Efforts of DPP using the Tapyrus blockchain and problem-solving through individual contribution actions.

October 8, 2024

Teruaki MURAKAMI

Self Introduction

- Teruaki Murakami, 40 years old
- COO of Chaintope Inc.
- Web Engineer → Sales → Business Integration
- Blockchain projects (non-crypto assets)
  - Corporate coins and payment services
  - Traceability, Circular Economy
  - Environmental value visualization, Government DX, Real Estate, etc.
- Born and raised in Fukuoka

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Company Introduction

Company Name	Chaintope Inc.
Establishment Date	December 27, 2016
Representative	CEO Hideki Shoda
Head Office	576-14 B211, Koubukuro, Iizuka City, Fukuoka
Business Activities	- Blockchain foundational technology development - Blockchain implementation - Custom application development related to blockchain - Related consulting services
Awards	Selected company for "J-Startup KYUSHU" in 2021 Excellence Award at the "20th Business Planning Clinic & Contest/BPCC20" hosted by the MIT Venture Forum Japan

Publication

"New Economy Opened by Blockchain"

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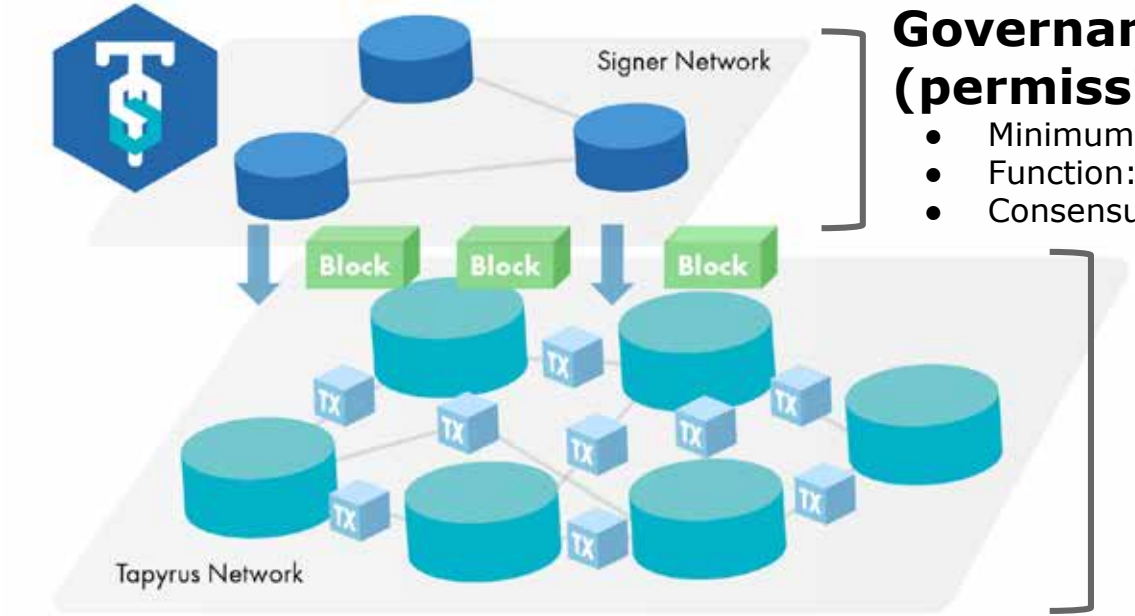
Tapyrus Blockchain

- Our self-developed **Tapyrus** blockchain features a two-layer structure.
- Governance Layer and Ledger Layer, enabling transparency suitable for enterprise use.



Governance Layer (permissioned):

- Minimum number of nodes: 3
- Function: Block creation
- Consensus Algorithm: Multi-signature

Ledger Layer (permissionless):

- Minimum number of nodes: 1 (full node)
- Functions: Transaction creation, Block verification, Block data retention

Philosophy

Purpose

Bringing Trust to the Data-Driven Society

Customer Value

Enhancing Data Transparency and Driving Transformation

Slogan

Implementing Blockchain in Society

Business Domains

Traceability

Sustainability

Trust Services

Digital Assets

Business Domains Detailed

Traceability

↓

Tracking People, Products, and Events

Sustainability

↓

Contribution to environmental value

Trust Services

↓

Proof of circulation

Digital Assets

↓

Promotion of behavioral change

Here are two initiatives:

DPP（Digital Product Passport）

ChaintopeGreeners

DPP（Digital Product Passport）

Project Examples

Case Example: Major Chemical Manufacturer
Chemical Recycling and DPP

Case Example: Uniform Sales Company
Medical Wear and DPP

Case Example: Elementary and Junior High Schools in Iizuka City
PET Bottle Cap Recycling Project

Case Example: Medical Wear and DPP

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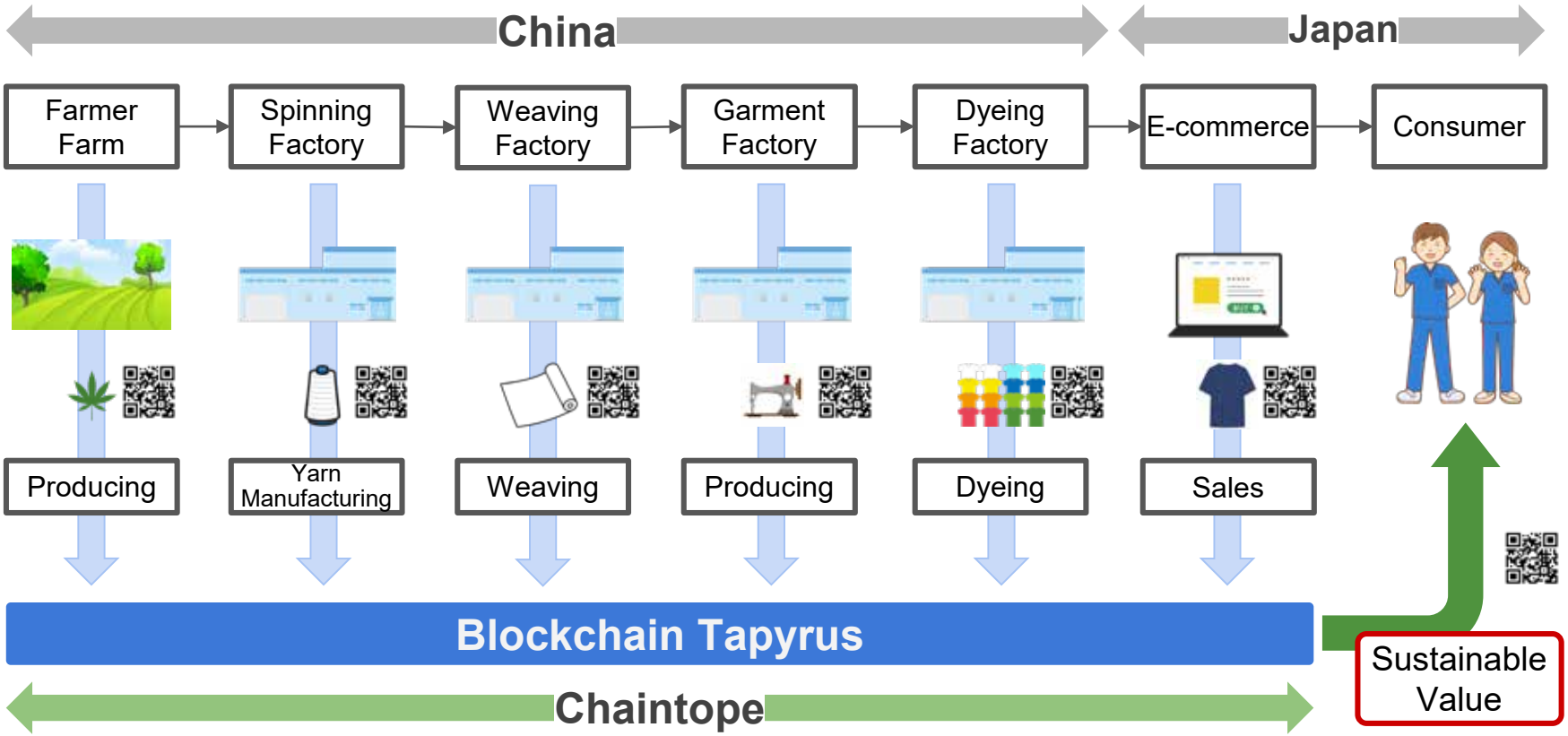


Case Example: PET Bottle Cap Recycling Project in Iizuka City Schools

Caps collected at schools in Iizuka City

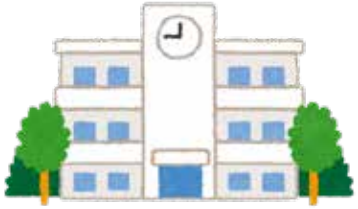
Sorted at facilities

Recycled at a factory

Manufactured into products at molding factories

Completion of planters (with QR code)

Donated to schools in Iizuka City



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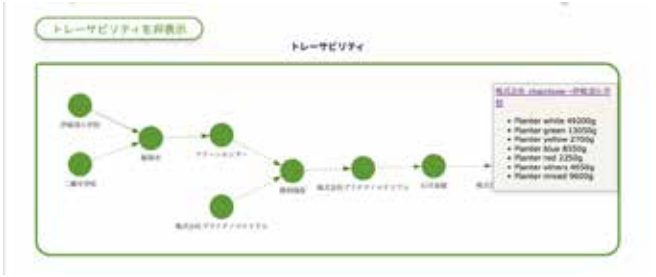


※Includes sample data.

Key Points of Blockchain Utilization

1. Traceability from Resources to Products

1. Proof of Environmental Value

1. Activities of Individuals and Companies and Their Evidence

Ensuring the transparency and verifiability of the above, making them traceable.

ChaintopeGreeners

Solving Corporate and Societal Issues Through Individual Contribution Actions.

How it Works:

- Record actions as evidence and issue tokens.
- Visualize the contributions made (e.g., safety, community, etc.).
- Provide feedback on contribution actions.
- Promote actions through the above cycle.

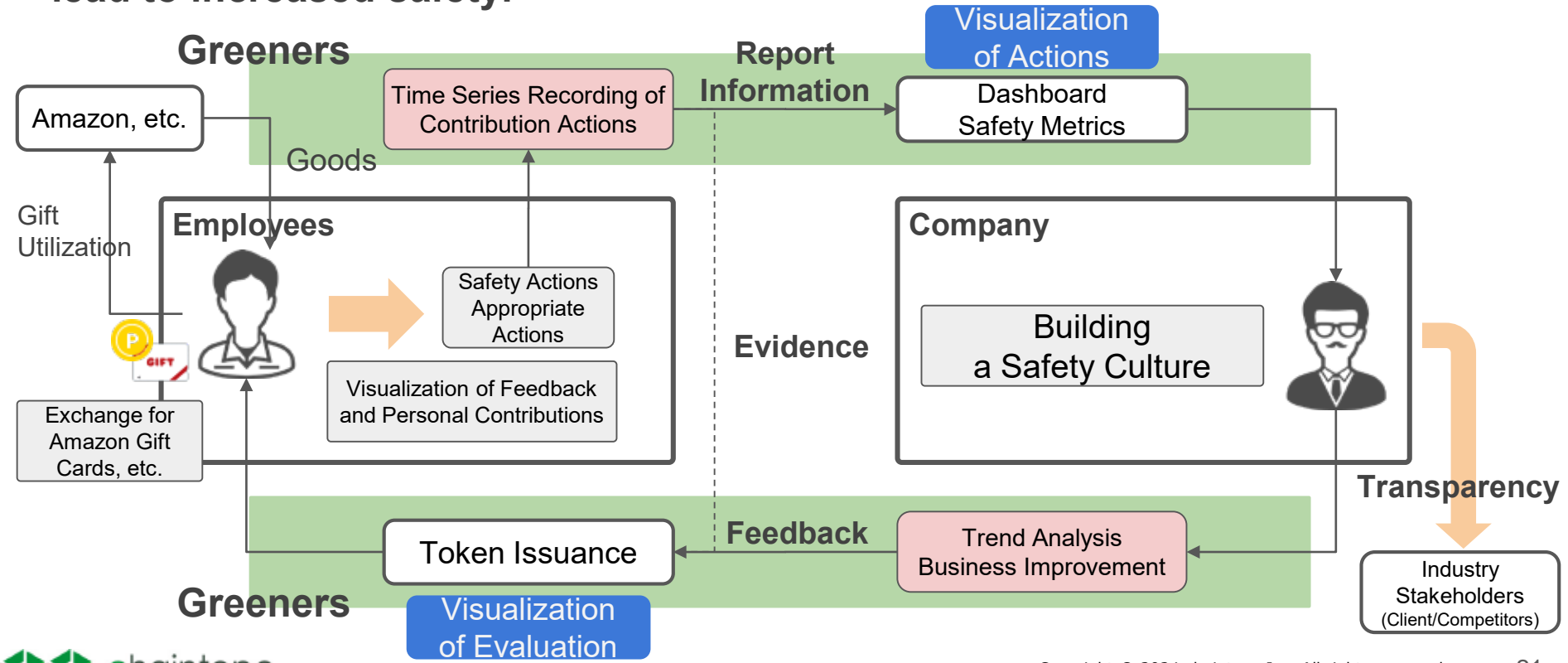
Issues Addressed:

- Cultural heritage preservation.
- Human resource development.
- Building a sustainable society.

concrete example

Utilization for Safety Culture

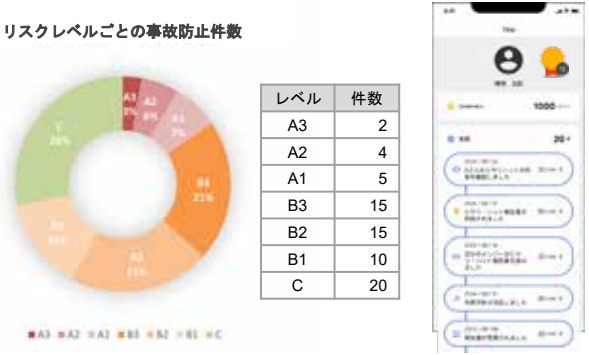
Companies conduct risk management, and as a result, individual activities lead to increased safety.



Case Example

Case Example of Evaluating Safety Contribution Actions

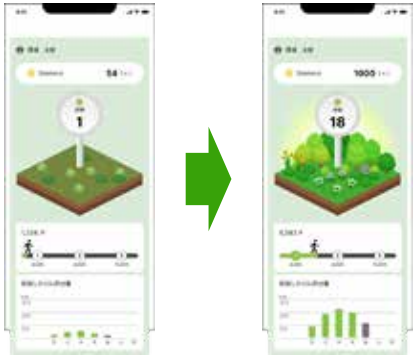
Adoption is being considered in industries such as shipping and construction.



レベル	件数
A3	2
A2	4
A1	5
B3	15
B2	15
B1	10
C	20

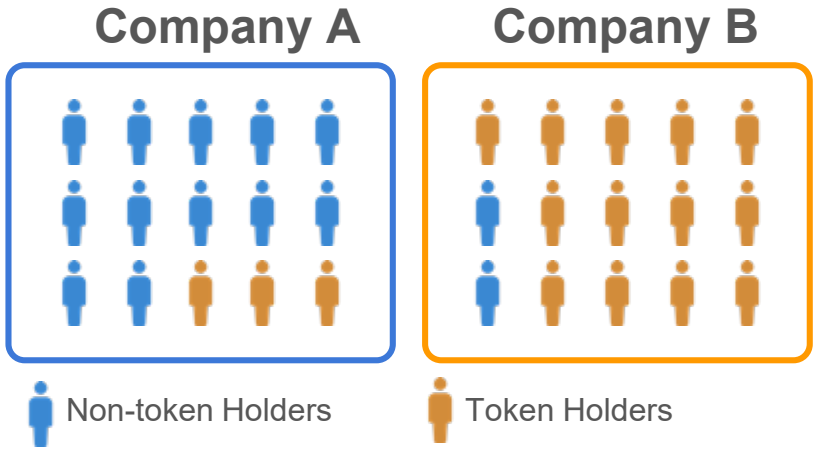
Case Example of Evaluating Health and Environmental Contribution Actions

The contribution to the environment is visualized through actions such as employees walking to work instead of using cars or public transportation.



The Society Greeners Aims to Achieve

The evaluation of individuals who contribute is visualized through tokens. The more individuals holding tokens, the more highly the company is regarded by society, leading to a society where individuals who contribute are rewarded.
A society where those who work diligently are recognized and valued.



- Company B is recognized by society
- Company B improves the treatment of token holders.
- Token holders from Company B are also favored by other companies (e.g., when transferring to Company A).