Subcommittee name : Utilization of wood and CLT with DX

Area : Large scale and Mid-to-high-rise building using wood and CLT

Content of effort : Reuse of CLT with Building Information Modeling (BIM) data

（Leadership organization)　　　　**TAKENAKA CORPORATION**

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　　　　　　　　　General Manager

*CLT : Cross Laminated Timber

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(1)　Goal

A target is the supply chain of wood and CLT not only at the primary use as well as at the time of reuse.

The use of wood and CLT as sustainable materials is being promoted in various buildings.
In this subcommittee, we will organize task in advance to meet future reuse needs and proceed with examination of necessary technologies and system.
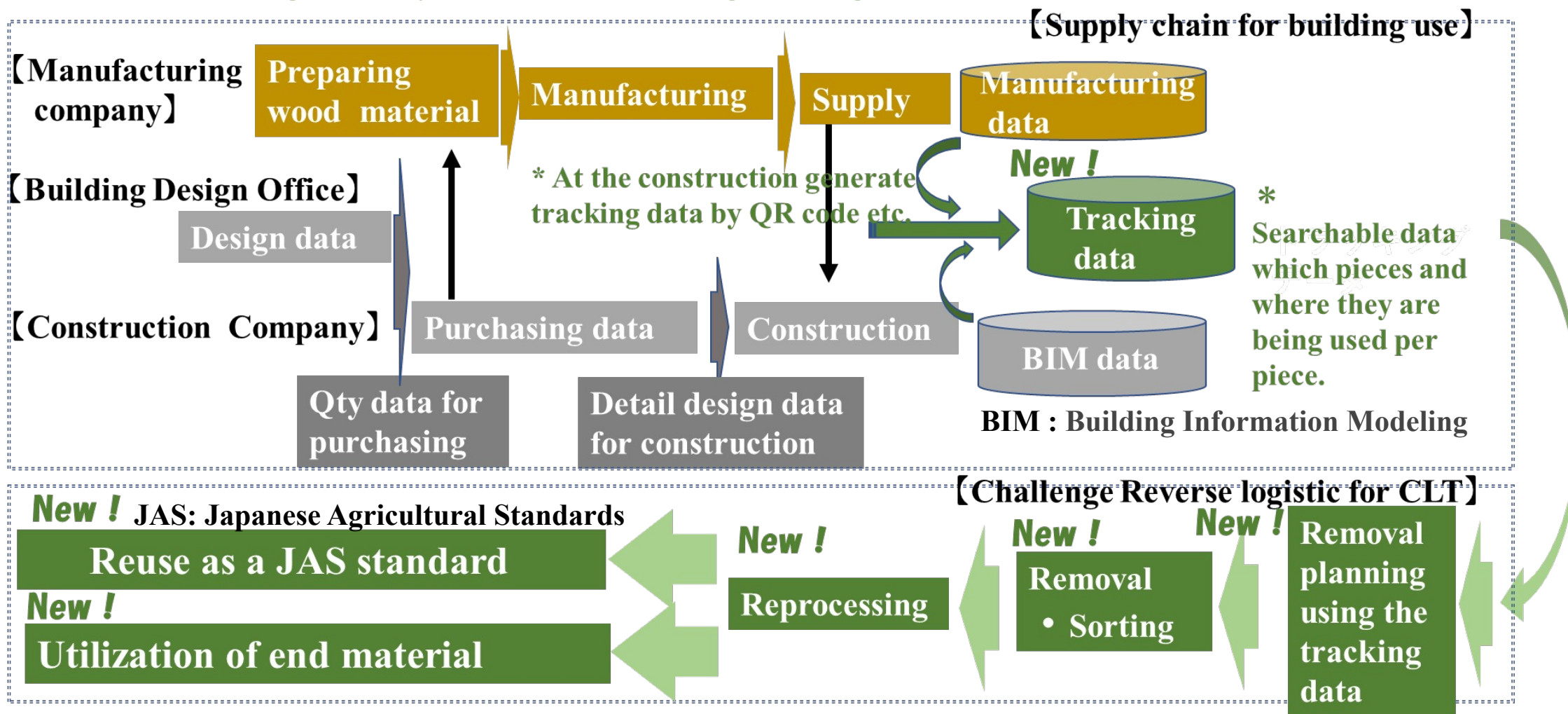

We will carry out activities with the first goal of being able to demonstrate new technologies and system for reuse at Expo2025 Osaka Kansai.

What is CLT ? -transcript from publication by Japan Cross Laminated Timber Association -
CLT(Cross Laminated Timber) is a wood-based material made by laminating and gluing together sawn boards so that the fibbers run perpendicular to each other. It is used for walls and floors of condominiums and commercial facilities, mainly in Europe and the United States, and is increasingly being uses in Japan as a construction material that is suitable for large wooden structures. In addition, the use of locally sourced materials for CTL manufacturing contributes to promote local industries and empower its communities, and hence, many local governments are now starting to employ. CLT is the ideal material for the theme of Expo 2025 Osaka, Kansai, "Designing Future Society for Our Lives." The buildings themselves are expected to attract attention as a symbolic expression of "a society where the Unites Nations' Sustainable Development Goals (SDGs) can be achieved successfully."

◇ **Maximize the value of reuse using Tracking data**

≪We challenge new system and technologies for green area as described below≫

【Supply chain for building use】

【Manufacturing company】

Preparing wood material

Manufacturing

Supply

Manufacturing data

New !

* At the construction generate tracking data by QR code etc.

【Building Design Office】

Design data

Tracking data

*
Searchable data which pieces and where they are being used per piece.

【Construction Company】

Purchasing data

Construction

BIM data

Qty data for purchasing

Detail design data for construction

BIM : Building Information Modeling

【Challenge Reverse logistic for CLT】

New ! JAS: Japanese Agricultural Standards

Reuse as a JAS standard

New !
Reprocessing

New !
Removal
• Sorting

New !
Removal planning using the tracking data

New !
Utilization of end material

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⑶ Time schedule and action plan

Item \ year	~2022	2023	2024	2025	2026~
Master schedule	Preparation	Design data infrastructure and utilization	Prior advanced field experiment ≪Data generation≫ ➡ ≪Create DB≫ ➡ ≪Utilization≫		Execution phase
		Planning new tecnoligies and system for reuse & SC	Develop new technologies and system for reuse & SC		
			Engage in standardization （DB, Platform, Utilization, Certification etc.)		

[Preceding project]

OSAKA, KANSAI, JAPAN EXPO 2025

- Research & planning
- Preparing system infrastructure
- Generate tracking data
- Publication in EXPO
- Dismantling Sorting
- Reprocessing Reuse
- Planning for dismantling and sorting
- Plannimg for reprocessing and reuse

Development Standardization

- Planning
- Action

Publication

◆ Kick off event

◆ Annual event Issue annual report

◆ Annual event Issue annual report

Publication in EXPO

◆ Annual event Issue annual report

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4