## The Hyperledger technical community is 100% open.

It is never pay-to-play with Hyperledger's business blockchain technologies. You can participate as an individual, an employee of a company that is not a member, or as a corporate member. Our collaborative software development approach ensures the transparency and longevity required to bring blockchain forward to commercial adoption.

## Hyperledger is led by a diverse group of technical contributors.

Send your developers! Anyone is welcome to participate and contribute to Hyperledger technical codebases, regardless of corporate membership status. Governed by technical meritocracy, Hyperledger is vendor-neutral. Contributions undergo a rigorous peer review process, but are welcome from anyone.



# The Hyperledger Greenhouse



# Hyperledger Goals

Where open source teams build diverse approaches for business blockchain



## Create enterprise grade software

open source, distributed ledger frameworks & code bases to support business transactions



## Provide community-driven infrastructures

that are open, neutral and supported by technical and business governance



## Build technical communities

to develop blockchain and shared ledger POCs, use cases, field trials and deployments



## Educate the public

about the market opportunity for blockchain technology



## Promote our communities

taking a toolkit approach with many platforms and frameworks



# Community Working & Special Interest Groups

Technical and Sector Groups are open to the public



[Technical Steering Committee](#)



[Smart Contracts Working Group](#)



[Architecture Working Group](#)



[Healthcare Special Interest Group](#)



[Identity Working Group](#)



[Public Sector Special Interest Group](#)



[Performance and Scalability Working Group](#)



[Trade Finance Special Interest Group](#)



[Technical Working Group China](#)



[Social Impact Special Interest Group](#)



[Learning & Materials Development Working Group](#)



[Telecom Special Interest Group](#)



**HYPERLEDGER**  
BLOCKCHAIN TECHNOLOGIES FOR BUSINESS

View on demand video: [Blockchain Projects and Working Groups by Hyperledger](#)

# Hyperledger Premier Members

Hyperledger Premier Members Serving on the Governing Board. [Complete list of members >](#)



**HYPERLEDGER**  
BLOCKCHAIN TECHNOLOGIES FOR BUSINESS



## Global General Members





## Associate Members

(Non-Profits, Open Source Projects and Government Entities)





# What is happening now in the space?

- **Value templates** to construct deals that respect the artist as an entrepreneur and equal partner in any venture.
- **Funding mechanisms** whereby artists can raise venture capital.
- **Inclusive revenues** that use self-executing smart contracts to divide profits fairly and without delays according to each person's contribution to the creative process.
- **Transparent ledgers distributed on** the blockchain so that everyone can see how much revenue a film is generating and who is getting what percentage.

# What is happening now?

- **Usage data analytics** in the hands of artists at last, to attract the right merchandisers and distributors, plan promotions, and crowdfund resources for future creative collaborations with other artists.
- **Piracy protection** through public key infrastructure, which enables artists to exchange their assets securely with consumers over networks.
- **Dynamic pricing mechanisms** to experiment with promotions and auction-style schemes that could even tie pay-per-view and advertising rates to the online demand for a film.
- **Reputation systems** that cull data from a token address's transaction history and social media, to create a reputation score for that address.
- **Micrometering and micromonetizing functionality** to stream the revenues immediately to the artists and contributors, the way a film itself streams to online viewers



# Interstate Medical Licensing



## The Challenge

Interstate medical licensing is complex, and the provider directories and claims adjudication processes need increased trust and transparency.



## The Collaboration

Hyperledger members Hashed Health and the State of Illinois have implemented a pilot program to identify opportunities to improve the efficiency and accuracy of these processes in Illinois.



## The Technology

A blockchain-based registry, built using Hyperledger Fabric, streamlines the sharing of smart contracts and medical credential data to automate workflow associated with interstate and multistate licensure.



# Diamond Supply Chain



## The Challenge

The Kimberley Process Certification Scheme established in 2003 to prevent conflict diamonds is a long, paperwork-heavy process with a history of fraud from missing documents.



## The Collaboration

Hyperledger members SAP Ariba and IBM are collaborating with Everledger on a pilot to prevent blood diamonds from entering the supply chain.



## The Technology

The distributed ledger diamond track and trace system using Hyperledger Fabric v1.0 allows everyone in the industry to write to it, from miners, distributors and retailers, using the light pattern that is unique to every diamond to create an ID.



# Music and Media Rights



## The Challenge

Dot Blockchain Media (dotBC) is building a music content rights registry that will help musicians express their rights and wishes for commercializing their art in an interoperable file format.



## The Collaboration

Although not a member of Hyperledger, dotBC is able to leverage the open source Hyperledger Sawtooth platform for recording its content rights registry for the media industries.



## The Technology

Data is maintained across a distributed network that utilizes Hyperledger Sawtooth. dotBC's blockchain implementation is a foundation for music and media rights expression into the works themselves.



**HYPERLEDGER**  
BLOCKCHAIN TECHNOLOGIES FOR BUSINESS

# IPChain



## The Challenge

IPChain network is an infrastructure, which allows to construct services and platforms for effective interaction between authors, right-holders, natural persons and legal entities who create and use intellectual property, provide services on IP administration and legal protection.



**HYPERLEDGER**  
BLOCKCHAIN TECHNOLOGIES FOR BUSINESS



## The Collaboration

IPChain as a non-profit develops standards, technologies, and tools to enable effective collaboration between IP market participants in the digital domain. Promote high standards of IP management and help improve skill sets required for the transition to the digital economy, to ensure a confident and qualitative growth in the volume of creation and turnover of IP objects.



## The Technology

**n'RIS** – a service for proof of authorship, deposition, preventing violations and introducing various IP objects into economic turnover, digital patent and trademark registration service in Russian patent office.

**HyperGraph** – services and software for authors and collective rights management organizations.

**IPEX** – IP Exchange for all kinds of transactions with IP rights and objects, including cross border agreements.

**CO-FI** – first Russian crowd investing platform for financial support of creative and technological projects, including investment loans secured by intellectual property by professional investors or individuals.

**DI'S PUT** – platform for out-of-court disputes settlement involving intellectual property, which unites arbitrators, experts and parties to the dispute.

**FONMIX** – a service for legal background audio and video branding, sound design of various venues – from restaurants and hotels to shopping malls and offices.

# Collaboration Tools



## Account

Sign up for a Linux Foundation account



## Chat

Join the discussion on chat



## Mailing Lists

Participate on the Hyperledger Mailing Lists



## Github

Check out our code repositories



## Wiki

Get the latest development updates from the wiki



## Bug Reporting

Search for open bugs, or report a new one, in our bug database



### Webinars

Register for upcoming Hyperledger webinars or watch them on-demand.



### Videos

Explore how-to videos and community spotlights on Hyperledger topics.



### Training

Discover and enroll for training courses on Hyperledger technologies.



### Publications

Read popular white papers, position papers and case studies.



### Vendor Directory

Search for business blockchain products and services built by our members with Hyperledger code.



### Blockchain Showcase

Check out the cross-industry PoCs, pilots and production deployments in use today, built with Hyperledger frameworks and tools.



### Universities

Learn about resources for universities to help make an impact on Hyperledger.



### Jobs

Search for Hyperledger and business blockchain job listings.



### Industries

See how different industries are adopting Hyperledger projects.

<https://hyperledger.org/resources>



**HYPERLEDGER**  
BLOCKCHAIN TECHNOLOGIES FOR BUSINESS





**HYPERLEDGER**

BLOCKCHAIN TECHNOLOGIES FOR BUSINESS

Marta Piekarska  
marta@linuxfoundation.org