



Hyperledger

BRAZIL CHAPTER

4,500+

MEMBERS

110K WORLDWIDE

São Paulo
Rio de Janeiro
Brasília
Porto Alegre
Fortaleza
Florianópolis
Curitiba
Recife





Hyperledger
FOUNDATION



A part of the Linux Foundation

Through transparent open governance, Hyperledger Foundation enables developers, enterprises, and organizations to collaboratively build, share, and enhance blockchain frameworks and tools.

By embracing the open-source principles established by the Linux Foundation, Hyperledger Foundation promotes interoperability and standardization, paving the way for the widespread adoption of secure and scalable digital trust solutions across industries and sectors.



Our Supporting Members in Brazil



GoLedger



Cheesecake Labs



**PLUS ALL OUR REGIONAL
COUNTRY MEMBERS!!!**

A modern office interior with large windows, silhouettes of people, and a display board titled "THE BUZZ". The scene is lit with warm, golden light, suggesting a sunset or sunrise. The text "Open Source Development is Essential for Decentralized Technologies" is overlaid in white, bold, sans-serif font.

Open Source Development is Essential for Decentralized Technologies



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WHY HYPERLEDGER FOUNDATION?

We believe that...

- + Open source
- + Open development
- + Open governance

IS THE FUTURE OF DECENTRALIZED TECHNOLOGIES



What do we mean by...?

Open Source

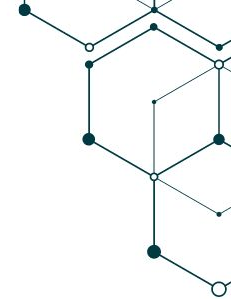
A public repository of code that anyone can use, evaluate, contribute to and build upon for any purpose

Open Development

There is a community actively building open source code in the open

Open Governance

Procedures and roles for the community, how decisions and priorities are made for the project roadmap is openly defined and managed



MEDIA & ENTERTAINMENT



PUBLIC SECTOR



CLIMATE ACTION



EDUCATION



IDENTITY



ENERGY



INSURANCE

SUPPLY CHAIN



TELECOM



HEALTHCARE



CBDCs



FINANCE



Diverse ecosystem of enterprise-grade technology & use-cases



Hyperledger
FOUNDATION



Since 2015 the Hyperledger community has been building and shaping the enterprise blockchain market, with frameworks, tools and libraries that support real world needs.

open.global.trusted

our journey



A Hyperledger timeline - meeting enterprise needs



2015
December 17
Hyperledger
Project
Launch

HYPERLEDGER CELLO

HYPERLEDGER INDY

HYPERLEDGER BURROW

HYPERLEDGER QUILT

2017
Cello Jan 15
Indy March 30
Burrow April 6
Quilt October 12

HYPERLEDGER GRID

HYPERLEDGER ARIES

HYPERLEDGER TRANSACT

HYPERLEDGER BESU

HYPERLEDGER AVALON

2019
Grid Jan 22
Aries May 14
Transact June 27
Besu September 11
Avalon October 3

HYPERLEDGER FOUNDATION

HYPERLEDGER FIREFLY

HYPERLEDGER BEVEL

2021
Firefly Sept 28
Bevel Dec 13



2023

HYPERLEDGER FABRIC

HYPERLEDGER SAWTOOTH

HYPERLEDGER EXPLORER

HYPERLEDGER IROHA

HYPERLEDGER COMPOSER

2016
Fabric March 31
Sawtooth April 14
Explorer August 11
Iroha October 13

2018
Caliper March 15
Ursa December 4

HYPERLEDGER CALIPER

HYPERLEDGER URSA

2020
Cactus May 13 > Cacti 2022



2022
Solang Aug 18
AnonCred Oct 20

HYPERLEDGER SOLANG

HYPERLEDGER ANONCREDS

2024
Web3j Jan 11

Hyperledger WEB3J

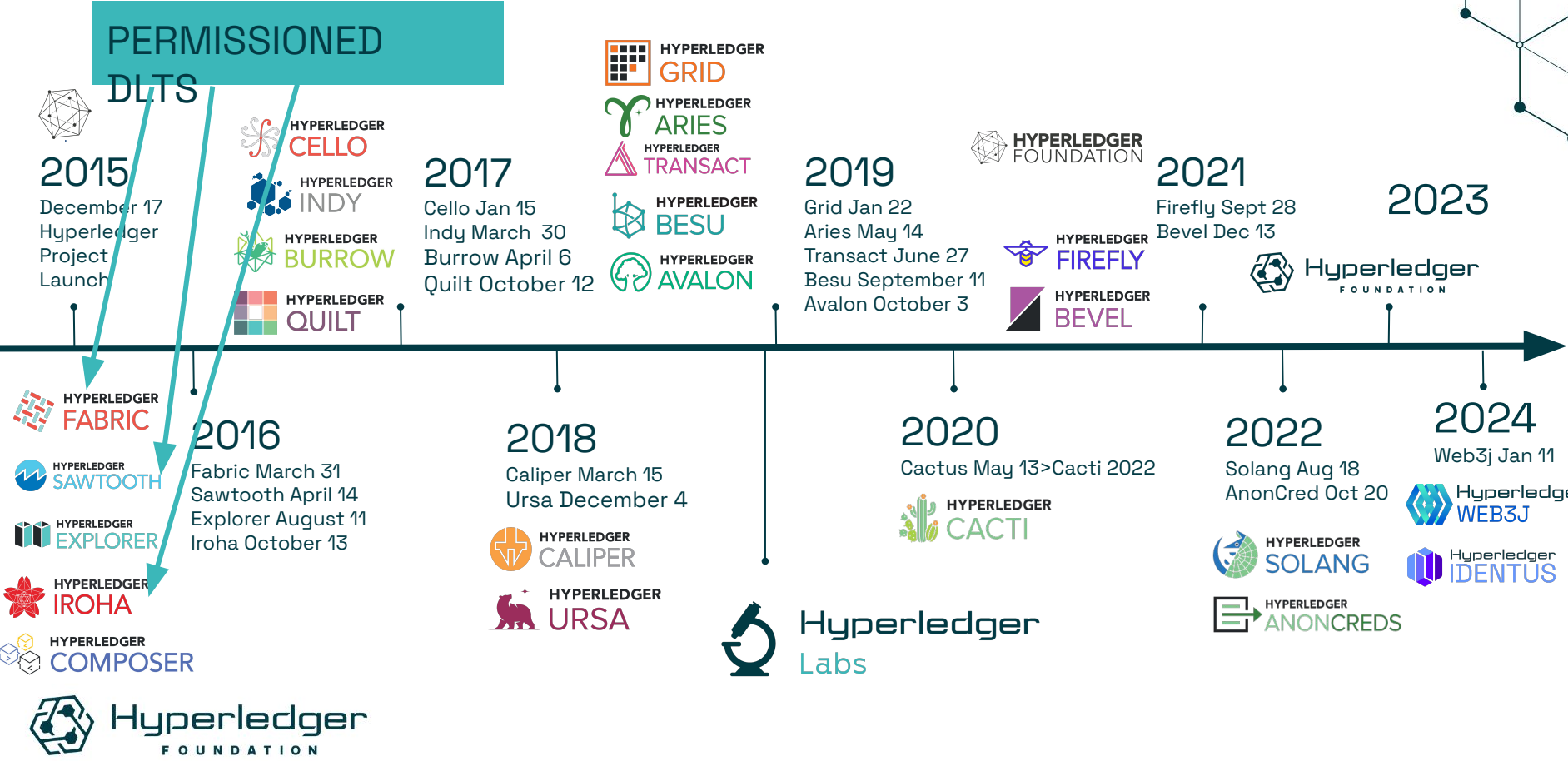
Hyperledger IDENTUS



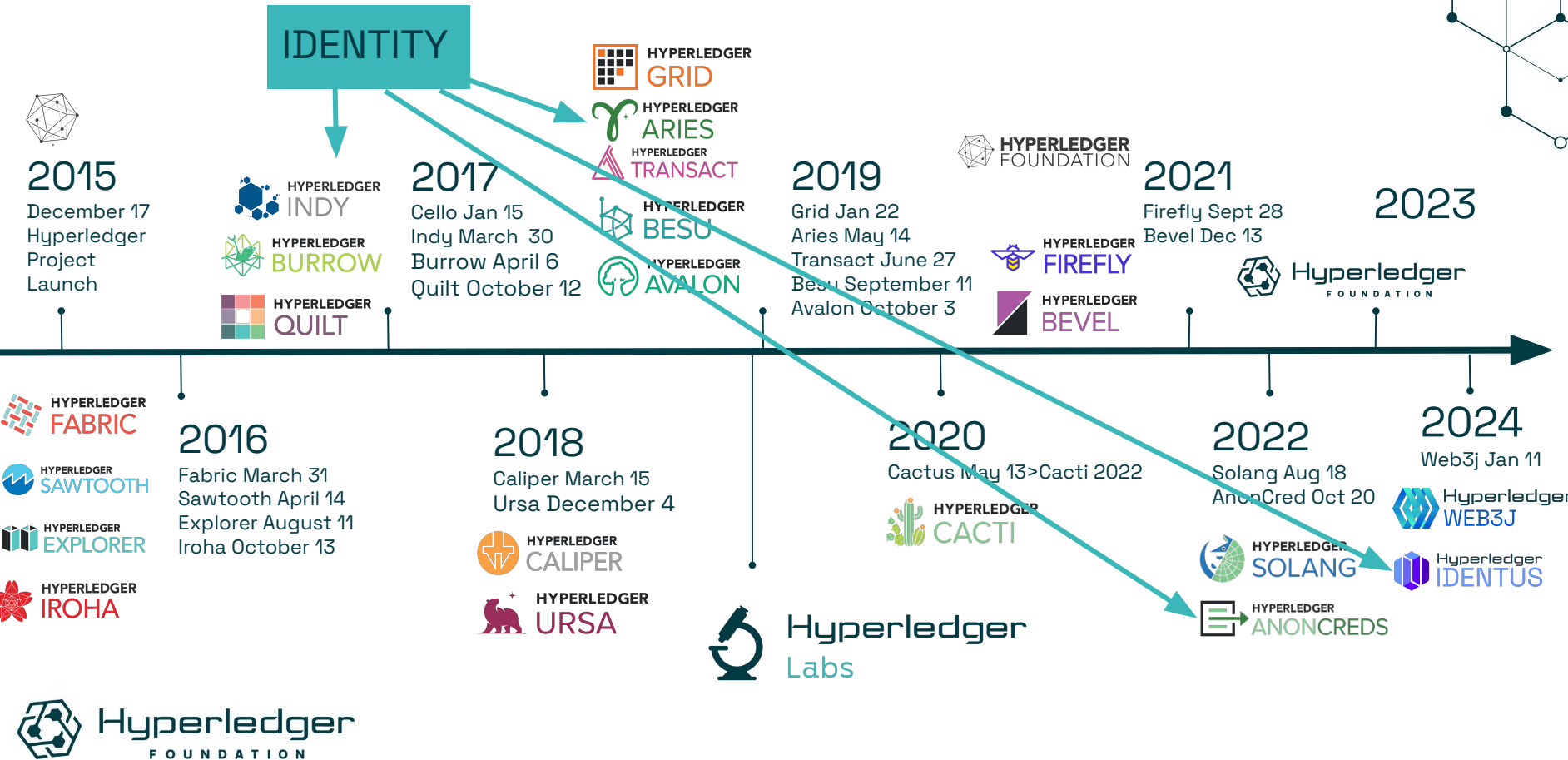
A Hyperledger timeline - meeting enterprise needs



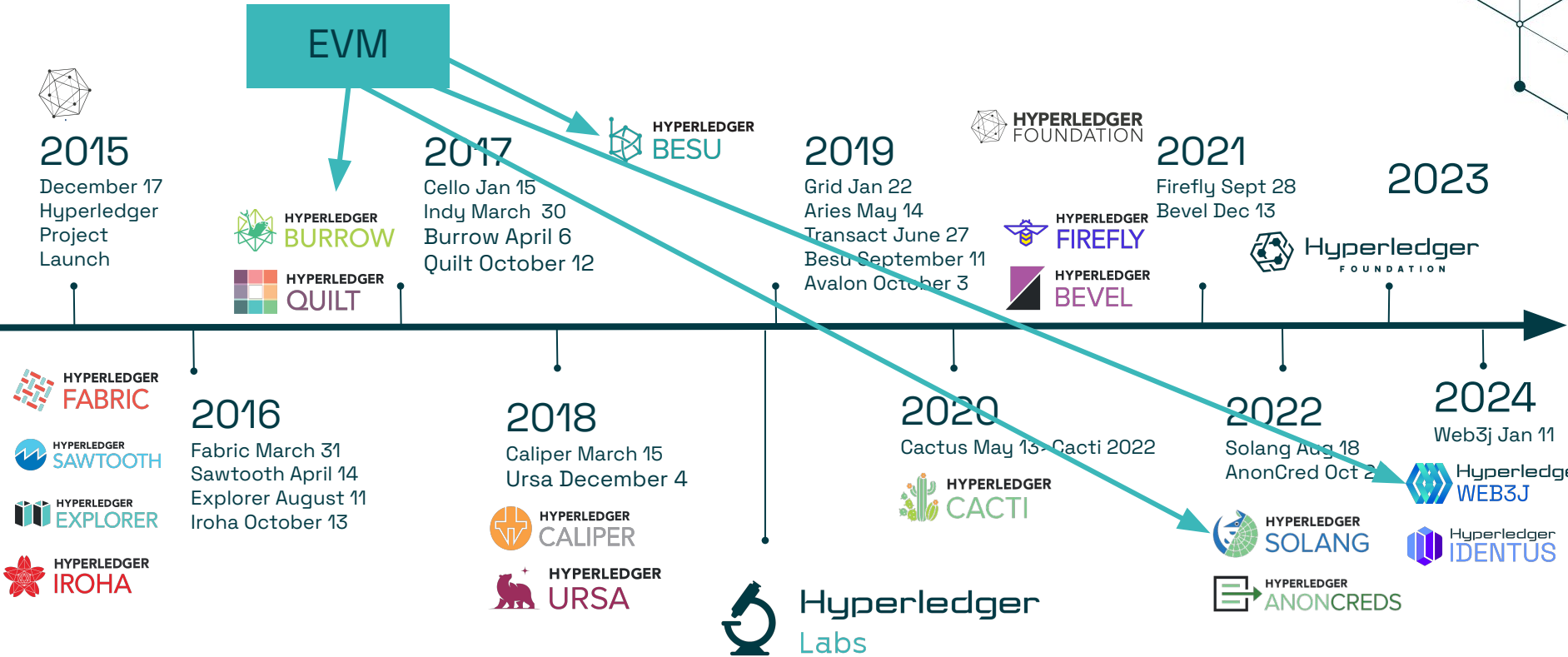
**PERMISSIONED
DLTS**



A Hyperledger timeline - where innovation happens

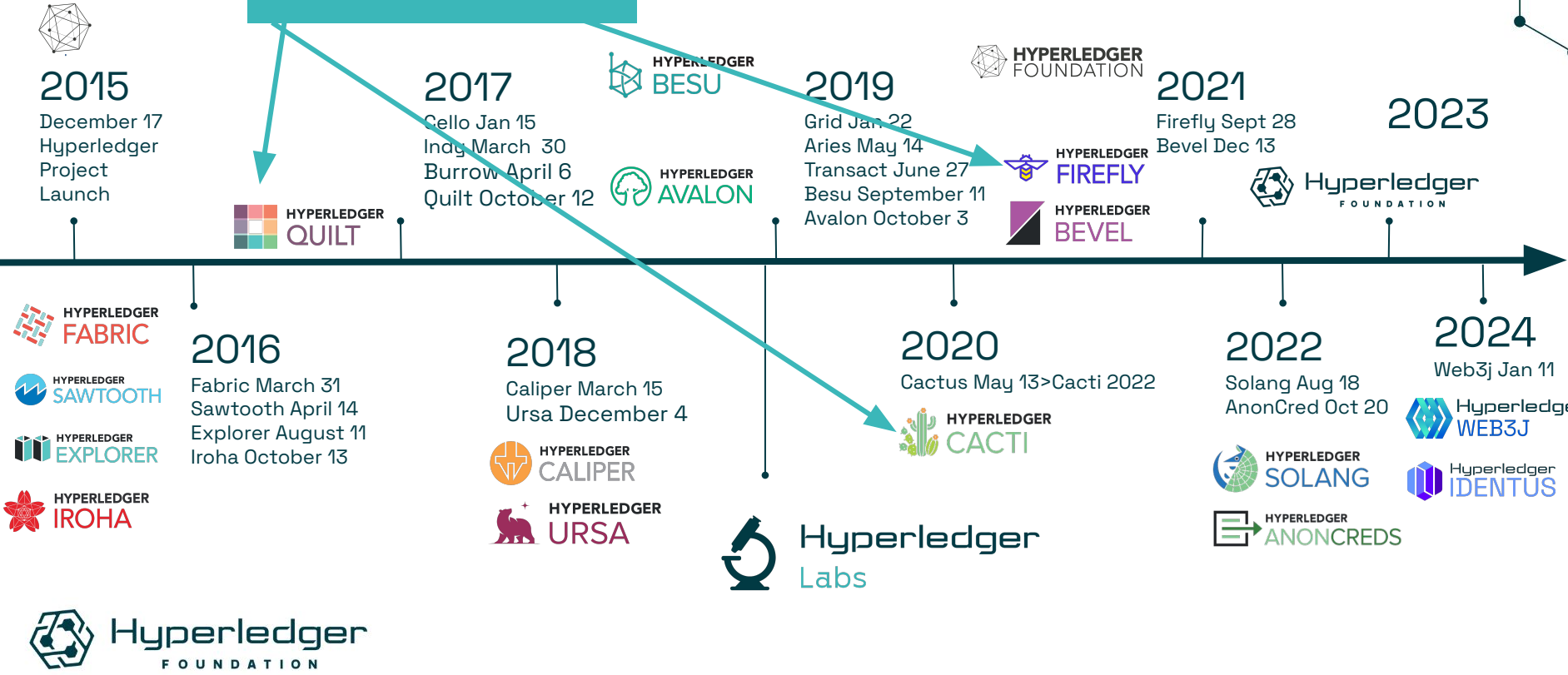


A Hyperledger timeline - where innovation happens

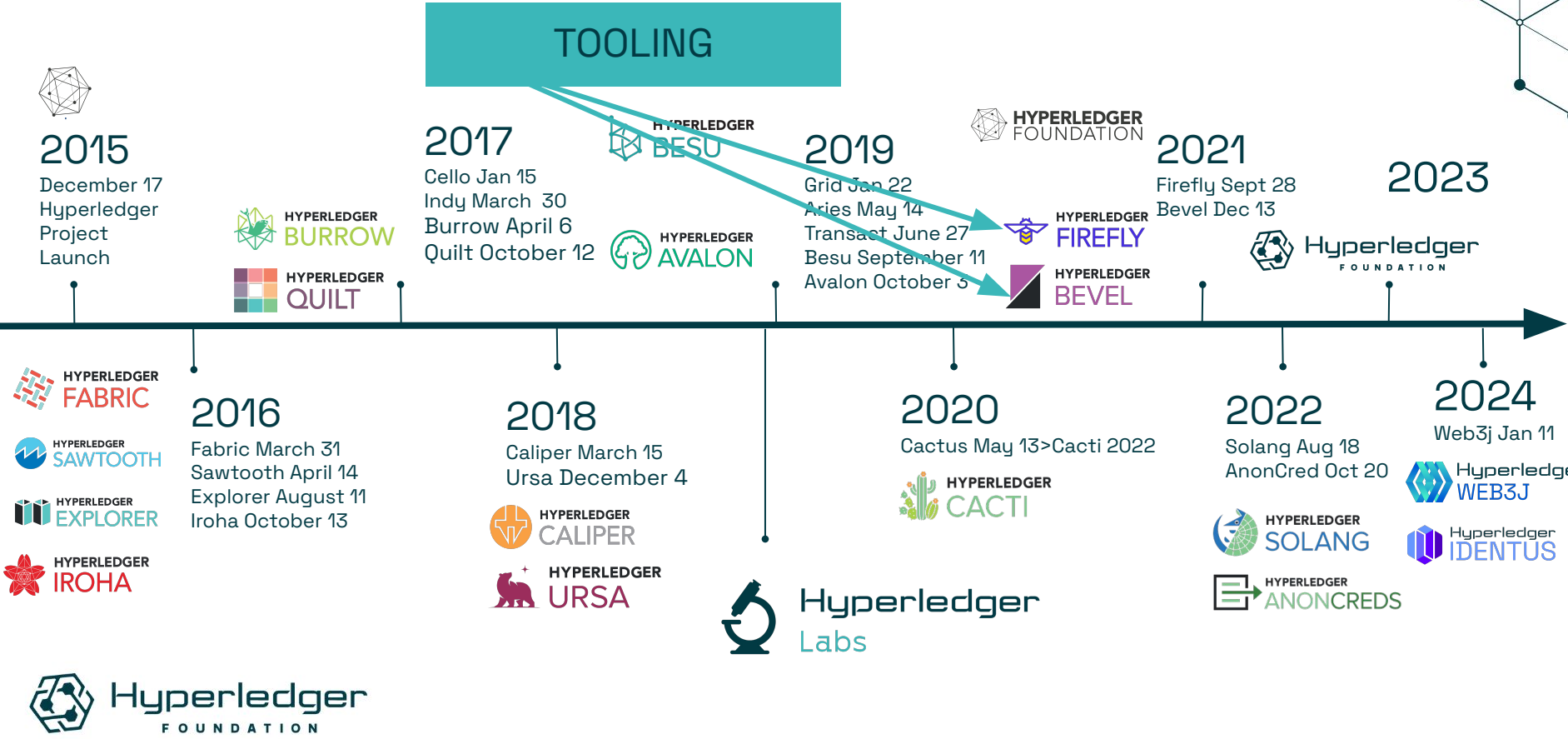


A Hyperledger timeline - where innovation happens

INTEROPERABILITY



A Hyperledger timeline - where innovation happens

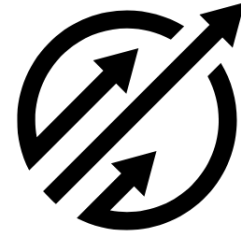




we look forward

The Impact of Decentralized Technologies

- Rapidly reshaping markets and disrupting traditional business models and systems
- Essential to emerging tokenized asset classes and networks
- Modernizing core infrastructure in finance, trade, government, healthcare, and more



Asset Tokenization
alone has a predicted
market cap of \$16
trillion by 2030



INTRODUCING

LF DECENTRALIZED TRUST

launching early September 2024

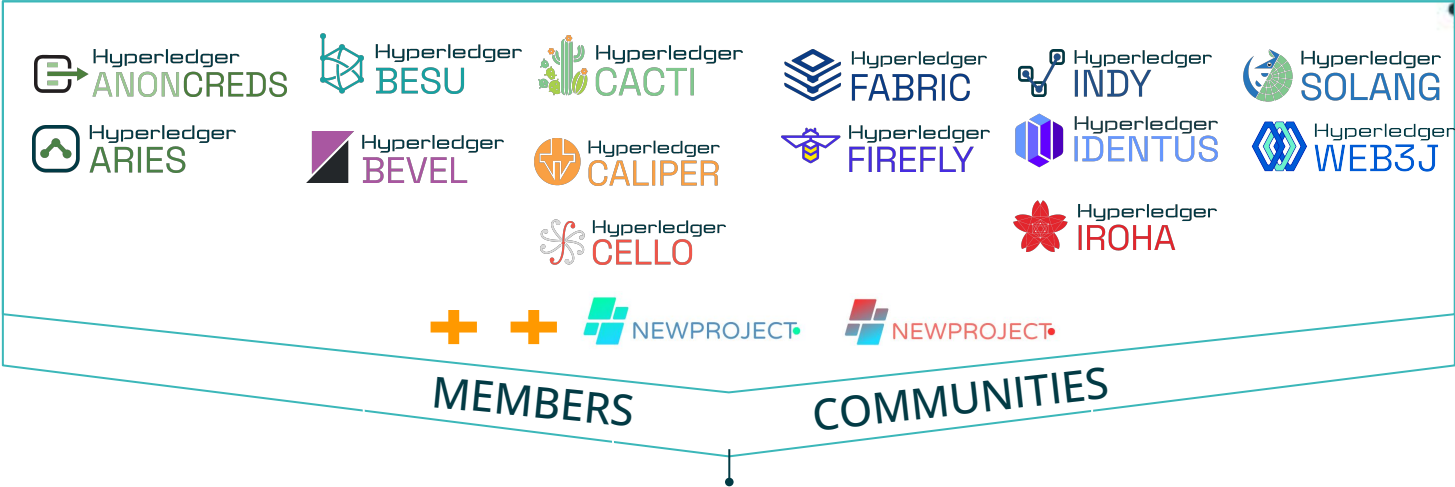
Decentralized technologies refer to systems and applications that distribute data, processing, and control across multiple points in a network rather than relying on a single central authority.

This approach can enhance security, privacy, and resilience against failures or attacks.

Examples:

- Blockchains
- Distributed Ledgers
- Smart Contracts
- Decentralized File Storage
- Decentralized Identity Systems
- Zero-knowledge proofs
- Multiparty Computation
- Federated Systems

A Market Timed expansion for decentralized technologies



2015 -2024



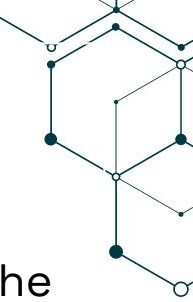
LF DECENTRALIZED TRUST

2024

September Launch



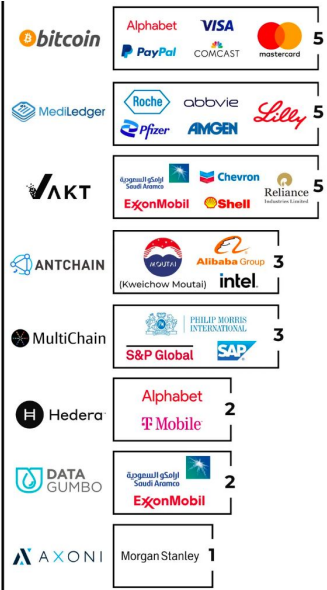
WHAT WE
ARE
BUILDING
UPON



Hyperledger Fabric was preferred solution for 38% of the top 100 companies in 2022.

TOP BLOCKCHAIN TECHNOLOGIES USED BY THE TOP 100 INSTITUTIONS (OCTOBER 2022)

BLOCKDATA



Openly developed by the world's leading companies like, **IBM, Hitachi, Huawei, Oracle and more**





Fabric v3.0 Coming Soon is the first release to provide a BFT ordering service based on the SmartBFT consensus library.

New Maintainer!
Tatsuya Sato HITACHI



Meet the
Hyperledger Fabric
Maintainers



David Enyeart - IBM



Meet the
Hyperledger Fabric
Maintainers



Yacov Manevich - IBM



Meet the
Hyperledger Fabric
Maintainers



Tatsuya Sato - Hitachi, Ltd.



Global Hyperledger Fabric Use Cases : Supply Chain

MEMBER COMPANY



TECHNOLOGY USED



Traceability

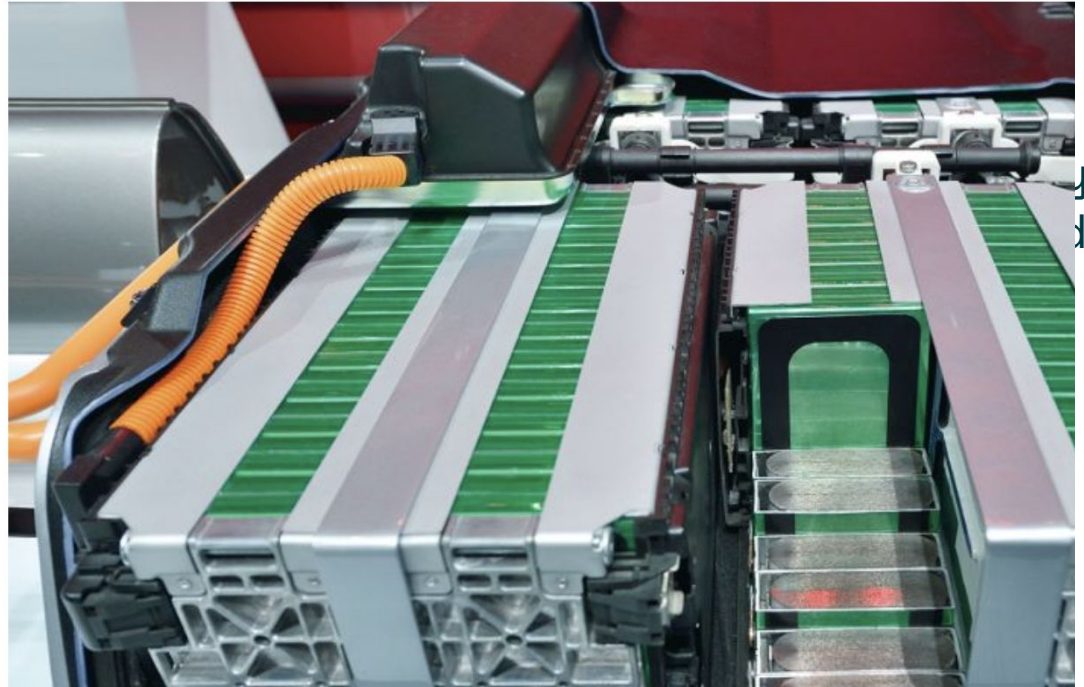
Electronic Vehicle Battery
Passports



AUTONOMOUS & ELECTRIC MOBILITY | AV/EM NEWS | ELECTRIFICATION

EU to Enact EV Battery 'Passport' in 2027

By Austin Weber



Digital Money

Allow peer-to-peer transactions and cross-border payments

Reduce transaction times and costs by eliminating intermediaries, allowing for faster and more efficient payments.

Make banking services more accessible to unbanked or underbanked populations, providing them with access to financial services and promoting financial inclusion.

[Download ebook](#)



Wholesale CBDC with Hyperledger Fabric and Cacti and Token SDK
Recent Workshop



Recently selected Hyperledger Besu for their CBDC projects.



Swift CBDC sandbox. 18 central and commercial banks.
Hyperledger Firefly + Quorum and Corda

CBDC projects and experimentations with Hyperledger tech around the world*

Today's Central Bank Digital Currencies Status

Database update: August 2023 • News update: Aug, 16 23

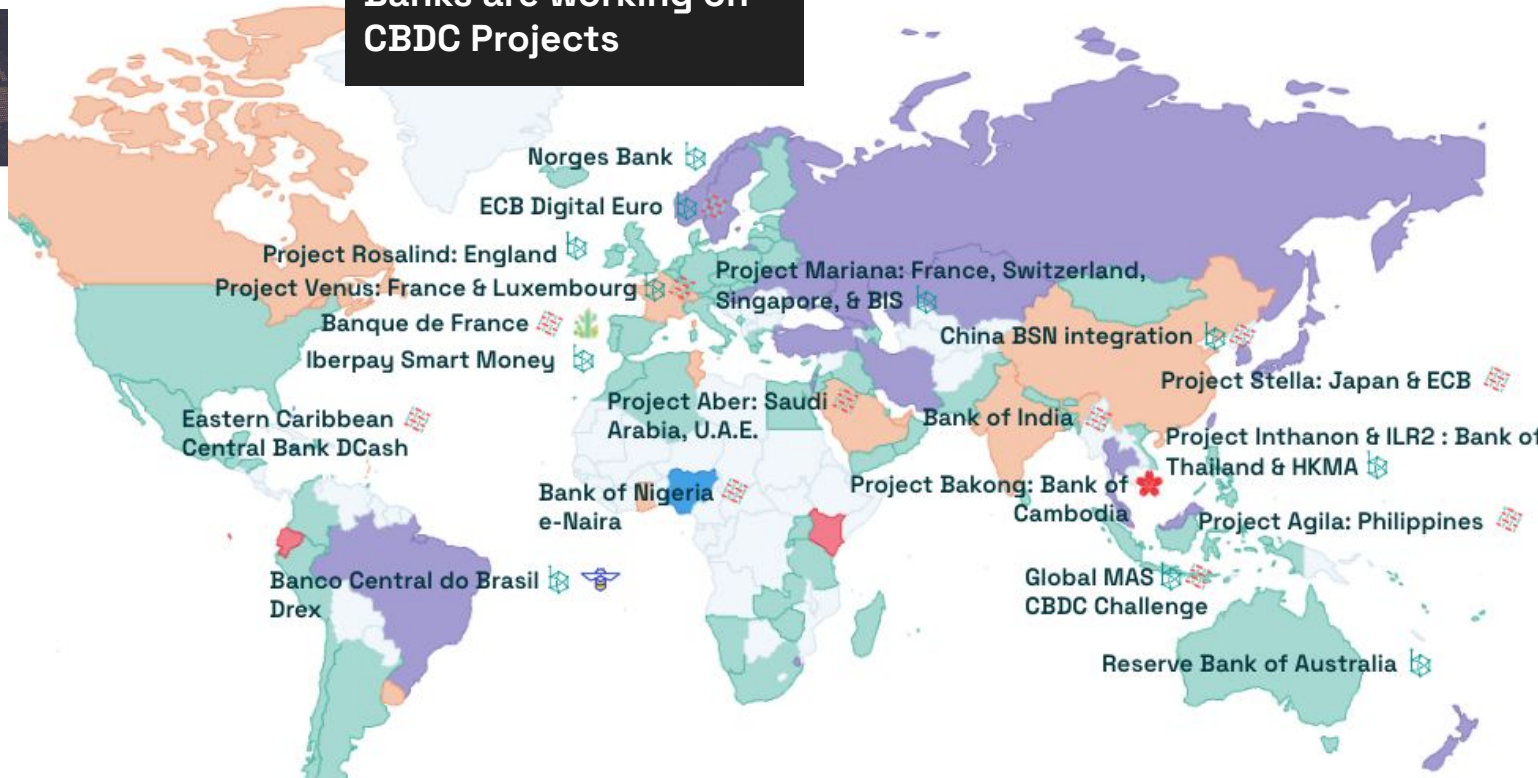
90%+ of Central Banks are working on CBDC Projects

Cancelled Research Proof of concept Pilot Launched



[download ebook](#)

- Hyperledger **BESU**
- Hyperledger **CACTI**
- Hyperledger **FABRIC**
- Hyperledger **FIREFLY**
- Hyperledger **IROHA**



*publicly announced - [CBDC Tracker](#); [bis.org](#)

Swift CBDC Sandbox



HYPERLEDGER
FIREFLY

- The live sandbox developed for Swift by Kaleido using Hyperledger Firefly hosts 18 central banks and commercial banks to help define the future of CBDCs in cross-border payments.
- The sandbox provided an environment for financial institutions to collaborate, explore, assess, and improve our experimental CBDC interlinking solution – as well as to define the next generation of supported payment flows and use cases.
- More than 30 financial institutions across the world are taking part in the second phase of sandbox experiments to explore further use cases



Our solution has been successfully tested across almost 5,000 transactions between two different blockchain networks and a traditional fiat currency, and we're delighted to have the support of our community in developing it further.

Tom Zsach Chief Innovation Officer, Swift



[Read phase 1 report](#)
[Read Phase 2 report](#)



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Spectrum of blockchains - for today's enterprise

not one size fits all!

Permissioned vs. Permissionless: Who can write to a Blockchain (accessibility)

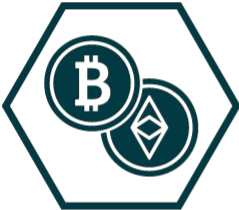
Public vs. Private: Who can read from a Blockchain (visibility)

Permissionless Public

Permissionless Private

Permissioned Public

Permissioned Private



Bitcoin, Ethereum



Public Polls



Land titles, University degrees



Medical records



- Hyperledger Besu is an open source Ethereum execution client written in Java.
- Public and Private Options
- Besu implements the EEA specification.
- Besu can run all Ethereum smart contracts, and you can use all Ethereum ERC Standards on it, including:
 - ERC-20 - Fungible Tokens
 - ERC-721 - NFT Tokens
- Besu is being used by many in the financial industry as well as those that **wish to work in both the public and private blockchain space** or those that don't want to have to make a firm decision between working on public or private chains.

A screenshot of a Forbes article. At the top is the "Forbes" logo in white on a black background. Below it is the breadcrumb "FORBES > FORBES DIGITAL ASSETS". The main headline is "Hyperledger Unanimously Approves First Ethereum Codebase For Enterprises" in a large, bold, black font. Below the headline is the author's name "Michael del Castillo Forbes Staff" and a bio: "Senior editor covering bitcoin and other blockchain applications." To the right of the bio is a blue "Follow" button. Below the bio is the date "Aug 29, 2019, 10:59am EDT". At the bottom of the article preview is a white audio player with a play button, the text "Listen to article 7 minutes", and a volume icon. Below the audio player is a large image of the Ethereum logo (a gold diamond shape) centered on a dark background with other faint logos around it. At the bottom right of the image is a link: "> [wiki.hyperledgerbesu](\"http://wiki.hyperledgerbesu\")".

Market Leading

A recent analysis by Blockdaemon of the technology **powering the global tokenization ecosystem** found that Hyperledger Besu was the most frequently mentioned protocol in a survey of 92 different firms, ranging from bank asset managers to clearing houses.



40% of the surveyed firms cited **Hyperledger Besu**

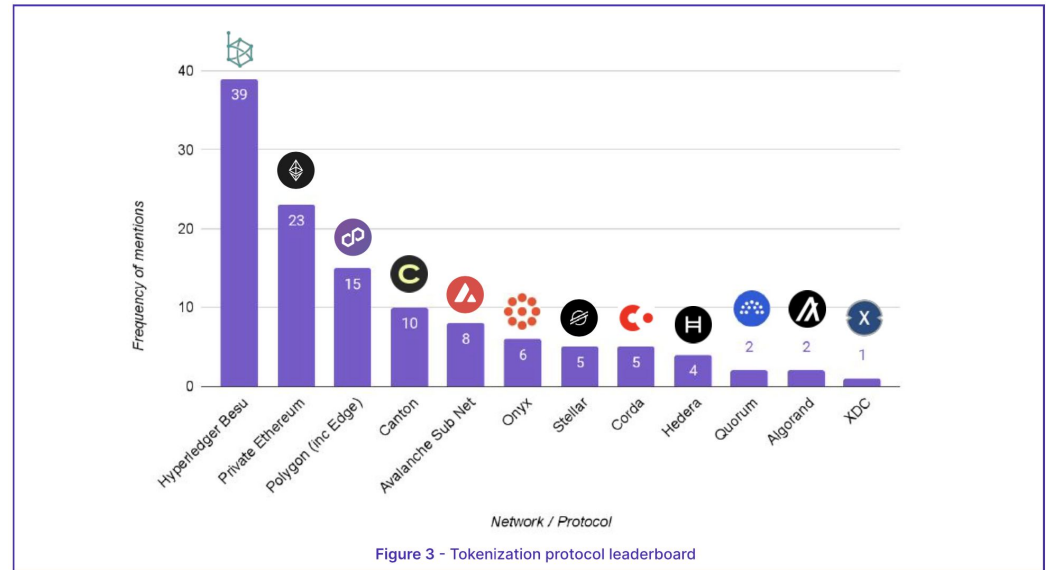


Figure 3 - Tokenization protocol leaderboard

Client Diversity Is NOT Optional : Besu is critical



Client Distribution

[View Staking Pool Diversity](#)

Goal: <33% | Danger: >50%

Consensus Clients

! Client diversity has improved!

Prysm - 37.99%



Lighthouse - 30.33%



Teku - 19.63%



Nimbus - 11.13%



Lodestar - 0.91%



Other - 0.0%



Grandine - 0.0%

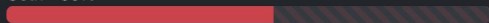


Data provided by [Sigma Prime's Blockprint](#) — updated daily.
Data may not be 100% accurate. ([Read more](#))

Execution Clients

! Switch from Geth to a minority client!

Geth - 55%



Nethermind - 28%



Besu - 14%



Erigon - 3%



Other - 0%



Data provided by [supermajority.info](#) — updated manually.
Data may not be 100% accurate. ([Read more](#))

Based on 66.1% self-reported network coverage with the
remaining assumed to be mostly Geth.

Besu has **~14%** share of all Ethereum mainnet nodes.

Besu has received one of the Ethereum Client Incentive Program (CIP) grants for developers.

Besu Financial Services Working Group



The mission is driving working sessions for enterprise users and code contributors to come together for:

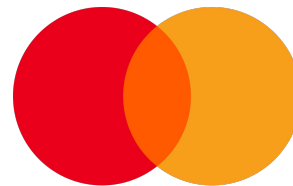
- Identifying challenges that enterprise users face when operationalizing Besu for enterprise use cases
- Defining new features and enhancements that drive alignment between Besu and enterprise-level requirements

The main deliverables expected to come out of this WG include, but are not limited to:

- A prioritized and detailed list of enhancements of existing features of Besu
- A prioritized and detailed list of new features of Besu
- A prioritized and detailed list of technical limitations of Besu
- A list of recommended practices of Besu for enterprise use cases



kaleido



mastercard



<https://wiki.hyperledger.org/display/BFFWG/>

Use case tracker: Explore 200+ use cases built with Hyperledger technologies

The screenshot displays a user interface for a 'Use case tracker' with a search bar at the top. The main content is a grid of project cards, each featuring a logo, title, organization, description, news and reports, website, and videos. The visible cards include:

- VINTURAS®**: Vinturas - solution for the glob... ORGANIZATION: Vinturas, Axxess Logistics (Sweden), N... DESCRIPTION: Vinturas is the first cloud-based supply chain network solution bringing private blockchain technology to the OEM Industry and Logistics Service ... WEBSITE: <https://www.vinturas.com/>
- vertrax Blockchain**: Vertrax - Blockchain Technolo... ORGANIZATION: Vertrax, IBM DESCRIPTION: Vertrax Blockchain is first-to-market technology designed to solve the biggest challenge throughout the oil and gas supply chain - visibility. Built on ... WEBSITE: <https://vertrax.com/blockchain/>
- UTC UAE TRADE CONNECT**: UAE Trade Connect - Trade Fin... ORGANIZATION: Avanza Innovations DESCRIPTION: Incorporated in Dubai, UAE Trade Connect (UTC) is a trade finance platform, aiming to de-risk trade finance transactions in the banking and financ... WEBSITE: <https://eandenterprise.com/en/uae-tra...>
- TYDE i**: TYDEI - Medical Device Manag... ORGANIZATION: BTP (Blockchain Technology Partners)... DESCRIPTION: TYDEI is a Simplified Medical Device Management Ecosystem For Surgical Services. US-based healthcare startup TYDEI ... WEBSITE: <https://tydei.io/>
- Gouze connect&trace**: GOUZE - Connect and Trace ORGANIZATION: SIGNEDBLOCK DESCRIPTION: Gouze is a ready-to-use Blockchain-based platform that offers companies traceability of their products and services... WEBSITE: <https://gouze.io/>
- ROOTCHAIN**: ROOTCHAIN - Industrial Block... ORGANIZATION: Shuzhengzhi DESCRIPTION: ROOTCHAIN provides manufacturing enterprises with blockchain-based public service platforms and innovative solutions such as intelligent productio... WEBSITE: <https://www.rootchain.com.cn/product...>
- MINEHUB**: MineHub - Metal and Mining In... ORGANIZATION: KrystC, MineHub, BHP, ING DESCRIPTION: Built on Hyperledger Fabric, MineHub is an enterprise blockchain platform that allows parties involved in selling, buying, delivering and paying for a ... WEBSITE: <https://minehub.com/>
- Walmart Canada**: DL Freight - Freight Invoice Ma... ORGANIZATION: Walmart, DLT Labs DESCRIPTION: DL Freight is a reconciliation-free invoice and payment solution, based on Hyperledger Fabric, that provides unparalleled transparency into supply ... WEBSITE: <https://www.dtlabs.com/platforms/ass...>



The Promise of Decentralized Technologies



Open
source is
open to all

- + Open source
- + Open development
- + Open governance

IS THE FUTURE OF
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TECHNOLOGIES**





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Daniela Barbosa
Linux Foundation
Hyperledger
Foundation



Marcelo Gracietti
CEO Cheesecake
Labs



Charles Hoskinson
CEO & Founder Input
Output Global



Sophia Lopez
Founder and
President
Kaleido



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Ready to shape the
future of decentralized
technologies?

<https://www.hyperledger.org/join-us>