Mass Timber Construction Market — Market Research

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INTRODUCTION

Embark on a journey through the dynamic world of Timber Houses and Datacenters with Setronica's comprehensive market study. This PDF provides deep insights into the market, covering regulatory landscapes, M&A activities, competitor analysis, and the growth potential of modular construction across diverse regions.

Whether you're in construction, tech, or investing, this report, crafted by Setronica, offers valuable perspectives. Download the PDF to unravel the intricacies of sustainable data centers, innovative modular housing, and the evolving trends that define this industry.

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MARKET ANALYSIS

According to Allied Market Research the global mass timber construction market was valued at $857.1 million in 2021, and is projected to reach $1.5 billion by 2031, growing at a compound annual growth rate (CAGR) of 6% from 2022 to 2031.

According to Fact.MR the global timber frames market is set to enjoy a valuation of $487.3 Million in 2022 and further expand at a CAGR of 7.1% to reach $973.3 million by the end of 2032.

The European Commission develops a comprehensive roadmap to reduce the whole-life carbon of the building sector by 2050.

Currently wood products are still only a less than 3% of market share of building materials in Europe that largely remain dominated by energy intensive and currently fossil fuel-based materials.

Europe aims to reach 55% emission reduction by 2030. Greenhouse gas emissions and removals by forests and forest products will play a crucial role in reaching the ambitious net removal target for the Union of -310 million tonnes of carbon dioxide-equivalents, as set out in the proposal for a revised Regulation on Land Use, Land Use Change and Forestry.

Considering the above we can forecast outstanding growth potential for timber modular houses in Europe.

‘Grow Your Own Data Center’

In 2019, colocation provider EcoDataCenter opened one of the world’s most sustainable data centers, EcoDataCenter1 in Sweden. In addition to running on 100% wind and hydropower, the data center is constructed primarily out of wood – or, more specifically, cross-laminated timber (CLT).

The fire-resistant capabilities of timber data centers were enhanced by encapsulation of the structure. This method aligns with established safety standards, such as Eurocode 5, and is recognized as an acceptable practice in

building codes. This approach provides for minimal contribution of the structural components to the fire risk, meeting stringent fire rating requirements (e.g., EI60, EI90, EI120). Source.

In the US alone, demand for data centers is forecast to grow by 10% a year until 2030.

Vertiv TimberMod modular data center

- Data Center building footprint reduction up to **30%**
- Up to **40%** quicker construction time than a traditional build.
- Quick deployment with minimal on-site work.
- **500+** pieces delivered to date
- Scalability, Standardized building blocks
- Minimal design effort required.
- **500MW** of IT load supported
- Up to **20%** reduce in energy consumption with solar panel system
- Remote monitoring

Regulatory restrictions

Cross-Laminated Timber (CLT) manufactured in North America must be certified to the **ANSI/APA PRG 320** standard.

CLT manufactured in Europe must be certified to the **EN 16351:2021, Eurocode 5, EI60, EI90, EI120** standards.

M&A activities

In 2019-2023, there were no significant merger and acquisition (M&A) activities in the timber market because of the impact of the COVID-19 pandemic on demand.

TABLE OF COMPETITORS COMPARISON

Competitor	Niche
Vertiv TimberMod	Modular Scalable Datacenter
EcoDataCenter 2	Ecologically-friendly Datacenter
Microsoft	Campus in Silicon Valley made of CLT
Skyline Champion American Homestar Southland Log Homes Fertighaus Weiss American Modular Systems	Prefab wood buildings
Method Homes Wheelhaus FabCab Ideabox Clayton Homes	Modular homes
Daiwa House Industry Sekisui House Asahi Kasei Corporation Skanska AB Peab AB	Timber construction frames

MODULAR CONSTRUCTION GROWTH POTENTIAL

According to StraitsResearch, the growing number of people living in cities in emerging markets like **India**, **Japan**, **Indonesia**, **Nigeria**, **Mexico**, and **China** is likely to increase spending on infrastructures like homes and businesses.

Modular construction is becoming more popular because it has many benefits, such as better structural stability, faster and better construction, more flexibility, less waste, and less need for labor.

The global modular construction market share is primarily divided into three regions, namely – North America, Europe, and Asia-Pacific.

Out of these three regions, the Asia-Pacific region is the most dominant and owes the major market share among the other regions.

Asia-Pacific

Asia-Pacific is the most dominant and leading region among the three regions, which had a market value of **$67 billion** in **2021** and is going to reach **$139 billion** by **2030** at a **CAGR** of **8%**. Asia-Pacific is one of the most fast-paced developing regions. With the presence of major emerging economies like India and China, it does have a major market share in nearly every industrial segment out there.

North America

North America being a developed region and having the presence of superpowers like the U.S. and Canada, owes a significant share of the global modular construction market that stood at **$28 billion** in **2021** and grew at a rapid pace to **$53 billion** by **2030** at a **CAGR** of **7%.**

Europe

Europe is the second dominant region in terms of market value for the said market, which stands at **$33 billion** in **2021** and is expected to reach **$49 billion** by **2030** at a **CAGR** of **6%**. Europe is known as the industrial hub of the world, which is why it has a significant market share in every industrial segment, including the modular construction market.

MODULAR CONSTRUCTION ENTRY BARRIERS

Market growth is limited by 2 major limitations:

Lack of Reliability in Earthquake-prone Areas

Due to the lightweight module units and how they are put together, modular structures can fail in ways that are not good during earthquakes. Due to the precast frame panels, the modular construction structures cannot stand up to a big earthquake. Also, roofs and walls made of light wood or metal can bend and deform in an earthquake because they are not as rigid as they used to be. So, modular construction is less common in places where there are a lot of earthquakes. The growth of the market is slowed down by the fact that people are afraid of modular construction technology.

Lack of Skilled Labor

Apart from this, the growth of the market is mostly held back by the lack of skilled workers and Infrastructure. When the weather is not clean, it is not possible for construction companies to move modular parts over long distances. Depending on the shipper, where the job is, and where the modular construction plant is, this can cause shipping costs to go up. So, the

market is being held back in a big way by growing worries about moving and handling modules.

Also, **logistics** can be a big problem in some situations. In the case of a large project to build a distribution center, this is likely to be a big problem for the use of modular parts. Also, modular construction is not practical for smaller commercial projects in these areas, which makes it more expensive to build because of how unique it is. Both these limitations are proving to be major barriers to the overall growth of the modular construction market.

CONCLUSION

In conclusion, Setronica's research sheds light on the dynamic and promising landscape of Timber Houses and Datacenters. The fusion of sustainable construction practices with cutting-edge technology presents a compelling narrative for stakeholders across various industries.

Web version

ABOUT SETRONICA

We take pride in our expertise in creating and delivering outstanding software products. We can help you clearly define your ideas and then develop them in the most effective and appropriate manner, using the most suitable technology.

Having outstanding ideas and concepts is essential, but they are meaningless if they can't be implemented. With our team's expertise and enthusiasm, we can make sure that your ideas become reality.

Our teams are developing software solutions for companies such as Tradeshift, WOWcher, RealPage, Marks and Spencer, Amazon.com, LaRedoute, Lifetime Brands, BeachCamera, Borderlinx, eSupplySystems, Mydeco, Butterfly Photo, Sensis Pty Limited, Intershop, PLUS Warenhandelsgesellschaft, Time-Life, Zabar's, Action Village, CBS Sportsline, Bertelsmann SE & Co, Niman Ranch, FLAX art & design, Four Seasons General Merchandise (4sgm), Tesco, Ixtens, Merchantry, SysIQ and and others.

We are available to address any questions and provide support throughout the process. We appreciate your consideration and eagerly await your response to commence this exciting project.

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