CROSS-LAMINATED TIMBER
AN OVERVIEW

Presentation Outline

1. What is CLT?
   - Composition
   - Size Availability

2. CLT, X-LAM, Massive Timber, BSP

3. Related Products
   - Fastened with:
     - Wooden dowels (Thoma Holz, Appenzellerholz, etc.)
     - Nails (MHM)

4. History
   - Initial Development
   - Optimization
     - Austria (1996)
Manufacturing

Current

- Countries leading in the use of CLT
  - Austria, Germany, Switzerland, Sweden, Norway, United Kingdom

Product
Manufacturing
Applications
Connections
Advantages

Manufacturers

- K2H 74,000 m³
- STORHAUG CLT 100,000 m³
- ÖLBACH HMP 65,000 m³
- H3M 28,000 m³
- M3M 17,000 m³
- Schüller Holz 15,000 m³
- NORDIC 60,000 m³

Steps 1 and 2

Steps 3 and 4

Product
Manufacturing
Applications
Connections
Advantages
Advantages
Sustainable alternative solution to concrete and steel:

- Lightweight
- Strong
- Consistent
- Tolerances
- Easier for other trades

Advantages

- High strength
- Seismic Resistance
- Exceptional fire performance
- Great thermal properties
- Vapour/air barrier

Advantages

### Table 1: Span and height capabilities of mass timber structural materials in mid-rise buildings

<table>
<thead>
<tr>
<th>Material</th>
<th>Span capability</th>
<th>Height capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel</td>
<td>100 spans</td>
<td>120 spans</td>
</tr>
<tr>
<td>Concrete</td>
<td>100 spans</td>
<td>120 spans</td>
</tr>
<tr>
<td>Masonry</td>
<td>120 spans</td>
<td>120 spans</td>
</tr>
<tr>
<td>Engineered I-Jack</td>
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<td>Engineered I-Jack</td>
<td>120 spans</td>
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</tr>
</tbody>
</table>

Figure 2: Span and height capabilities of mass timber structural materials in mid-rise buildings

Reference: TRADA
Reference: FP Innovations
Reference: FP Innovations
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Potential

• Address code issues

• Maximize the advantages

• Benefit from versatility
THANK YOU

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