

Mass Timber Event – 04/12/2019 Lighthouse, Glasgow

Output from discussions on home-grown mass timber systems

On the 4th of December 2019, Edinburgh Napier University together with Construction Scotland Innovation Centre and Architecture and Design Scotland organised a ‘Mass Timber Systems’ event which took place in Lighthouse, Glasgow. The purpose of the event was to present and promote the output from the research carried out to date by COCIS on home-grown mass timber systems as well as to identify further steps needed for the commercialisation UK mass timber systems. For this purpose the attendees of the event, an individuals associated with timber and construction industry in Scotland, were asked to form a three separate focus groups to discuss various aspects related to home-grown mass timber systems in order to identify future steps that need to be addressed prior to commercialisation of potential products. Topics discussed by focus groups included:

- ‘Market for a home-grown mass timber product’
- ‘Home-grown resource compatibility, durability and performance in fire’
- ‘Mass timber fabrication requirements’

Summarised in this document are the main outputs from the discussions, which will be taken under consideration in identifying future research work programmes aimed to commercialise home-grown mass timber systems.

1.1 Market for home-grown Mass timber product

As results of the discussion on market for home-grown mass timber product, the following have been identified as key points that would have to be addressed to allow for commercialisation of home-grown mass timber product:

1. Government backing (i.e. timber 1st approach which aligns with current regulatory policy of reducing carbon footprint in construction)
2. Full understanding of the market and its segmentation (to develop most appropriate product and challenge current construction sector)
3. Focus on customer needs and quality of the product (value add)
4. Education and promotion based on successful trials of the products (i.e. cost comparison of home-grown product vs. alternatives)
5. Demonstration of use (proving viability of home-grown mass timber products)

1.2 Home-grown resource compatibility, durability and performance in fire

As results of the discussion on home-grown resource compatibility, durability and performance in fire the following have been identified as key points that would have to be addressed to allow for commercialisation of home-grown mass timber product:

1. Demonstration of financial benefit of specifying higher grade timber for mass timber production.
2. Demonstration of financial benefit of kiln drying the raw material to required (lower) moisture content.
3. Detailed review of the fire regulations in the UK with respect to mass timber products.
4. Focus on fire performance of building components comprising of mass timber products.
5. Collaborative research approach to evaluation of structural and fire properties of mass timber systems between Edinburgh Napier University and University of Edinburgh.

1.3 Mass timber fabrication requirements

As results of the discussion on mass timber fabrication requirements, the following have been identified as key points that would have to be addressed to allow for commercialisation of home-grown mass timber product:

1. Detailed overview of factory production control requirements for manufacturing of mass timber products.
2. Investigation into required moisture content and its effect on raw material used for manufacture of home-grown mass timber products.
3. Detailed outline and specifications of manufacturing equipment needed for a small, medium and large production volumes of home-grown mass timber systems.
4. Review of possible production lines, its adaptability to current market conditions and level of automation required.