CLT in Japan

JAPAN CLT ASSOCIATION

M	Year	Industry	Government
	2011	Research Starts	
1	2012	JCLTA Established	
2		3-Storey Table Shake Test	
12	2013		JAS(Japanese Agricultural Standard)
3	2014	**First CLT Building "Dormitory of Kochi Otoyo Sawmill"**	
4		Establishment of JCLTA	
6		First JAS Approved Factory	
11			Roadmap for the Dissemination of CLT
2	2015	 **5-Storey Shake Table Test**	
3/4	2016		Notification of Standard Design Method / Design strength Values established for CLT
1	2017		NEW Roadmap for Promotion of CLT

New Roadmap for the promotion and utilization of CLT in Japan (Abstract)

JAPAN CLT ASSOCIATION

(Released by CLT Conference for Concerned Government Agencies, Jan. 2017)

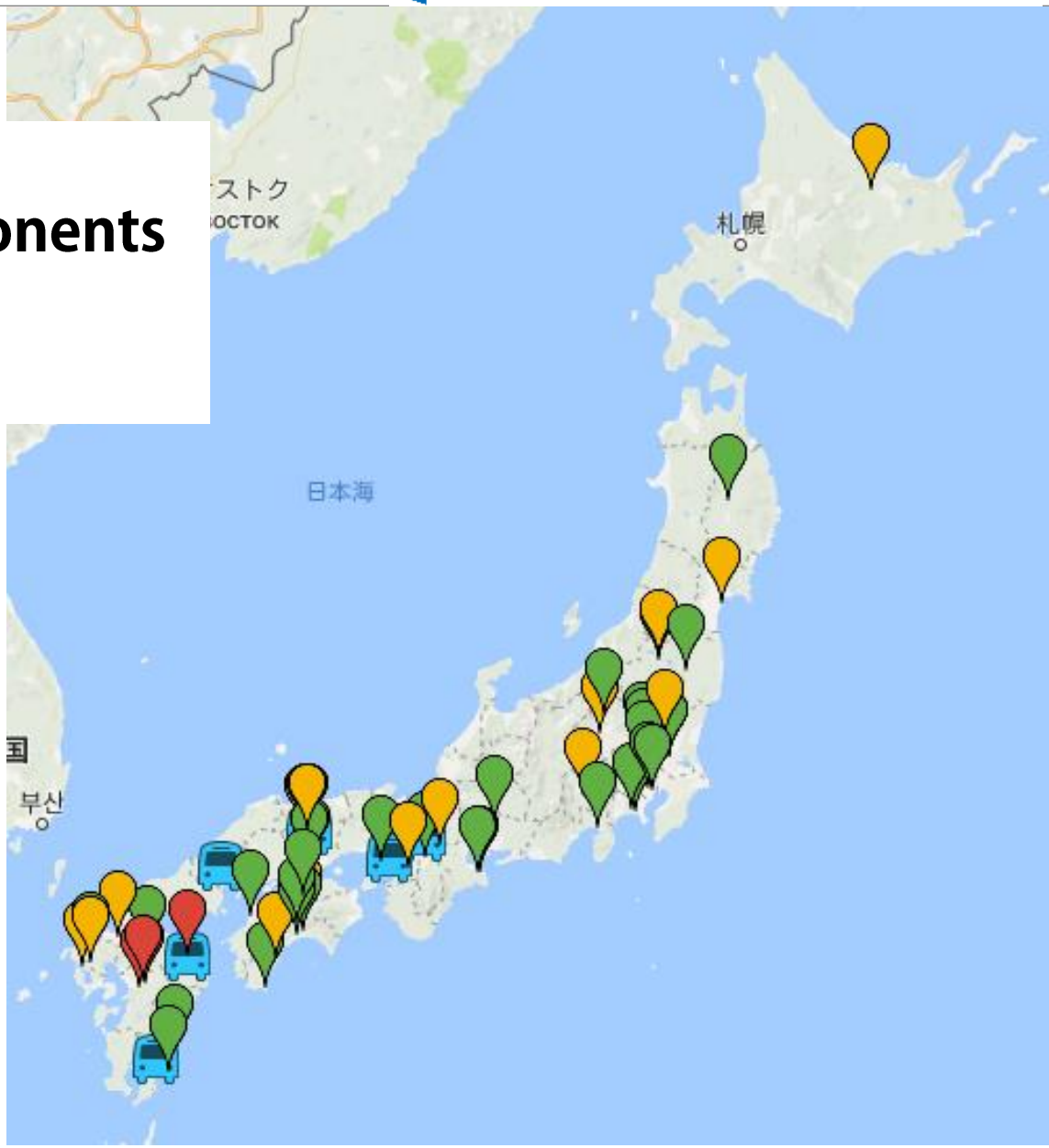
TARGET	2017	2018	2019	2020	VISION
To enhance motivation in using CLT	Support for innovative architecture, test house, buildings, performance verification, etc.				CLT gains popularity and gets established.
	Create system for promoting and honoring innovative architecture and products.		Continue		
Increase the number of designers and architects	Hold series of lectures and workshop to train designers who build mid / large scale construction with wood.				CLT is used effectively with other materials.
	Information gathering for efficient design. >>> Reflect national building and repairing standard.				
	Organize materials necessary for design and estimation. >>> Study and creation of design / estimation tools.		Renewal and supplement.		
Make CLT easy to use	Technological development for fire proof approval.		Hold series of lectures.		The advent of mid-high rise timber buildings.
	Collection of data related to strength. Obtain additional notifications.		Continue		
Reduce production and construction cost By FY2024, the total CLT production capacity will be increased to 500,000 m3/year. Price of CLT to become about 70,000-80,000 JPY/m3 and construction to be in line with other construction.	Construction of factories. Production Capacity 2016: 50,000m^3 >>> 2017:60,000m^3 >>> 2020:100,000m^3				Promotion of CLT like EU / NA countries.
	Collection of data related ease of installation and versatile size panels.		Study and work towards standardization.		
	Active use in public buildings, etc.				

Building Project

JAPAN CLT ASSOCIATION

CLT Buildings

- CLT Structure
- Uses some CLT components
- Temporary Buildings
- Bus Stop



- Approximately 100 buildings have already been built.
- Another 100 have started.

CLT協会HPのCLTマップにて随時更新中　http://clta.jp/clt-map/　　Googleマップより作成

Building Project

JAPAN CLT ASSOCIATION

Clinic and house (Kanagawa)

Completion	May 2015
Total floor space	122.34m^2
Used CLT	7.77m^3
Portion using CLT	Floor (2F)
CLT Size	Thickness: 150mm
Structure	Post & Beam
Type of Building	Clinic
Location	Kanagawa Prefecture
Design	Tomoya Nabeno Architect
Construction	Hiro Kensetsu
Feature	2.15m cantilever floor

House in Iruma（Saitama）

Completion	February 2017
Total floor space	122.34m^2
Used CLT	14.9m^3
Portion using CLT	Floor (2F), Wall (Roof)
CLT Size	Thickness: 90mm
Structure	Post & Beam+ CLTPanel
Type of Building	House
Location	Saitama Prefecture
Design	Aoyagi Design / HFStructural Design
Construction	Double Box
Feature	Tall attic place using CLT

写真撮影：太田拓実

Building Project

JAPAN CLT ASSOCIATION

CoCo CLT (Tsukuba CLT Test House) (Ibaraki)

写真撮影：㈱ナカサアンドパートナーズ

Completion	March 2016
Total floor space	166.0m^2
Used CLT	94.14m^3
Portion using CLT	Floor, Wall, Roof
CLT Size	Thickness: 90 / 150mm (Wall), 210mm (Floor), 150mm (Roof)
Structure	CLT panel structure
Type of Building	Test house (Detached house)
Location	Ibaraki Prefecture
Design	Keita Aoshima / Okamoto Architectural Design Office
Construction	Kimura Kenzo
Feature	3m cantilever floor / 6m CLT panel exposed wall

Building Project

JAPAN CLT ASSOCIATION

CoCo CLT (Tsukuba CLT Test House) (Ibaraki)

写真撮影：㈱ナカサアンドパートナーズ

Building Project

日本CLT協会

Ki Terrace（Okayama）

Completion	March 2017
Total floor space	69.8m^2
Used CLT	51.9m^3
Portion using CLT	Wall, Roof
CLT Size	Thickness: 60/ 120/ 150/ 180mm
Structure	CLT Panel Structure
Type of Building	Toilet
Location	Okayama Prefecture
Design	Ofa / Torisha
Construction	Matsuoka Kensetsu
Feature	

写真撮影：Ofa

Building Project

JAPAN CLT ASSOCIATION

Hotel of Huis Ten Bosch (Nagasaki)

写真提供：ハウステンボス㈱

Completion	February 2016
Total floor space	2049.7m^2
Used CLT	570m^3
Portion using CLT	Floor, Wall
CLT Size	Thickness: 150mm for Walls, 180mm for Floors
Structure	CLT panel structure (one-off approval by MLIT)
Type of Building	Hotel
Location	Nagasaki Prefecture
Design	Kajima Design
Construction	Kajima / Sumitomo Forestry(CLT Part)
Feature	Using local wood (sugi from Nagasaki prefecture and vicinity)

Building Project

JAPAN CLT ASSOCIATION

Kochi Forestry Union Hall (Kochi)

Completion	March 2016
Total floor space	1209.73m^2
Used CLT	315.90m^3
Portion using CLT	Floor, Wall, Roof
CLT Size	Thickness: 150 / 180mm
Structure	Post & Beam
Type of Building	Office
Location	Kochi Prefecture
Design	Futsuu Gohan
Construction	Kishinoue Komuten
Feature	Post & Beam + CLT / Quasi Fire Proof Exposed CLT Wall

写真撮影：ふつう合板

Building Project

JAPAN CLT ASSOCIATION

Kochi Forestry Union Hall (Kochi)

Building Project

JAPAN CLT ASSOCIATION

Probono Walfare Building (Nara)

Completion	July 2016
Total floor space	971.54m^2
Used CLT	137.84m^3
Portion using CLT	Wall (2-5F)
CLT Size	Thickness: 150 (Wall) / 180mm (Floor)
Structure	1F: RC, 2-5F: Timber structure
Type of Building	Welfare facility for the disabled people
Location	Nara Prefecture
Design	Asada Design Office
Construction	Ohyamato Shokusan
Feature	1 hour fire proof structure

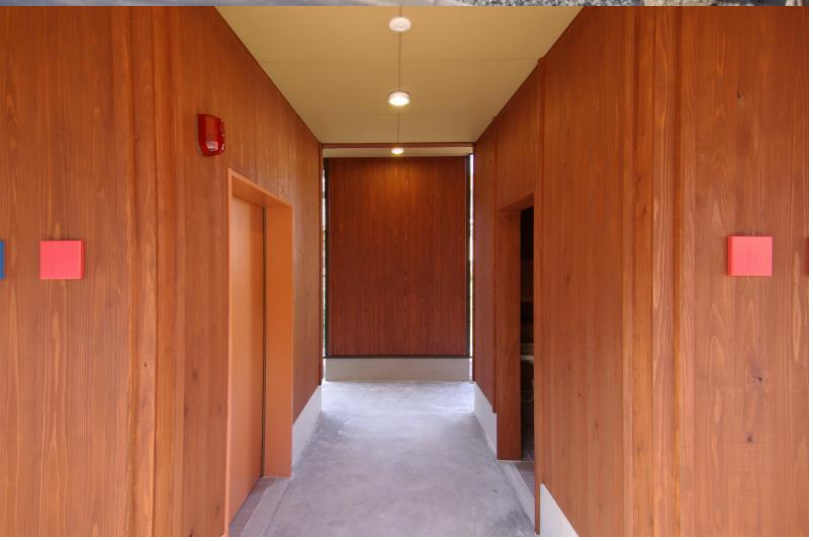
写真撮影:プライズ　山崎浩治

Haruna Shrine Repository

写真：小見山陽介（エムロード環境造形研究所）

Completion	February 2017
Total floor space	99.37m^2
Used CLT	41.85m^3
Portion using CLT	Wall, Roof
CLT Size	Thickness: 90 (Wall) / 150mm (Roof)
Structure	CLT panel Structure
Type of Building	Repository
Location	Gunma Prefecture
Design	Emeraude Architectural Laboratory
Construction	Hara Komuten
Feature	Exposed Sugi CLT inside

Toilet in Ueno Village



Completion	April 2017
Total floor space	53.92m^2
Used CLT	3.99m^3
Portion using CLT	Wall
CLT Size	36 x 1,000 x 3,000 mm
Structure	Post & Beam
Type of Building	Toilet
Location	Gunma Prefecture
Design	Emeraude Architectural Laboratory
Construction	Tsukamoto Kensetsu
Feature	Using 36mm CLT

写真：小見山陽介（エムロード環境造形研究所）

Matsuo Construction Office (Saga)

パース（上）：松尾建設、写真（下）：小見山陽介（エムロード環境造形研究所）

Completion	Mar 2018
Total floor space	3,657.70m^2
Used CLT	295.5m^3
Portion using CLT	Floor(2-5F)
CLT Size	Thickness: 210 (Wall) / 180mm (Floor)
Structure	Steel structure
Type of Building	Office
Location	Saga Prefecture
Design	Emeraude Architectural Laboratory / Infomedia
Construction	Matsuo Construction
Feature	2 hour fire proof structure floor