untying the wood industry’s Gordian Knot:
what architects need to know about wood
& how the global timber industry can encourage them to use more of it

Peter Wilson, Director, Timber Design Initiatives Ltd
the same obstacles are everywhere

- insurers
- fire departments
- planning departments
- building codes / regulations
- mortgage providers / lenders
- public and political perceptions
- construction industry resistance

but also

lack of joined-up response from manufacturers & suppliers
lack of up-to-date, objective information

and

lack of knowledge about timber amongst architects
first question

who here works in a timber building?
answer

a timber building is your shop window

potential customers will better understand the value of your product if you can demonstrate your own use of it

engineered timber & advanced timber technology is the future

the 21st century will be seen as the century of timber building
second question

how many of you consider architects as important customers / specifiers of timber?

where are they positioned in your customer chain?
your customer chain

sawmillers / processors
traders
manufacturers
designers / architects / engineers
builders
end users
third question

how many architects do you think there are in europe?
569,000

key customers you’re not reaching
seeking the golden fleece

construction timber can be low or high value

innovation is the only sustainable route to high value

architects provide innovation
so what do we mean by innovation?

before the invention of the internal combustion engine, if you asked people what improvements they wanted in transportation, they would probably have replied - “a faster horse”

Henry Ford
but most use of wood is conventional - and often low value

there is always someone who can sell a similar product to yours at a cheaper price

we live in a fast changing world

the forest and timber industries in many countries are slow to anticipate change - & slow to invest in innovation

investing in education will lead to genuine innovation - & greater, higher value sales
new technologies take time to evolve

the Crystal Palace at the Great Exhibition of 1851 was a technological breakthrough that mimicked stone construction
transforming the city with wood
why timber cities, why now?

80% of the world's population of eight billion will live in urban situations by 2050

international concerns over rapidly accelerating climate change & the scale & nature of extraction processes demands a paradigm shift in the way we conceive buildings & cities
first tall, solid wood residential building
large urban block, dalston lane, london

8-11 storeys
traditionally concrete structure

10,000 tonnes of concrete
lighter structure, less material

1,930 tonnes of timber
still a large volume of wood

4050 cubic metres (2500 trees)
dense urban block

16,000 square metres - homes for 800 people
lighter foundations, faster construction, fewer deliveries, less noise, less waste
and large volumes of sequestered carbon
solid wood, vertical timber: the 21st century city lies ahead
80 storeys, timber structure
advanced timber engineering

60,000 m² floor area
55,000 m³ timber
provocative proposals
drive timber research & development
be assured:
tall wood buildings are coming

To accelerate the use of wood in buildings, especially tall wood buildings, and for other purposes.

IN THE SENATE OF THE UNITED STATES

Ms. STABENOW (for herself, Mr. CHAPo, MS. KLOBUCHAR, MR. DAINES, and Ms. CANTWELL) introduced the following bill; which was read twice and referred to the Committee on ____________________

A BILL

To accelerate the use of wood in buildings, especially tall wood buildings, and for other purposes.

Be it enacted by the Senate and House of Representa-
tives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the “Timber Innovation Act of 2016”.
To design them, we need architects who are better educated about timber. Architects receive little information on timber in their formal education. Post-qualification timber education is ad-hoc and varies from country to country. Much of the information by manufacturers/suppliers offered is inaccurate, out-of-date & focused on sales. For timber specification/use to increase, architects need to know more about the material’s properties & possibilities.
continuing professional education in timber

should be from qualification to retirement

and should offer -

cumulative value of knowledge gained

individual choice of subject matter and path

individual pace of learning

specialism value to employer
EU objective

to ensure Europe’s construction industry has better educated, better skilled & more mobile professionals available to it
precedent

developed 20+ new products/systems from locally (Scottish) grown timber; instituted 20+ research networks; engaged with 600+ companies

legacy:

the (11mn Euros) Scottish Construction Innovation Centre
forest & timber industries’ solution

the european forest, timber design, manufacturing & construction sectors to work together to provide an exemplar system of Continuing Professional Education (CPE)

but these sectors won’t achieve this on their own
The knowledge triangle is required to deliver high-quality timber education.

Universities

Pan-European network

Research centres

Industry
via pan-european continuing professional education

- free online material
- massive open online courses (moocs)
- individual modules
- masters courses
- PhD level
European Qualifications Framework (EQF)
European Credit Transfer System (ECTS)

participants tested on knowledge gained

participants awarded credits under ECTS

credits can be accumulated and are transferable

credits count towards additional qualifications under EQF

cross border recognition of european qualifications encourages job mobility
the incentives for individuals

the potential to manage & plan own career path
to demonstrably increase skills & competence

enhances earning potential

enhances prospects and job mobility

enhances attractiveness to employers & clients
incentives for employers

a coherent programme of lifelong learning available to staff: up-to-date & state-of-the-art material

a low cost incentive scheme to encourage staff to become better qualified

supporting employee development helps to keep good staff

staff become specialists in timber design & construction

company is able to sell these additional specialist services to clients
incentives for industry participation

drives research & development

gives companies access to research, development & testing facilities throughout Europe

provides access to EU / national / regional /funding support

ensures objective information about products & systems reaches a pan-European audience of specifiers

provides companies with continuous feedback on the quality of their products, technical information & services
incentives for academic institutions & research centres

- opportunity to develop short, medium & long term applied research programmes with industry
- opportunity to share in intellectual property rights relating to new developments
- able to develop industry-led modules & courses & offer them to a pan-european market of architects
- focused marketing programme to assist in reaching high quality postgraduate and PhD students
how will it be paid for?

individual

employer

public funding training grants

industry sponsorship

education awards / grants

crowdfunding

combination of all of above
a paradigm shift in the way CPE is perceived & delivered

there is no other continuing professional education scheme like it available anywhere in the world

the opportunity exists to create a world class lifelong learning programme focused entirely on the use of timber in construction

establishing this will give the forest and timber industries a competitive advantage over other sectors such as steel and concrete
so let’s look out to the world
new opportunities await
with education, we can build them!
thank you!

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