Why move to mass-engineered timber?

TONY ARNEL
Global Director of Sustainability
By 2050, it is expected our population will reach 9,600,000,000
## World Economic Forum global risks

### Top 5 Global Risks in Terms of Likelihood

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Risk</th>
<th>2nd Risk</th>
<th>3rd Risk</th>
<th>4th Risk</th>
<th>5th Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Breakdown of critical information infrastructure</td>
<td>Chronic disease in developed countries</td>
<td>Oil price shock</td>
<td>China economic hard landing</td>
<td>Asset price collapse</td>
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<tr>
<td>2008</td>
<td>Asset price collapse</td>
<td>Middle East instability</td>
<td>Failed and failing states</td>
<td>Oil and gas price spike</td>
<td>Chronic disease, developed world</td>
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<tr>
<td>2009</td>
<td>Asset price collapse</td>
<td>Slowing Chinese economy (&lt;6%)</td>
<td>Chronic disease</td>
<td>Global governance gaps</td>
<td>Retrenchment from globalization (emerging)</td>
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<tr>
<td>2010</td>
<td>Storms and cyclones</td>
<td>Slowing Chinese economy (&lt;6%)</td>
<td>Fiscal crises</td>
<td>Global governance gaps</td>
<td>Climate change</td>
</tr>
<tr>
<td>2011</td>
<td>Severe income disparity</td>
<td>Flooding</td>
<td>Biodiversity loss</td>
<td>Climate change</td>
<td>Water supply crises</td>
</tr>
<tr>
<td>2012</td>
<td>Severe income disparity</td>
<td>Chronic fiscal imbalances</td>
<td>Cyber attacks</td>
<td>Water supply crises</td>
<td>Mismanagement of population ageing</td>
</tr>
<tr>
<td>2013</td>
<td>Severe income disparity</td>
<td>Chronic fiscal imbalances</td>
<td>Rising greenhouse gas emissions</td>
<td>Climate change</td>
<td>Cyber attacks</td>
</tr>
<tr>
<td>2014</td>
<td>Income disparity</td>
<td>Extreme weather events</td>
<td>Rising greenhouse gas emissions</td>
<td>State collapse or crisis</td>
<td>High structural unemployment or underemployment</td>
</tr>
<tr>
<td>2015</td>
<td>Interstate conflict with regional consequences</td>
<td>Extreme weather events</td>
<td>Unemployment and underemployment</td>
<td>Failure of national governance</td>
<td></td>
</tr>
</tbody>
</table>
Green building is a growing movement

Motivations for building green are changing...

Source: McGraw-Hill
23% of Australia’s office space is Green Star certified
AUSTRALIA:
GRESB global green leader
TIMBER provides sustainable local solutions to global challenges
Lightweight, strong and durable
Resource-conserving and resilient

30% lighter than concrete
Modular marvel
Energy and emissions efficient

50% dry weight of carbon
Waste-saving wonder
Forté Melbourne, Australia
Stadhaus
London, UK
Metropol Parasol
Seville, Spain
Nelson Marlborough Institute of Technology
Nelson, New Zealand
Arena Stage
Washington DC, USA
385 billion cubic metres in forests
17 billion growing
3.4 billion harvested annually
“If the 19th century was the century of steel and the 20th century of concrete, then the 21st century is about engineered timber.”

Professor Alex de Rijke
THANK YOU