TALKING TIMBER

INNOVATION IMPERATIVES

There has never been a better time to be involved in research for the further development of wood, says ***Graham Ormondroyd***

Graham Ormondroyd is chair of the WTS and head of materials at Bangor University

About 15 years ago my career as a wood scientist was nearly over before it started. I was told at a conference, by the head of a national research funding stream that he did not want to see anymore proposals about timber: it was not new; it was not novel; there certainly was no innovation to be done; it is a sunset material. This nearly broke me, to be told that the area that I had studied, and now was supporting a research team in, had no future nearly led me to throwing in the towel and following so many of my forestry and wood science undergraduate colleagues into banking.

Well, spring forward to the present day and I am so glad that I didn't. It seems that timber is going to save the planet – building with timber and sequestering carbon into the long-term storage that the built environment can provide is one of the approaches being taken to achieve a carbon neutral Britain by 2050 and aid in the slowing of climate change, as was recently highlighted in a report by Bangor University commissioned by the Committee on Climate Change and now the fabulous Wood CO_2ts less campaign from Wood for Good.

Recently, I had the privilege of being conference chair at the IOM3's Timber 2020 *(see pp75-77)* and I was heartened to see, not only high quality papers from across the UK and beyond but also that the audience had grown considerably from previous years – the words I heard 15 years ago have consequently been ringing in my ears, '...a sunset material' 'no innovation to be done' leading to the inevitable question: 'Is this still the case?'.

For me, I feel that there has never been a more significant time for innovation – in both timber as a material and the industry – to take place, although the recognition of timber as a pillar in the fight against climate change comes as both a blessing and a curse. The recognition will lead to a greater demand for timber, from multiple sectors, and this demand will lead to higher prices, but will that timber be able to fulfil its role as long-term carbon storage in an environment which in itself is evolving through climate change?

A recent paper in the journal *Scientific Report* by my colleague Simon Curling brought together, for the first time, a model that predicts the likelihood of timber to decay due to climatic conditions and the UK government's predictions on climate change. The warmer days and increase in yearly rain events predicted owing to climate change lead to a greater chance of decay and ultimately the premature release of carbon back into the atmosphere. If we couple this with externalities such as the banning of some wood preservatives and the eroding of usable fire retardants it seems obvious that innovation and a knowledge of our material is essential to preventing the deterioration of buildings and ensuring their being fit for purpose for many years to come.

In answer to the inevitable question – looking beyond the negative impact of Covid-19 – there has never been a better time to be involved in research for the further development of wood. The UK government is currently funding research both for short term 'green recovery' and for the longer-term aspiration of Net Zero by 2050. The timber trade and industry can be instrumental in this by acknowledging their role and supporting research and innovation by working with the academic community, through the government backed funds, to make ideas a reality and wood enhanced to perform long into that sustainable future. ■

Below: The Wood Co_2ts less campaign highlights how using timber could mitigate climate change