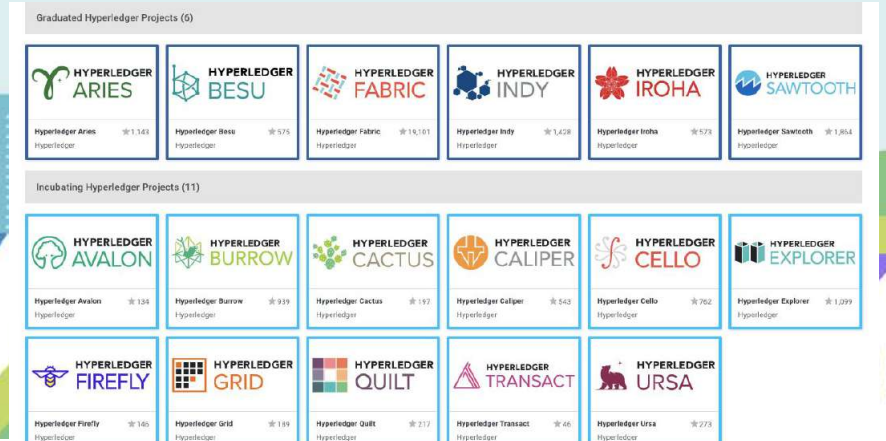
# On Your 3 Year Anniversary!

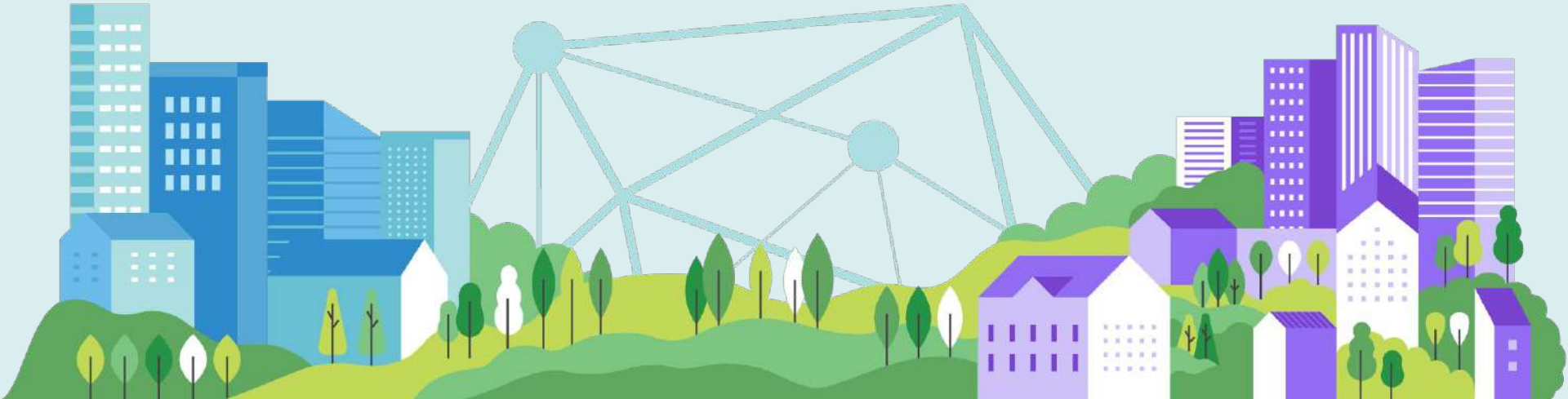
HYPERLEDGER FOUNDATION

# Diverse Ecosystem of Enterprise Technology & Use Cases

Media & Entertainment
Public Sector
Supply Chain
Climate Action
Telecom
Education
Healthcare
Digital Identity
Capital Markets
Energy
Finance
Insurance

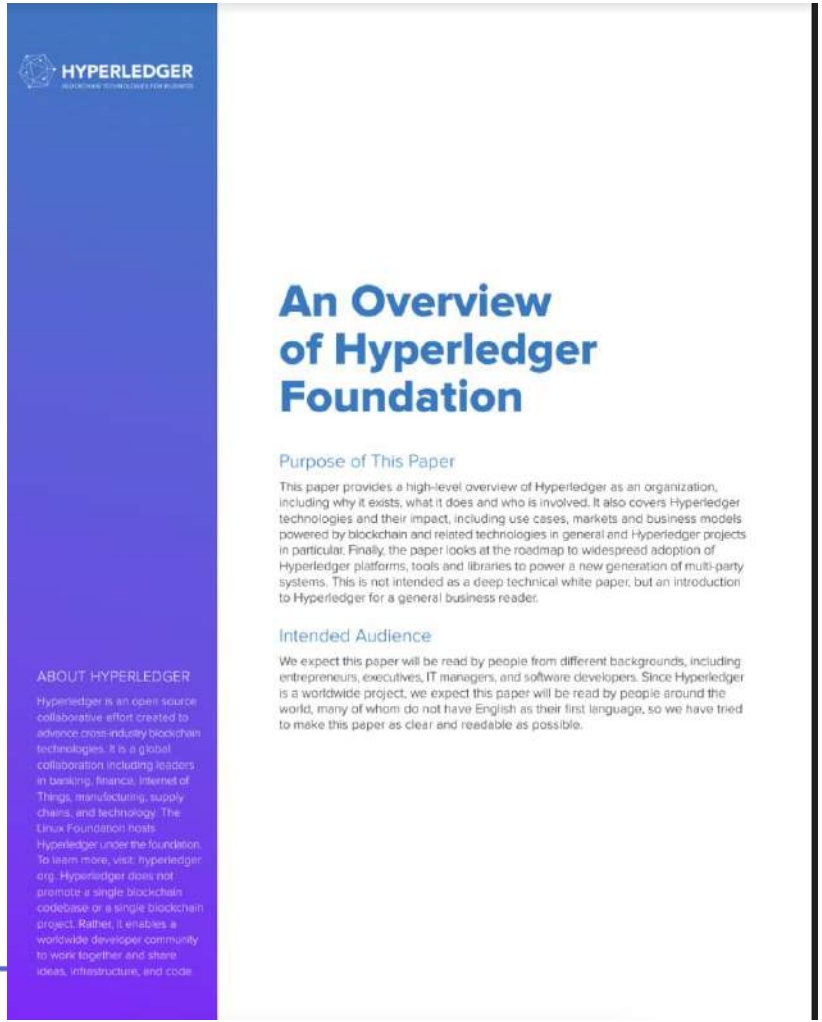


# HYPERLEDGER FOUNDATION



# Highlights of the Hyperledger Foundation paper :

- Audience both business and technical
- Defines why the Hyperledger Foundation exists and what it does
- Why enterprise blockchain
- Outline of Hyperledger technologies
- Shows Hyperledger in Action and the Road to Widespread Adoption


HYPERLEDGER

ABOUT HYPERLEDGER

Hyperledger is an open source collaborative effort created to advance cross-industry blockchain technologies. It is a global collaboration including leaders in banking, finance, Internet of Things, manufacturing, supply chains, and technology. The Linux Foundation hosts Hyperledger under the foundation. To learn more, visit: hyperledger.org. Hyperledger does not promote a single blockchain codebase or a single blockchain project. Rather, it enables a worldwide developer community to work together and share ideas, infrastructure, and code.

An Overview of Hyperledger Foundation

Purpose of This Paper

This paper provides a high-level overview of Hyperledger as an organization, including why it exists, what it does and who is involved. It also covers Hyperledger technologies and their impact, including use cases, markets and business models powered by blockchain and related technologies in general and Hyperledger projects in particular. Finally, the paper looks at the roadmap to widespread adoption of Hyperledger platforms, tools and libraries to power a new generation of multi-party systems. This is not intended as a deep technical white paper, but an introduction to Hyperledger for a general business reader.

Intended Audience

We expect this paper will be read by people from different backgrounds, including entrepreneurs, executives, IT managers, and software developers. Since Hyperledger is a worldwide project, we expect this paper will be read by people around the world, many of whom do not have English as their first language, so we have tried to make this paper as clear and readable as possible.

# The mission of the  Hyperledger Foundation is to:

- ***Foster and coordinate the premier community*** of software developers building enterprise grade open source software, in the form of platforms, libraries, tools and solutions***, for multiparty systems using blockchain, distributed ledger, and related technologies.***
- Host the technical infrastructure for the Foundation, ***establishing a neutral home for community infrastructure,*** meetings, events, and collaborative discussions.
- ***Drive broad adoption of the technology*** by building a substantial and diverse ecosystem of solution providers delivering production solutions and networks, and organizing industry end-users.
- ***Advocate for the use and adoption of enterprise multiparty systems technologies*** through marketing, education and outreach; and work with other aligned organizations to accelerate implementation and public acceptance.

# Hyperledger Momentum

**~6**

Years since launch

**4**

Libraries

**6**

Tools

**6**

Distributed Ledgers

**6**

Graduated Projects

**Global**

~200 Members

**16**

Active Community Working Groups & Special Interest Groups

**180+**

Meetups Worldwide (81 + countries)

**79K+**

Meetup Participants

**11,000+**

Subscribers to our mailing lists

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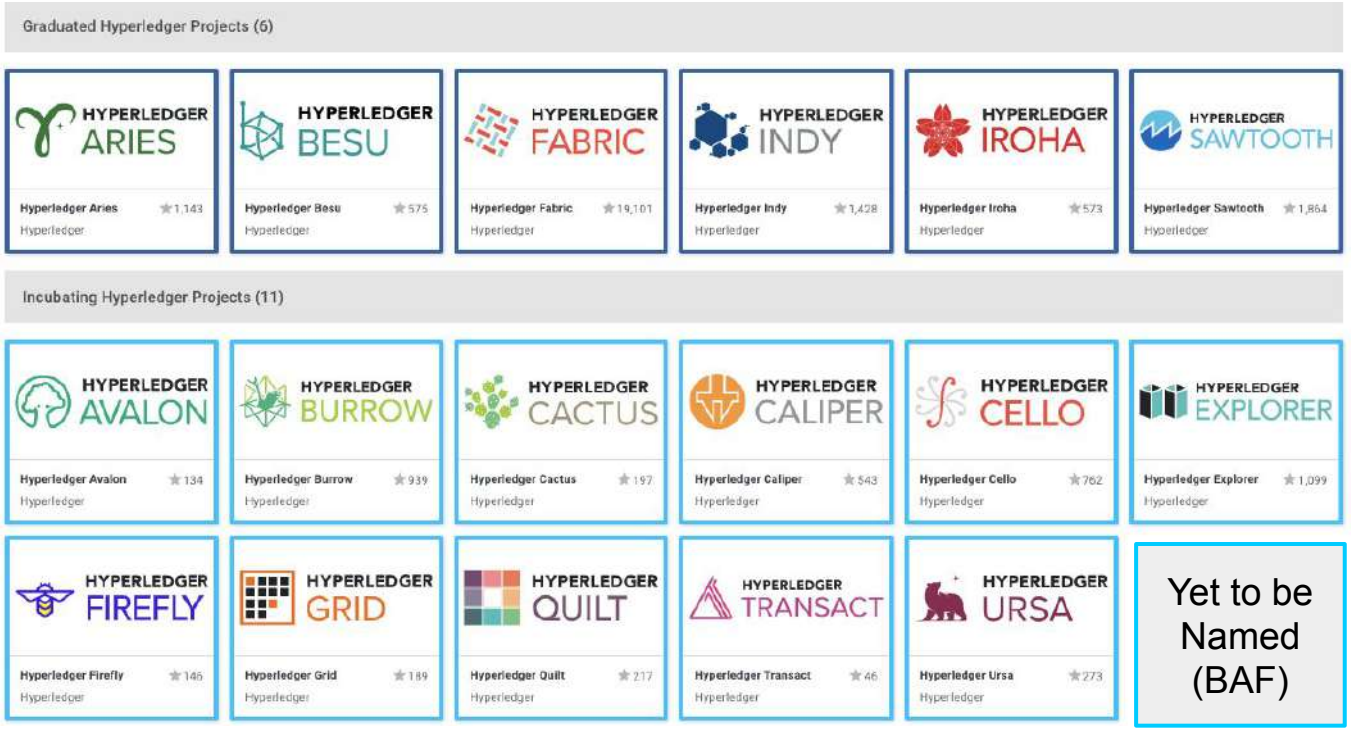
# Project Landscape

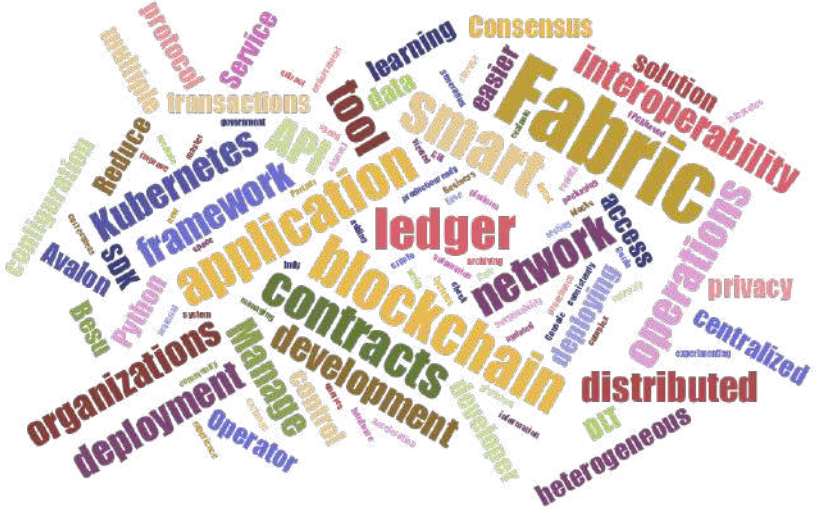


# Hyperledger Labs - a place to innovate and experiment

Top 10 Most Active Labs by Pull Requests (in the past 90 days)

- blockchain-automation-framework
- business-partner-agent
- orion (orion-server, orion-sdk-go)
- solang
- fabric-smart-client
- perun (perun-*, go-perun)
- fabric-token-sdk
- weaver-dlt-interoperability
- blockchain-carbon-accounting
- fabric-operations-console

**50+**

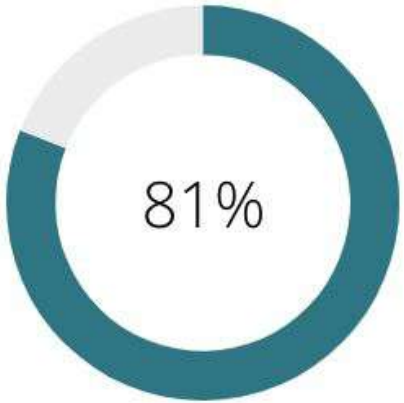


# Adoption and Use Cases

# Deloitte's 2021 Global Blockchain Survey

THE CASE FOR NEW FUNDAMENTALS

Percentage of respondents who agree that blockchain technology is broadly scalable, and has achieved mainstream adoption




*survey of 1,280 senior executives and practitioners

Deloitte.

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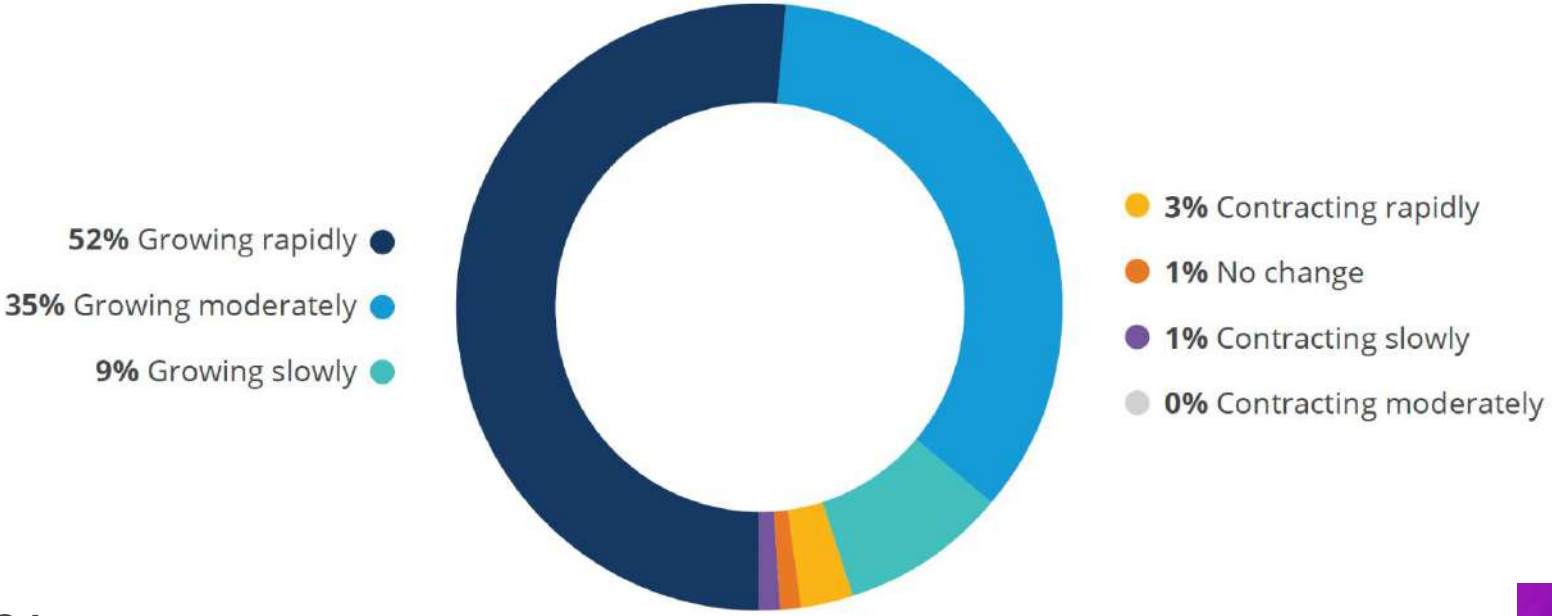
# Blockchain Growth

**Q19. Where do you see business blockchain technology going over the next 2 years?**

N=159, single response, percent responding



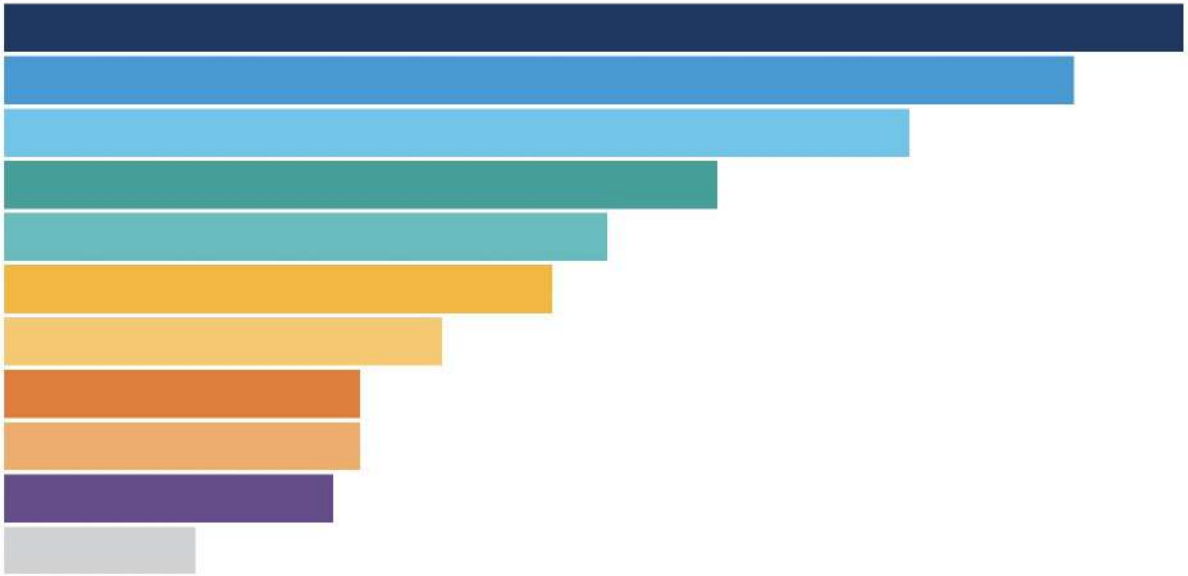

**87%** Growing rapidly or moderately

Survey respondents View “open source” as the most appealing enterprise blockchain attribute

# Blockchain Application Categories

**Q17. Which of the following best categorize the blockchain application(s) being developed or deployed within your organization? Check all that apply.**

N=189, multiple response, percent responding



- **43%** Financial Services
- **39%** Supply Chain
- **33%** Identity
- **26%** Education & Research
- **22%** Government & Legal
- **20%** Healthcare
- **16%** Energy & Resources
- **13%** Non-profit & Social Impact
- **13%** Mobility & Transport
- **12%** Media & Entertainment
- **7%** Other (please specify)

# Key Areas of Growth where Hyperledger technology is Active

## PAYMENTS & TRADE FINANCE

- Re-structuring the plumbing of the global financial system
- Opportunity for new instruments (Stablecoins, CBDCs)
- 86% of Central Banks exploring CBDC, 60% have pilots (BIS)
- Greater efficiency, fraud prevention, inclusion

**Bank of Cambodia's Project Bakong** is an interbank payment system officially launched in October 2020: currently **links 11 domestic commercial banks and payment processors**. Recorded 1.4 million transactions, amounting to a value of about $500 million, in the first half of 2021. Built on Hyperledger Iroha with **Soramitsu**

**Eastern Caribbean Central Bank** launched its **live CBDC called DCash** which is built on Hyperledger Fabric.

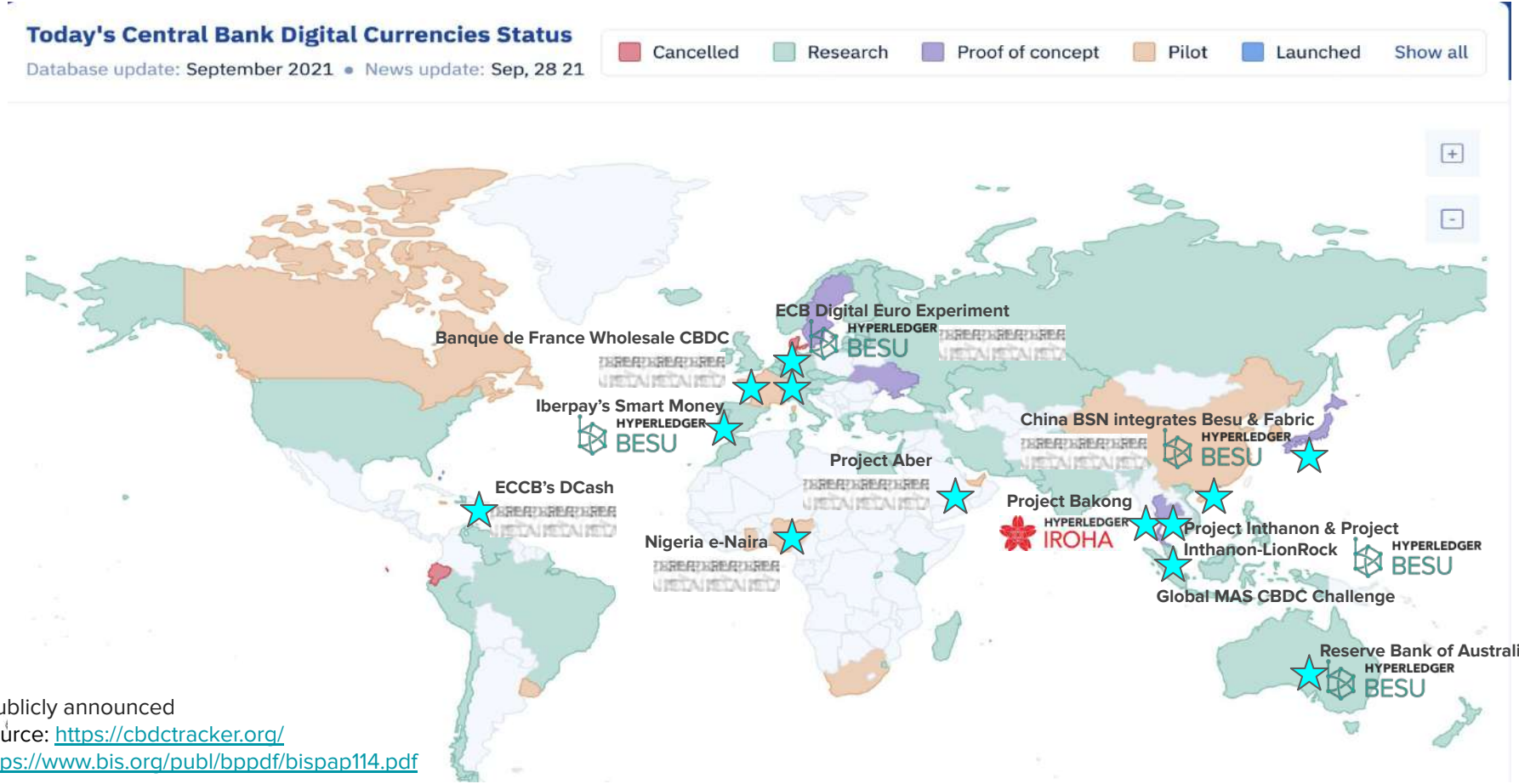
The **Bank of Thailand**'s Project Inthanon-Lion Rock is using **Hyperledger Besu for its pilot CBDC** network.

**Global Shipping Business Network** (GSBN) is covering 1 in 3 containers in WW maritime shipping and being leveraged by 300 organizations built on **Hyperledger Fabric using Oracle Blockchain Platform** and AliBaba Cloud Fabric nodes.

**TradeLens** ecosystem has more than 300 orgs– extending to more than 10 ocean carriers and encompassing data from more than 600 ports and terminals. Already it has tracked over 42 million container shipments, close to 2.2 billion events and roughly 20 million published documents using **Hyperledger Fabric**

**we.trade** operates as a SaaS model and has already onboarded 16 banks across 15 countries onto the **Hyperledger Fabric** platform which prioritizes privacy.

# CBDC projects and experimentations with Hyperledger around the world*




*publicly announced
Source: https://cbdctracker.org/
https://www.bis.org/publ/bppdf/bispap114.pdf

# Key Areas of Growth where Hyperledger technology is Active

## PROVENANCE & SUPPLY CHAIN

- Potential boost to global GDP by 2030 US$962bn
- Verify and track the source of goods
- Prevent fraud and counterfeit of goods
- Customer loyalty through transparency
- Touches all industries

Circulor

Blockchain-based Traceability-as-a-Service to **verify responsible sourcing, underpin effective recycling and improve efficiency**. Notable customers include **Volvo Cars**, **Polestar, Vulcan Energy Resources** and **BHP.**

Walmart

Walmart and retailers and food companies such as Unilever, Nestlé and Dole, have created a **shared ledger accessible to each party in the supply chain, all food processing steps can be recorded and stored on the blockchain.**

Tencent Cloud

The supply chain financial system is empowered by **Tencent** TBaaS platform and **Hyperledger Fabric**, and integrates smart warehouse and IoT technologies. Through cooperation with various financial institutions, the system provides decentralized, trusted and efficient supply chain financial services. **Reporting 50% reduction** in warehousing document workload. Inventory check reduced from **10 people a day to 4 people a half day**.

ZUELLIG PHARMA

**Zuellig Pharma's eZTracker** is a blockchain based solution that provides pharmaceutical manufacturers visibility and traceability over their product's movements throughout the supply chain transforming patients' mobile devices into an instant verification tool, using Hyperledger Fabric.

# Key Areas of Growth where Hyperledger technology is Active

## IDENTITY

- Potential boost to global GDP by 2030 US$224bn
- Safeguard valuable credentials
- Unlocks potential efficiencies and new capabilities in any industry
- Streamline onboarding, records exchange, prevent fraud
- 29% in Deloitte survey say digital identity will have the most impact in financial transactions

bonifii™

**MemberPass** is the **first global digital identity ecosystem for credit unions and their members**. Provides consumer identity while protecting personal information. Adopted by more than 7 credit unions and counting, 20,000+ credentials issued. Built on Hyperledger Indy.

**The International Air Transport Association IATA Travel Pass** is a mobile app that helps travelers to store and manage their verified certifications for COVID-19 tests or vaccines. It was built with Evernym using **Hyperledger Indy** and **Hyperledger Aries.**

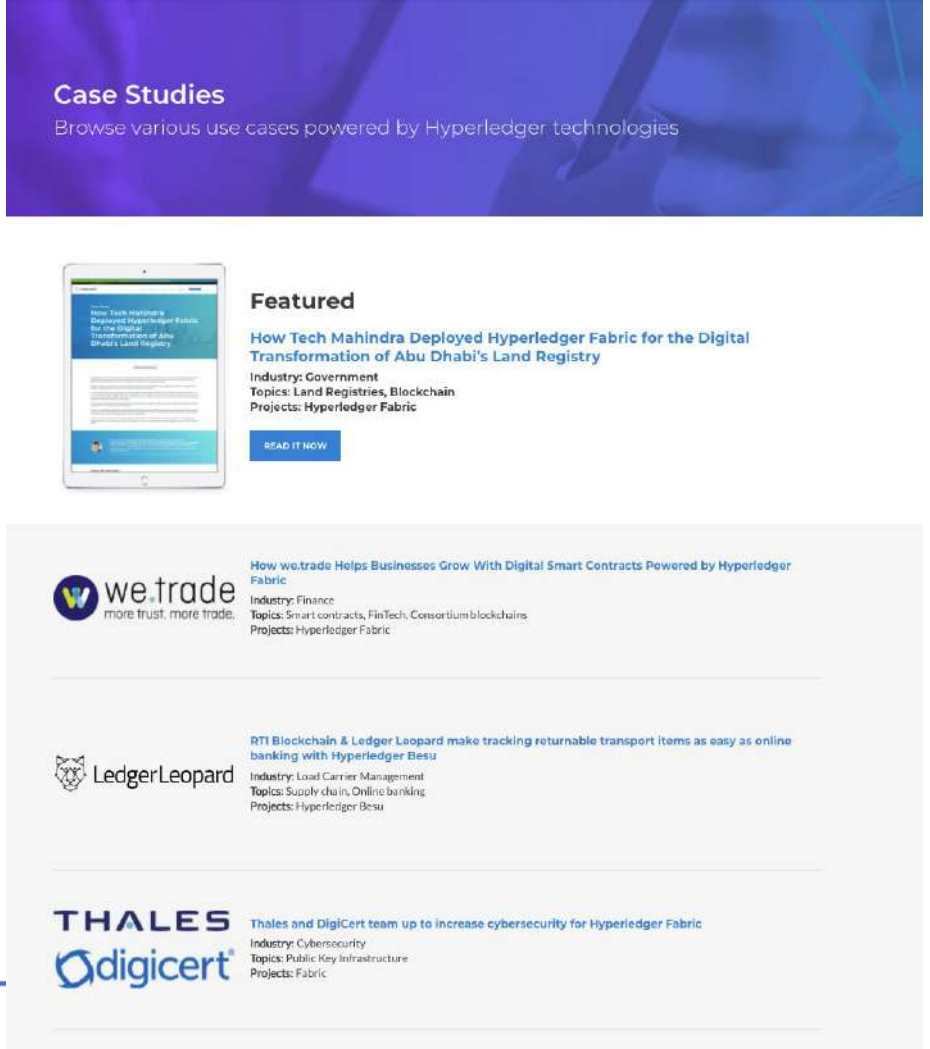
**Aruba Secure Health Card,** a pilot for sharing health information in a privacy-preserving way using DLT that **SITA** , the world's leading specialist in air transport communications built with Indicio using **Hyperledger Indy and Aries.**

iDunion

**IDUnion** has 39 cross-sector partners building **production-level infrastructure for verification of identity data in finance, manufacturing, public sector and healthcare**. Addressing demand for migrating centralized identity systems towards decentralized self-sovereign management of digital identities for people, organizations and machines. IDunion has launched an **Hyperledger Indy** test network, built components for allocation, verification and management of digital identities and more.

# Hyperledger Member Case Studies

On track to published 10 in 2021!

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# Hyperledger Member Case Studies

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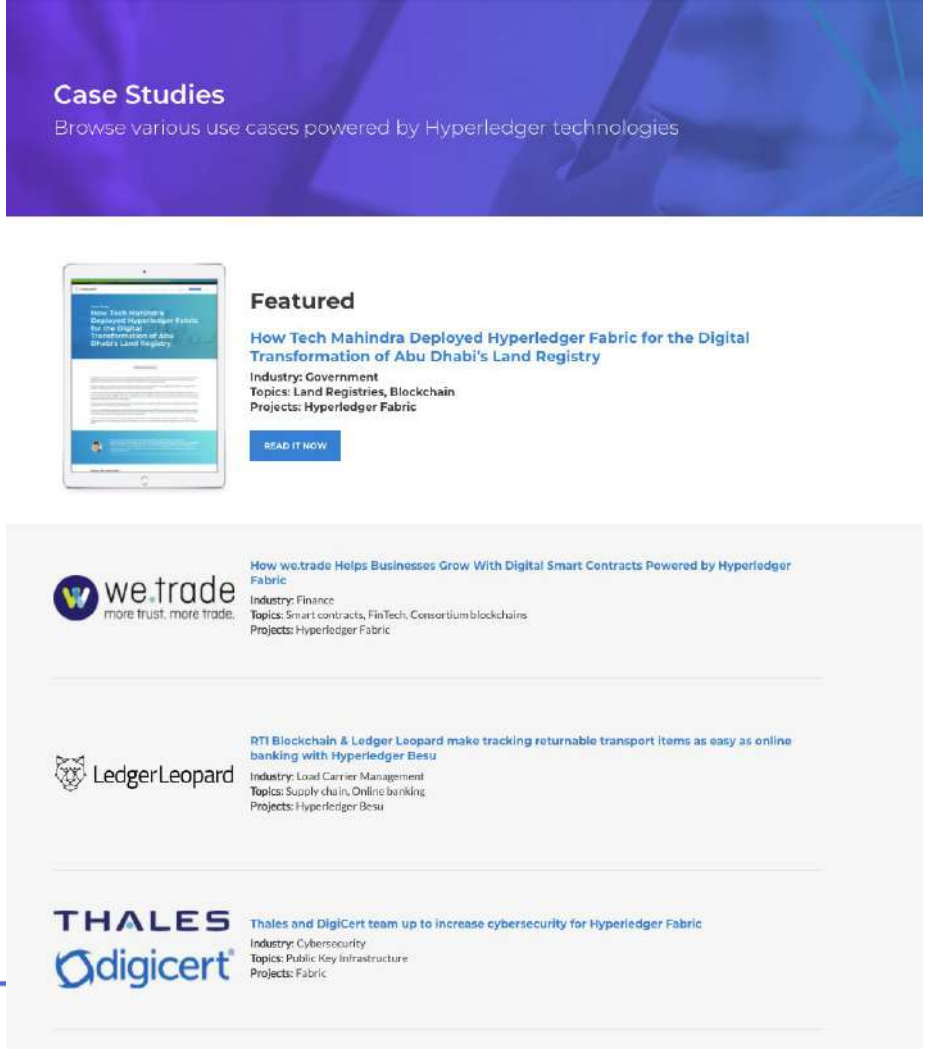


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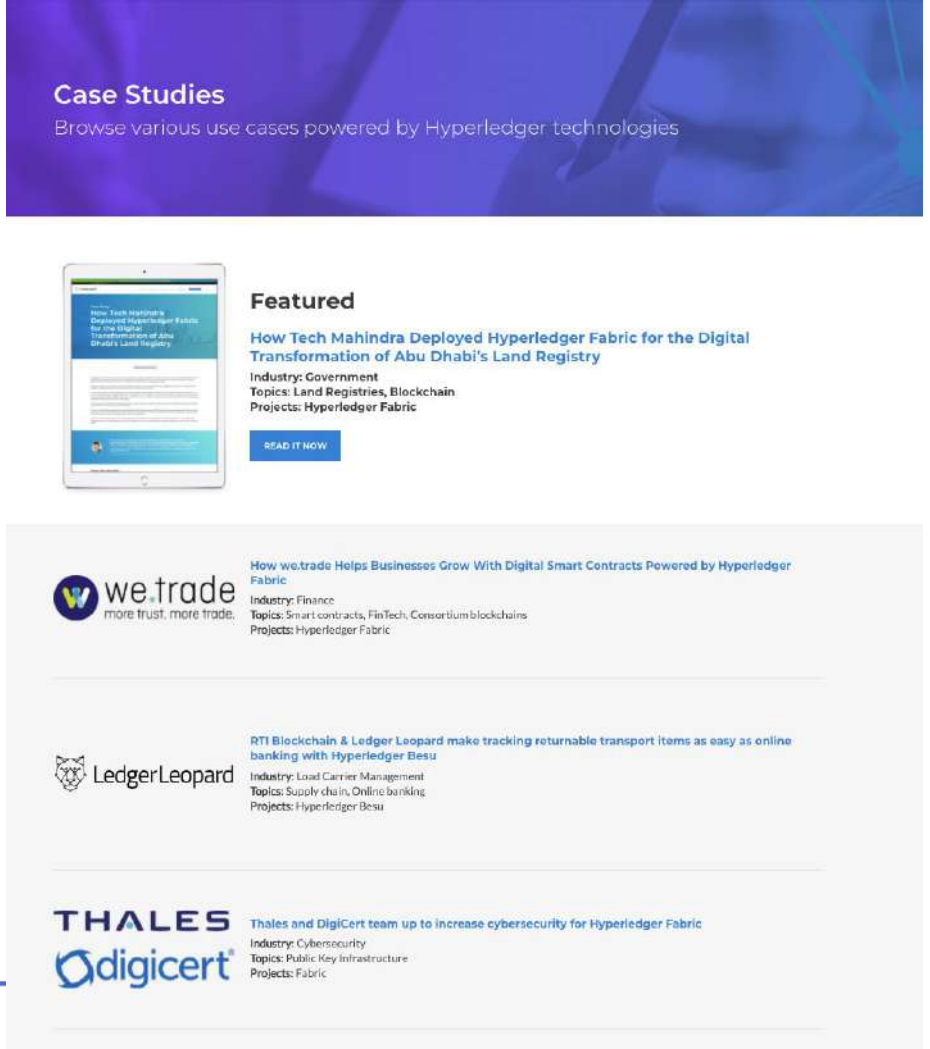


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# Blockchain Showcase

100+ showcase listings across many projects and use cases!

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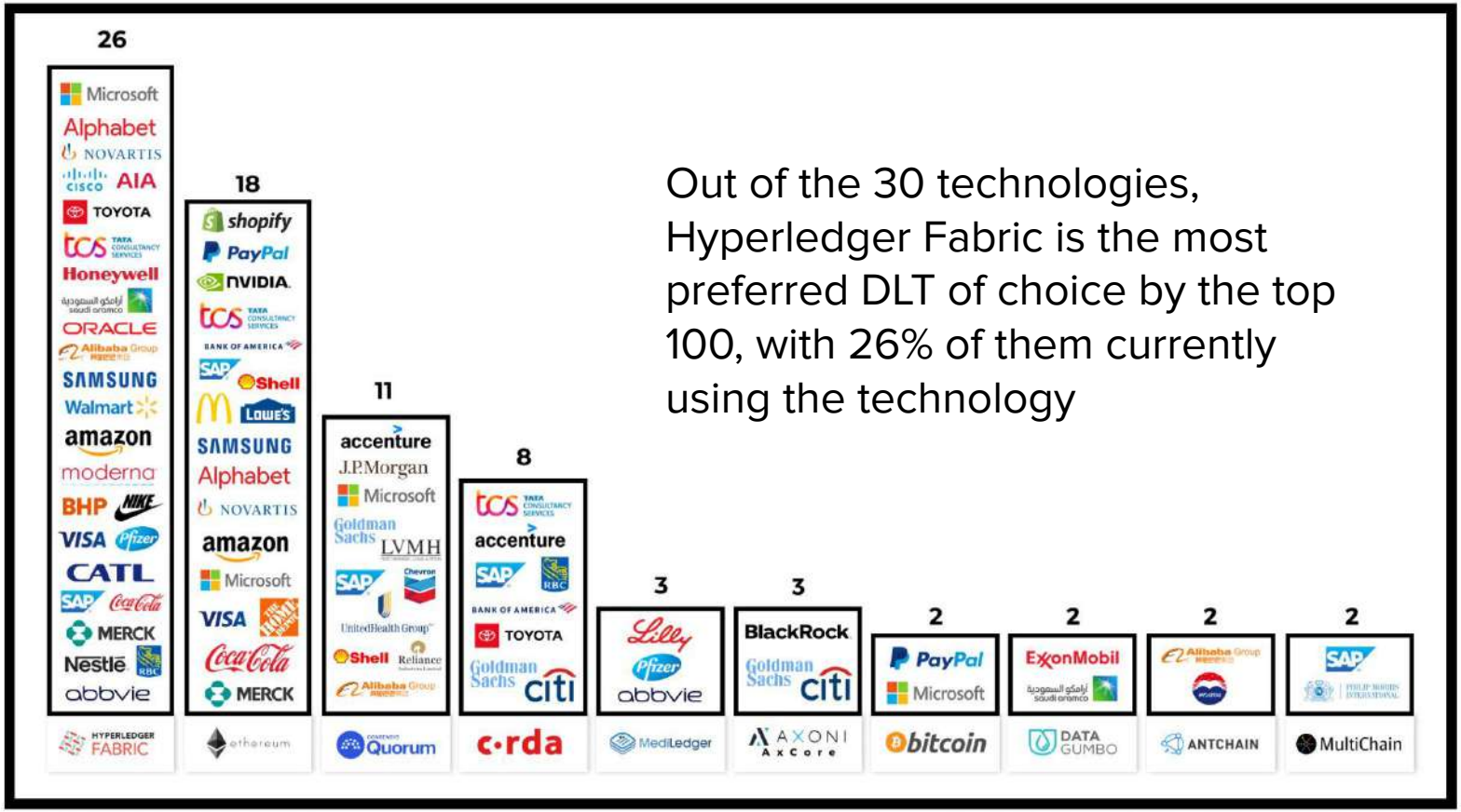
# TOP 10 TECHNOLOGIES USED BY THE TOP 100 INSTITUTIONS




Out of the 30 technologies, Hyperledger Fabric is the most preferred DLT of choice by the top 100, with 26% of them currently using the technology

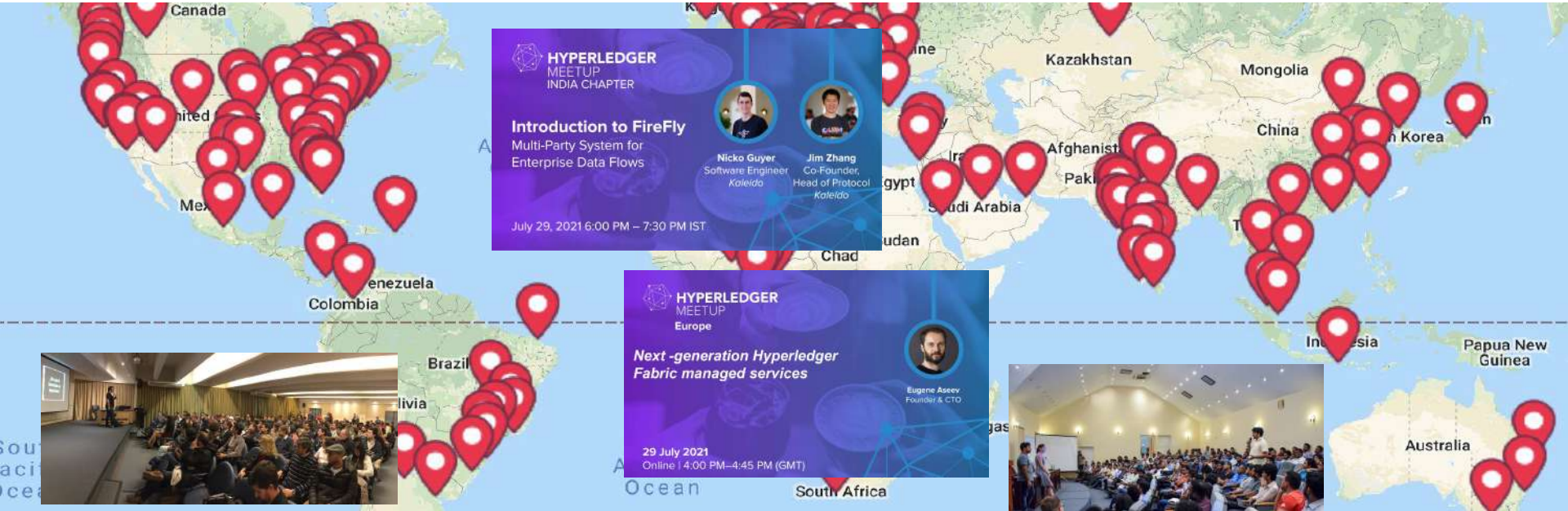
Community Growth

# Growing Global Meetup Community

**77,000+** Members

**180** Groups

**80+** Countries



# Hyperledger Regional Chapters

HYPERLEDGER
ITALIAN CHAPTER

HYPERLEDGER
JAPAN CHAPTER

HYPERLEDGER
LATINOAMÉRICA

HYPERLEDGER
INDIA CHAPTER

HYPERLEDGER
BLOCKCHAIN TECHNOLOGIES FOR BUSINESS

# Hyperledger in Multiple Languages

**13**

Languages Used to Host Meetups

(Chinese, English, French, German, Italian, Japanese, Korean, Malayalam, Polish, Portuguese, Serbian, Spanish, Urdu)

**8**

Translation Projects for Fabric Documentation

(Chinese, Portuguese, Japanese, Malayalam, Spanish, Russian, Tamil and French)

**6**

Translations to Hyperledger Home Page

(Chinese, French, Japanese, Malayalam, Portuguese, Spanish)

**11**

Sessions of a Free Online Spanish Language Fabric Training Course

created by the Hyperledger Latinoamerica Chapter

**Just launched! Hyperledger Fabric for Developersは日本語でも受講できます**

# Training and Certifications

Technical training courses and professional certifications to get everyone on your team up-to-speed on Hyperledger.

**Online Self Paced Training:**

- Blockchain: Understanding Its Uses and Implications
- Introduction to Hyperledger Technologies
- Introduction to Hyperledger Sovereign Identity Blockchain Solutions: Indy, Aries & Ursa
- Hyperledger Fabric Fundamentals

**Professional Certifications**

- **Certified Hyperledger Fabric Administrator (CHFA)**
- **Certified Hyperledger Fabric Developer (CHFD)**

HYPERLEDGER
TRAINING PARTNER

HYPERLEDGER FOUNDATION

**Visit: https://www.hyperledger.org/resources/training**

# Hyperledger Member Case Studies

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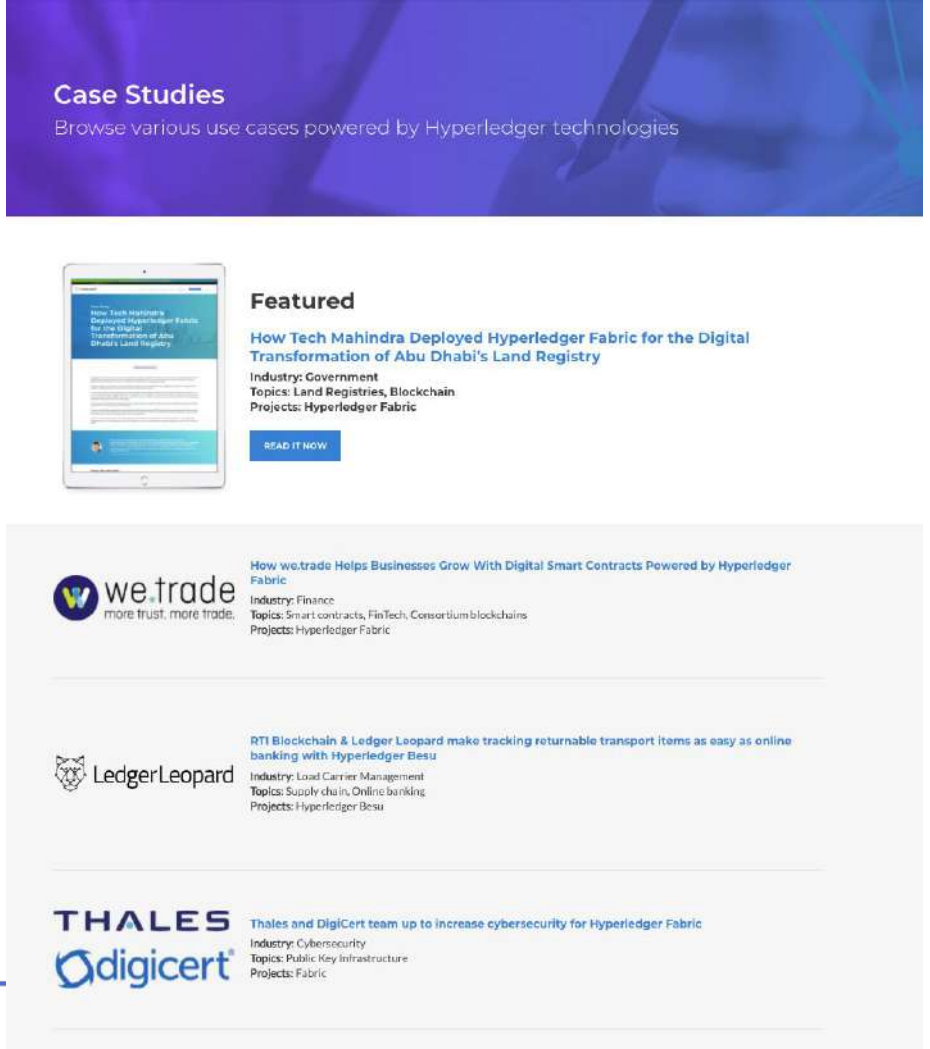


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# Don’t go it Alone - a Rich Commercial Ecosystem

Find your next partner via the **Hyperledger Vendor Directory** and **Hyperledger Certified Service Provider** ecosystem, a global network of technology partners, system integrators, consulting firms and solution vendors from a variety of industries working with Hyperledger technologies.

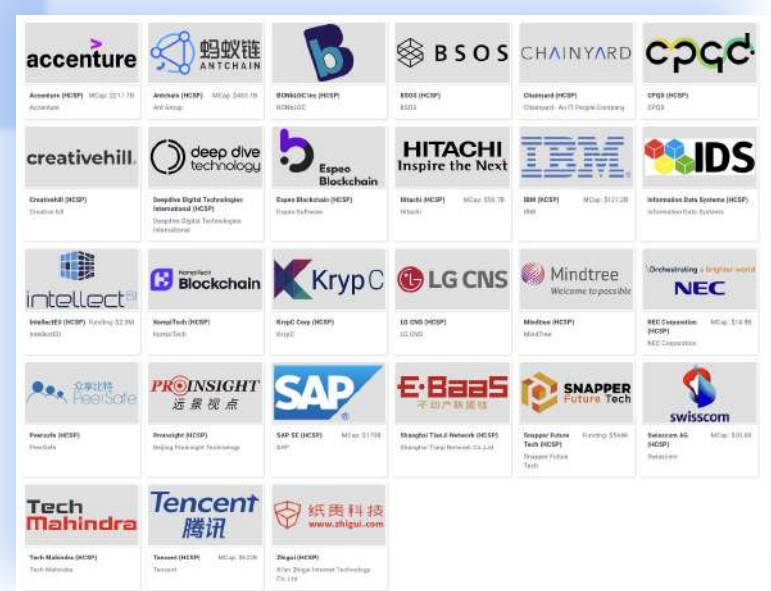
HYPERLEDGER FABRIC CERTIFIED SERVICE PROVIDER

**27+**

Global HCSPs

**80+**

Vendors

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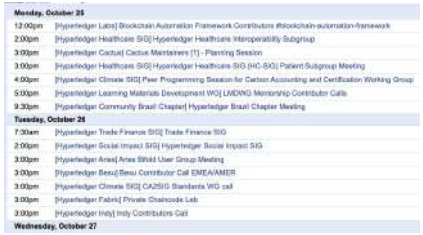
**Learn More:** https://www.hyperledger.org/use/hcsp

# Join Us. Contribute. Share

## Join a Community Call

## Contribute to a Project or Lab

## Write a Blog or Developer Showcase



HYPERLEDGER FOUNDATION

Congratulations to our Technical Steering Committee Members from our India Regional Chapter!

**Arun S M**

Staff Software Engineer, Walmart Global Tech India

**Kamlesh Nagware**

Chief Technology Officer, Snapper Future Tech

# On Your 3 Year Anniversary!

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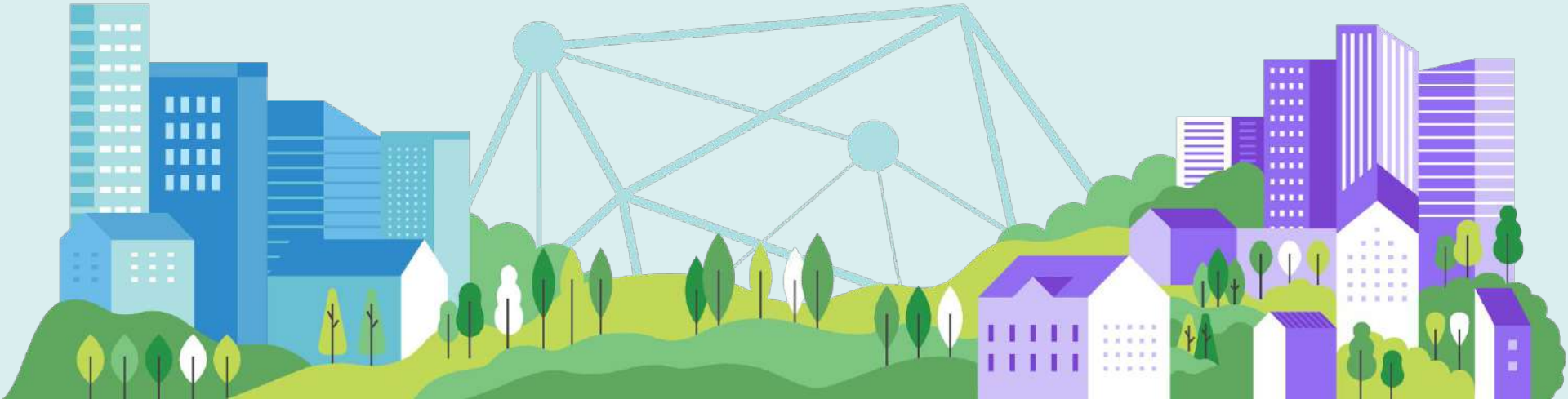
# THANK YOU !

www.hyperledger.org