

Thursday 16th September 2021 | Online

## MASS TIMBER KNOWLEDGE EXCHANGE GERMAN AND UK PERSPECTIVES

**ASBP** The Alliance  
for Sustainable  
Building Products

 **natureplus.org**  
natural sustainable building

**Laudes** ———  
— Foundation

### Q&A transcript

Simon Inkson 13:16

James do you not think we in the UK also need to focus on the supply side - we haven't planted sufficient trees in the UK for many decades

This question has been answered live

Ian McHugh 14:33

Dom - does the insurance world look at risks to buildings from changing climate eg. in 30 years+ time - overheating, flooding, wind damage etc using climatic projections? And if so how does timber construction compare?

Reinhard 14:36

I'm not an expert in this field, but I think insurance companies only calculate with damages from the past and take it in their risks.

Seb Laan Lomas 14:40

I'd be interested to understand more holistically if the insurance market is compatible with a future that doesn't align with the 1.5oC decarbonisation pathway, or whether insurance as we know it fails with the earth's tipping points?

Dominic Lion 14:48

Thanks Ian. They do to the extent that they use modelling software to look at the likelihood of a natural disaster (wind, flood, earthquake etc.) damaging a particular building as part of their overall analysis of the risk. How these models approach climate change I am afraid I do not know. You would assume their projections of these types of events and the likelihood of them happening are simply increasing. I do know anecdotally that insurers like timber in high risk earthquake locations as timber performs well in absorbing the impact of a quake. That is as much as I know I am afraid.

Seb - The CEO of Aviva came out recently as said if we dont hit our climate targets there wont be an insurance industry as things will become uninsurable/uneconomical to do so. So at a senior level they are waking up to the issue, but it hasnt filtered through to their underwriting strategy/appetite yet.

Mark Devereux 13:27

In the context of cradle to cradle principles, how do you deal with adhesives used in mass timbr (eg. CLT) when it comes to deconstruction/reuse.

Jeroen Meissner 13:57

two proposals:

1. use timber products without glue in the beginning
2. reuse the CLT element in another building

Mark Devereux 13:55

What is the difference in the cost of construction insurance in Germany for a mass timber building relative to a similar concrete building?

Reinhard is typing an answer...

Jeroen Meissner 14:01

do you mean for the client? So far I don't think there is a difference, since the timber building needs to comply with fire protection laws.

Reinhard 14:06

Normally fire insurance firms in Germany are in a hard competition, so its up to the customer to get a good price from a good company. In general we do not see so much impact of the kind of construction in insurance cost and as far as I discussed it with insurance experts in Germany, they are still calculation. In Switzerland, where they have more experience with wood construction and fire insurance is from a monopoly state company (VKF), there is no impact in costs of insurance. When we spoke to VKF, they were totally positiv for wood construction.

Mark Devereux 14:21

That's really interesting - in Canada, insurance companies have trouble dealing with mass timber so the costs can be 5x that for a concrete building. I would be grateful to get some names to speak to from the insurance sector in Germany to see if we can get some good data from them (to help educate our local insurers).

Reinhard 14:24

you can contact Mr. Mingyi Wang (m.wang@gdv.de) which i a high known expert from the society of German insurances. Give him some greetings.

Mark Devereux 14:30

Thank you, Reinhard!

Fernando (SaW) 14:20

Very enlightening presentation Jan. With all these funding available as mentioned by Jan and James and being fire one of the largest design challenges in UK mass timber construction: is there any funding available for a research project to design, build and fire test fire a full scale medium rise timber building? Leaving it to individual private tests the development of information on fire and mass timber is not going to help the spread of use of mass timber construction.

Jeroen Meissner 14:42

Probably the UK can also benefit from the research in Germany and Austria by adopting and translating the existing knowledge.

Fernando (SaW) 14:52

Good point Jeroen. I was also thinking of the full scale test for EU not only the UK. Similar to what the several seismic research projects did in the last decade. Is the German and Austrian full scale fire research that much ahead of the UK one in terms of mass timber construction? I would really be glad to hear some references.

Simon Inkson 14:31

Be interested to know whether the guys in Germany experience similar problems with construction and property insurance to those being experienced in the UK at present

Jeroen Meissner 14:39

So far we haven't had any problems with insurance. our large projects range in size from approx. 12,000 to 19,000 m<sup>2</sup>. Usually the clients are dealing with the insurances in Germany. Until now we didn't face this problem.

James Souter 14:42

Are the residential projects built to previous guidance safe to live in now that our understanding has moved on, do those buildings need to be revisited?

Jeroen Meissner 14:47

Do you mean in terms of fire safety? I would say it is important to always check old building in terms of how much they still comply with our current safety standard. But we need also take into account that our safety standards from today are very high.

James Souter 14:49

Yes, specifically with regards to fire. It is really a question about risk to a client....

Fernando (SaW) 14:18

Mr Eberl-Pacan, in Germany, do you have to prove by testing/calculation the self extinction of a fire compartment with exposed timber surfaces? If no, why not?

Reinhard 14:32

in Germany the requirements for facades in higher buildings (from GK 4) is "schwerentflammbar" (B1 or something like C s1 d0). Wood could not comply with this

requirements, but we do steel fire barriers in the wood facades to compensate this and make wooden facades as safe as normal facades.

Fernando (SaW) 14:55

Thank you for your response Reinhard. What about the internal structure when is left exposed to fight directly against the potential fire?

Jonathan Irawan 14:18

Have any of you encountered any decay/rotting in high humidity environments? Are there any regulations around protective elements to combat against it?

Jeroen Meissner 14:28

we should always design timber construction in a way that no humidity is being collected inside the construction and details. If humidity can dry out we wouldn't have a problem. Instead, timber can help a lot to improve a lot the interior air quality.

Mark Devereux 14:36

For Dominic - would be great to connect to see if we could get some UK input into MT insurance and perhaps connect with the insurer who's trying to lead the way over there. Our insurers (Canada) are well behind in understanding MT.

Dominic Lion 14:51

Thanks Mark - and sure thing. Please feel free to drop me a note separately at dominic\_lion@ajg.com and I would be happy to chat further, and connect you with my colleague Jake based in California who is leading the MT charge in the US, so I am sure would be keen to talk further.

Mark Devereux 15:03

Thanks Dominic - will do!

Ian McHugh 15:06

Could these Q&As be shared too? Some good points here

Sarah 15:10

Dom - How long do you think the insurance market will take to reduce the costs of insuring CLT resi blocks? A change to part B?

Dominic Lion 15:15

I wish I knew the answer! Ironically Part B isn't necessarily an insurers concern - although clearly they wont offer insurance on something that isn't signed off by building regs. I think there are a number of factors - 1) Insurance market cycle softening generally  
2) Better understanding/evidence of the fire performance of high rise resi from a probable maximum loss/cost of claim scenario and/or the cost of repair.  
But a tough question I am afraid, I wish I knew...