

## Insulating with Wood: Summary of events held in Bangor and Swansea

**Bangor:** 12 March 2019: 25 Delegates. Speakers, Richard Broad (ASBP), Andrew Mitchell (NBT), Jasper Meade (PYC Construction), Arwyn Evans (Pennaf Housing)

**Swansea:** 3 April 2019: 45 Delegates, Speakers, Neil Turner (Ecological Building Systems), George Mikurick (Architype), Andrew Mitchell (NBT)



*Neil Turner (Ecological Building Systems) presenting to delegates in Swansea*

### Key points from both events

Presentations from the key speakers are available on the resources page of the Woodknowledge Wales [here](#). The events were organised by Woodknowledge Wales as part of the Home-Grown Homes Project and were supported by the Natural Fibre Insulation Group (NFIG). NFIG is made up of ASBP (Alliance for Sustainable Building Products) members who have come together with the aim of communicating the benefits of natural insulation products and systems.

**NATURAL FIBRE INSULATION GROUP**

A group of ASBP members have come together to establish the Natural Fibre Insulation Group

Through collaborative actions we aim to better communicate the benefits of natural insulation products and systems

Want to get involved?

CONTACT US

Have a query about natural fibre insulation?

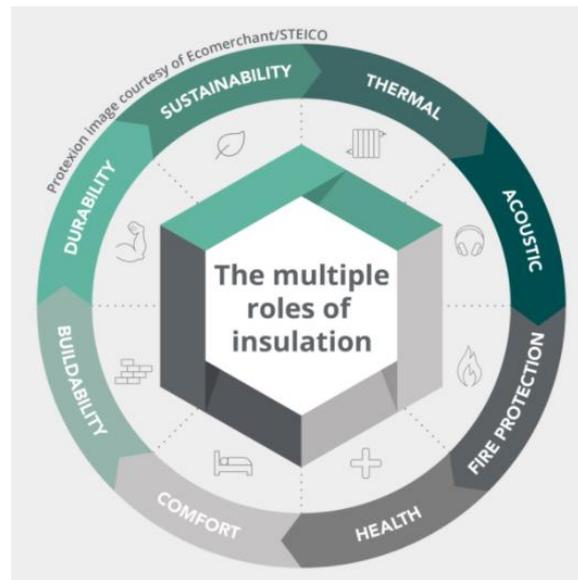
ASK AN EXPERT

*Companies that make up NFIG. Back to Earth, Ecological, Ecomerchant, Lime Green, NBT, School of Natural Building, Steico, Thermafleece, UK Hempcrete and Wood for Good.*

Insulation isn't just about keeping a building warm. Natural fibre insulations are particularly good at performing multiple roles.

NFIG have adopted the multiple roles of insulation infographic to champion the benefits of using natural insulation products. Speakers at the two events described how wood fibre insulation performs in the areas of:

Thermal | Acoustic | Fire protection | Health  
Comfort | Buildability | Durability | Sustainability



## Specific questions and highlights arising during the events

### Health – is there any evidence to support claims that wood fibre insulation is healthier?

Gary Newman responded that this is a very difficult subject area to discuss in a public forum because of the potential to be sued.



1. Window reveal showing black mould caused by condensation on cold surface

However Andrew Mitchel gave a very good presentation around building physics exploring health and well-being aspects of performance. In terms of human health the optimum RH is around 50%. This humidity corresponds with the least favourable conditions for growth of things like mould and dust mites. The use of breathable hygroscopic insulations can support a robust ventilation strategy to maintain RH close to 50%. [See Andrew Mitchell's presentation for further information [here](#)]

Black mould – indicates condensation problems in a building, this is because mould only likes to grow in water. Condensation can be controlled by a number of different methods including appropriate choice and installation of insulation products.

The Alliance for Sustainable Building Products (ASBP) organises an annual conference on health and wellbeing called Healthy Buildings. Further information can be found on their [website](#)

### Social housing provider Pennaf shared some of their experiences.

- They have experienced mould problems in brand new homes of masonry construction just months after completion.
- At 12 month feedback reviews they rarely have any negative feedback from timber frame builds

- There are some differences in acceptance of timber frame builds between North and South Wales with acceptance of timber frame being better further South

### **Fixtures and Fittings. What should I be using?**

Suppliers of insulation materials can help you work out the fixing pattern you should use depending on your build type and wind exposure. Jigs are available to ensure 60° angle is achieved on shear screw placement and pre-marking will ensure that you don't miss the stud when fixing thick insulation to a thin stud. Further help and advice is available from members of the Natural Fibre Insulation Group.

### **Disposal - what do I do with the offcuts? Can I compost them?**

This will depend on which product is being used, some of them are compostable, some of them are suitable for thermal energy generation. You will need to refer to the information on individual product data sheets.

*“PAVATEX insulation boards meet all environmental requirements, from manufacture to disposal.*

*That is why undamaged boards (e.g. PAVATHERM or ISOLAIR) can always be re-used. Otherwise, PAVATEX woodfibre boards can also be utilised for thermal energy generation.*

*For certain products, there is also the possibility of composting the boards. Information on composting or disposal can be found in the product data sheets.”*

### **Mice and rodents – will they eat the insulation?**

Mice will nest in any sort of insulation material – they do not necessarily use it as a food source as well – they will just nest in it. There is some evidence to suggest that they will actually choose glass fibre over wood fibre. Insulation should be protected to prevent mice and rodents gaining access – metal mesh can provide this barrier.

### **When will we see the manufacturing of wood fibre insulation in the UK?**

Currently wood fibre insulation has less than 1% of the total insulation market. This would probably need to increase to 5% before a manufacturer would consider investing in the UK. Transport represents approximately 40% of the cost of flexible wood fibre insulation at present so building a plant in the UK would reduce costs to customers and reduce transport related emissions.

### **Can we afford to pay for this level of quality? Quality over Quantity / Ethics over Aesthetics**

There was an interesting discussion in Swansea on quality of housing. Whilst in the past the focus has been on the quantity of houses built there was a belief in the room that the pendulum is now starting to swing towards quality (especially in the residential construction sector). One reason for the need to focus on quality and on attention to detail is the energy performance gap which needs to be addressed if we are to meet low carbon standards.

The role of architects in material specification was drawn into question and George Mikurick (Architype) drew attention to an article by Christine Murry “[It’s time for architects to choose ethics over aesthetic](#)”.

### **What happens next?**

During the Home-Grown Homes Project, Woodknowledge Wales and delivery partners BM TRADA, Cardiff Metropolitan University and Coed Cymru are supporting a number of different build projects, some of which will use wood-based insulations. Information will be gathered to help inform the development of a procurement tool for wood fibre insulation. A third knowledge event on insulating with wood will be organised towards the end of 2019 which will coincide with a site visit where wood fibre insulation is being installed. If you would like to know more please keep visiting our website, sign up for our newsletters, follow us on social media (@WKWales) or just call David Hedges on 07989 345140.