

The traditional material wood has a bright future – and fascination

Keynote by Katharina Lehmann

Wood Policy and Innovation Workshop Brussels, 7 Nov 2024



Katharina Lehmann

has headed the leading Swiss timber construction and timber industry company Blumer Lehmann, headquartered in Gossau SG and with locations in Germany, Austria and Luxembourg, since 1996. Born in 1972, Katharina Lehmann studied business administration at the University of St. Gallen HSG. She is CEO and Delegate of the Board of Directors of the fifth-generation family business, which will celebrate its 150th anniversary in 2025.

With her companies, Katharina Lehmann is active along the entire Swiss timber value chain - from the sawmill to the production of sawn timber, the utilisation of waste wood for heat and electricity and the use of wood in construction. Traditional craftsmanship is combined with state-of-the-art technology and innovative production methods. One of Blumer Lehmann's specialities is modular or free-form buildings, which are often created in collaboration with renowned architects in Switzerland and abroad.

In addition to managing Blumer Lehmann, Katharina Lehmann is committed to the sustainable management of tropical forests and sits on various boards of directors of construction-related companies. As President of the Swiss Wood Sink Association, she is also committed to recognising the CO2-reducing effect of wood production and use and is involved in various committees for construction and digitalisation processes and business-friendly framework conditions.









We are Blumer Lehmann – since 1875



authentisch

Grafschaft (DE)

Verkauf | Planung Holz- und Modulbau

Grevenmacher (LU)

Verkauf | Planung Holz- und Modulbau

Gossau (CH) Hauptsitz

Gland (CH)

Verkauf Holz- und Modulbau

Ab 2026

Steinau a.d. Straße (DE)

Produktion Holz- und Modulbau

Großenlüder (DE)

Produktion Holz- und Modulbau

Bad Rappenau (DE)

Service | Unterhalt Silotechnik

Klosterlechfeld (DE)

Verkauf | Produktion Silo- und Soletechnik

Alberschwende (AT)

oa.sys: Verkauf | Planung und Produktion | Holzbau



Timber constructions – an important part of a sustainable development of the construction industry



yesterday today tomorrow















2000

▶ 2024

Timber constructions – an important part of a sustainable development of the construction industry





- Products
- Process
- People

2000

- Innovation
- Information | Building codes & standards

Wood products as lever to decarbonise the built environment

serial and modular

construction

2024

Wood products as lever to decarbonise the built environment

⇒ Sustainable wood-based value chain

Only a managed forest can deliver its full sustainable performance!



Biodiversity and conservation

Provision of recreational areas

Greater overall benefits for society and climate protection

Protection against natural hazards, drinking water

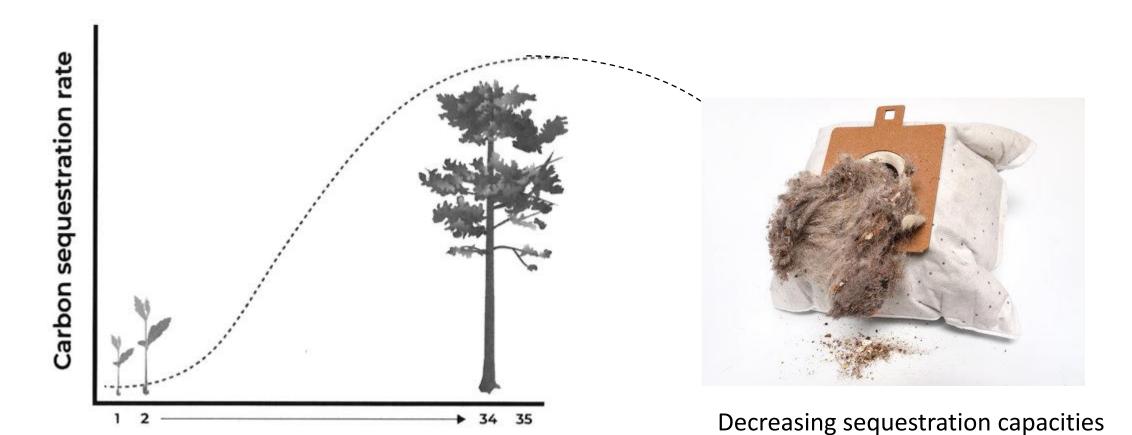
Wood production and supply

Optimisation of forest sequestration performance



=> Forests as «full vacuum cleaner bag»

Sustainable forest management today



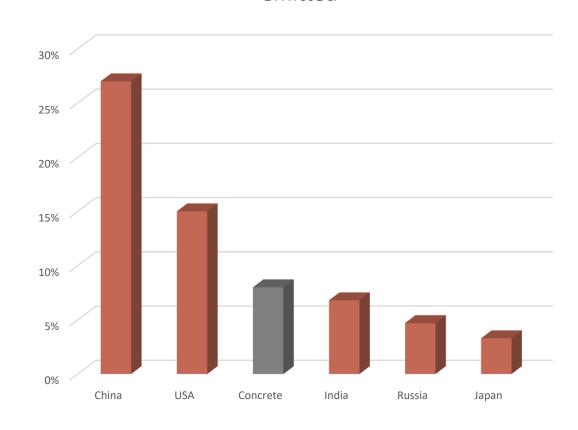
Tree age (years)



Wood supply as key factor

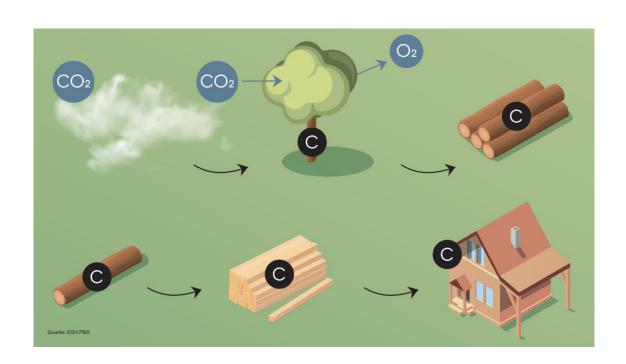
- Optimisation of forest sequestration performance
- Increase of forest "fitness" (climate resistance)
- long-life wood products longterm CO₂ storage.
- Substitution of fossil energy, heating fuels, insulation
- Substitution of building materials with high CO₂ emissions
- Climate positive buildings (as a vision!)

Percentage of global carbon emissions emitted





Circular economy <-> CO₂



1st priority **STORAGE EXTENSION**:

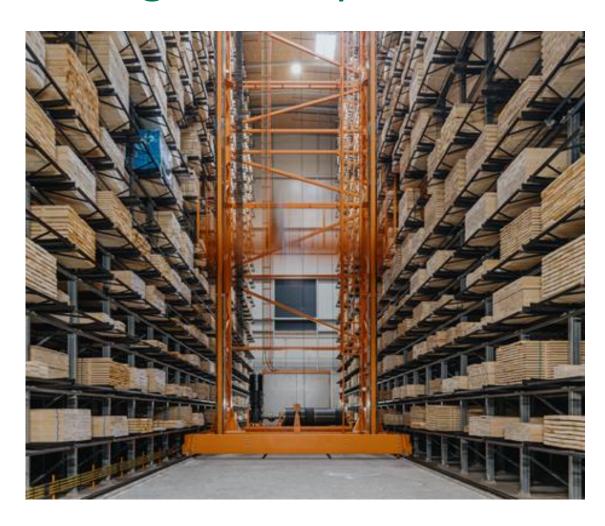
Increasing the inflow of **long-life** wood products into the system

2nd priority **STORAGE PROLONGING:**

=> re-use concepts

Timber Industry: transformation to long lasting timber products





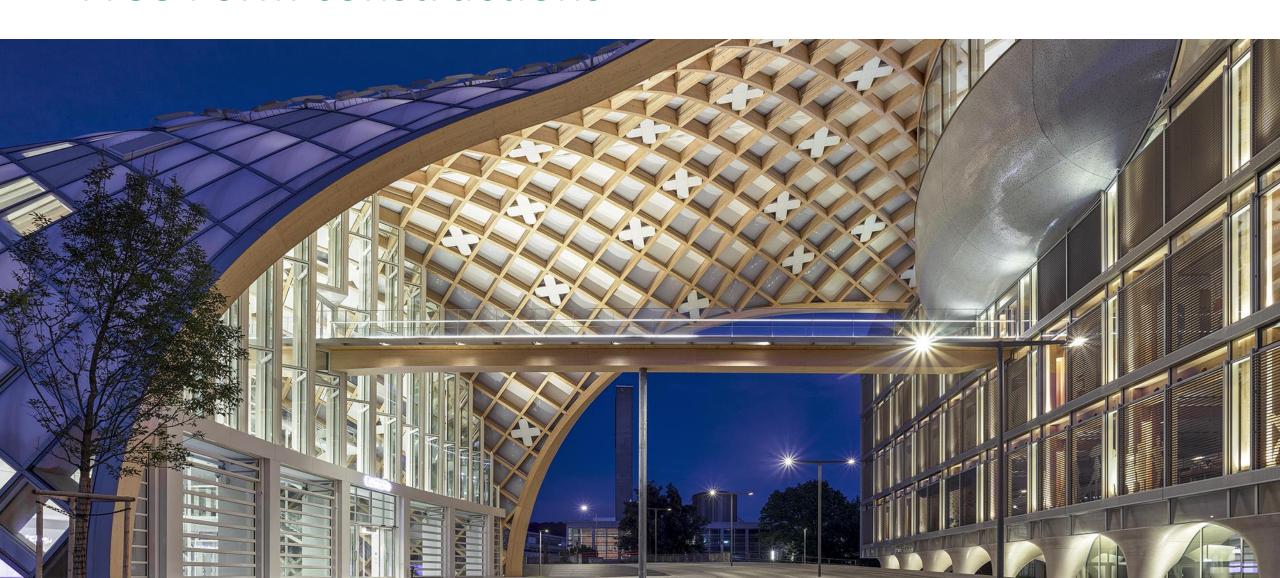
- Semi-finished products
- For construction industry: mainly spruce/fir
- Reliable, industrialised
- Compliant with regulations and standards
- Long life cycle
- Circular/demountable
- Today not (yet/everywhere) necessary: dematerialised

Timber construction today:

«Freeform» ----- «Standard»



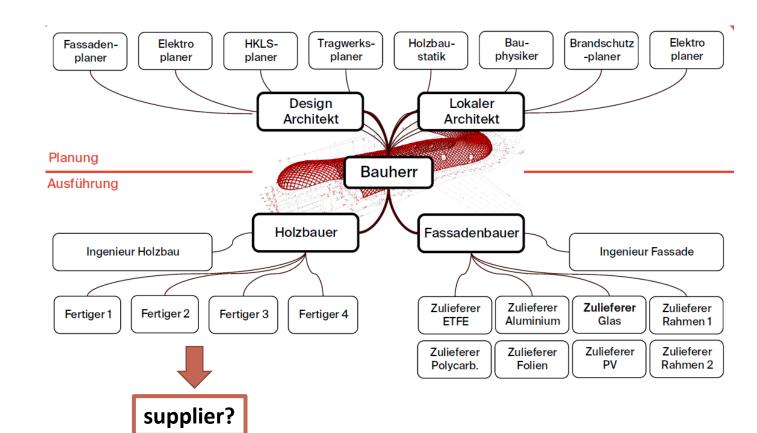
Free Form constructions



Integrated processes Design | Engineering | Execution



- => interplay of disciplines
- => process-based work
- => reliable responsibilities

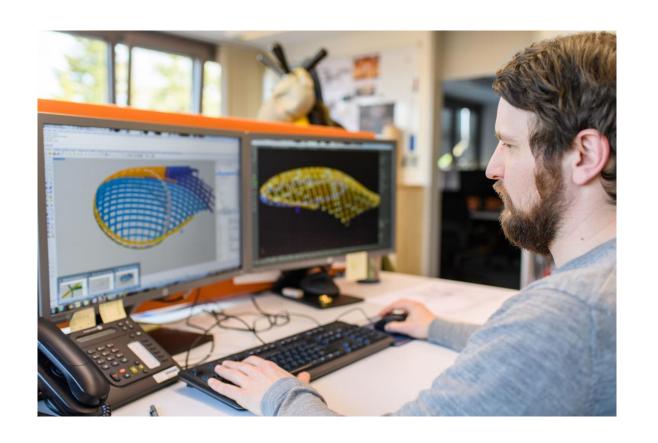




The process of timber construction

Planning and production | design-build

- IT-supported/ Data-based
- New roles, tasks, interfaces
- Collaborative and no longer sequential
- Computional design in combination with material/machine data
- Industrial production and automated assembling



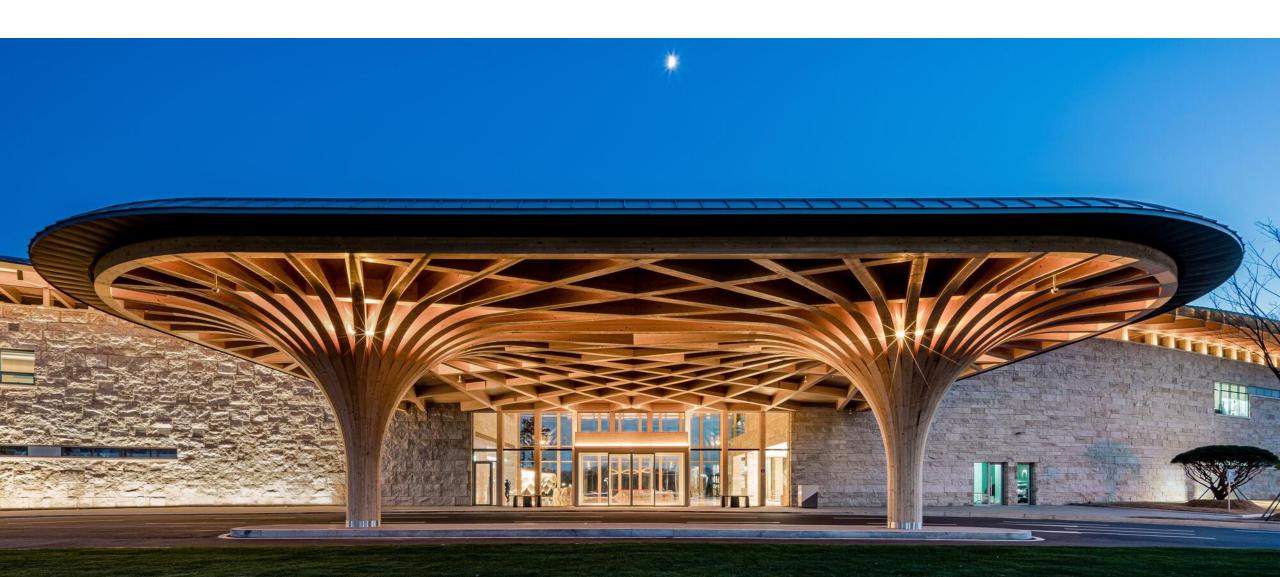






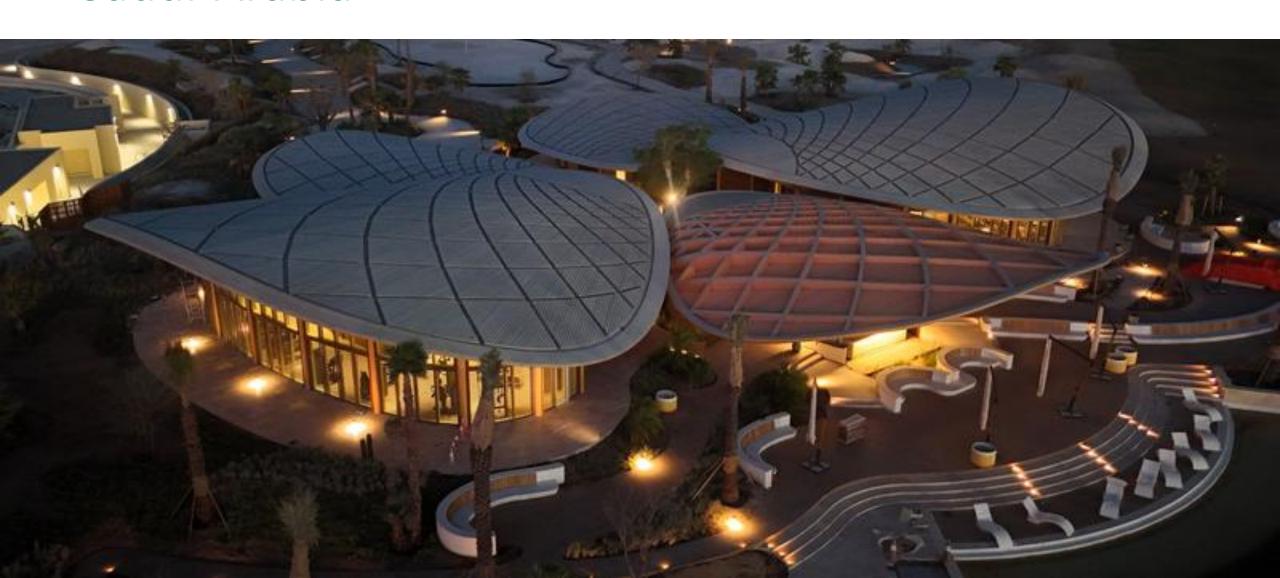


South-Korea





Saudi-Arabia

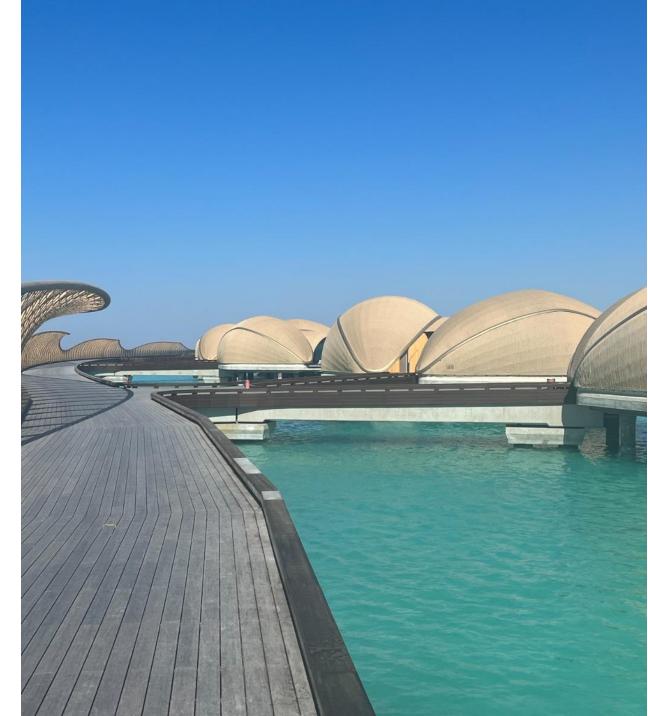












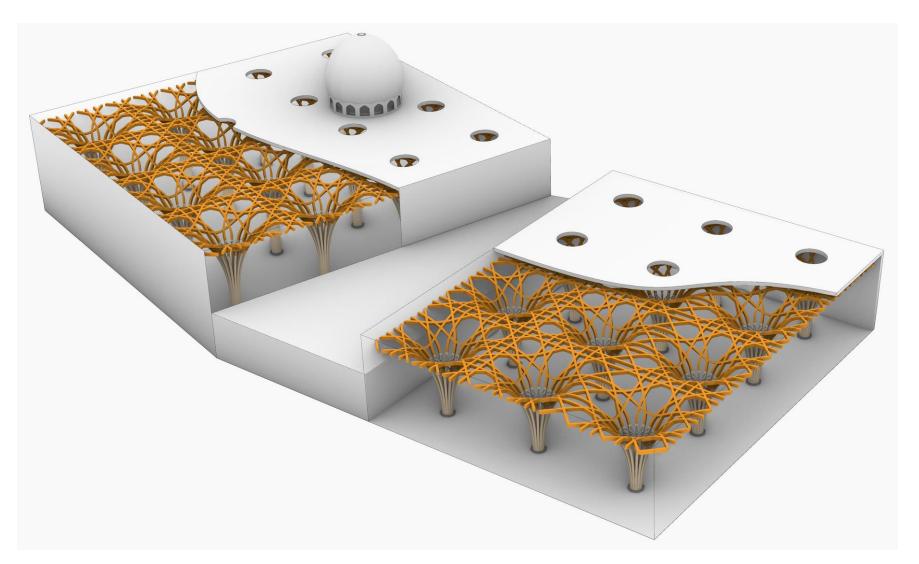






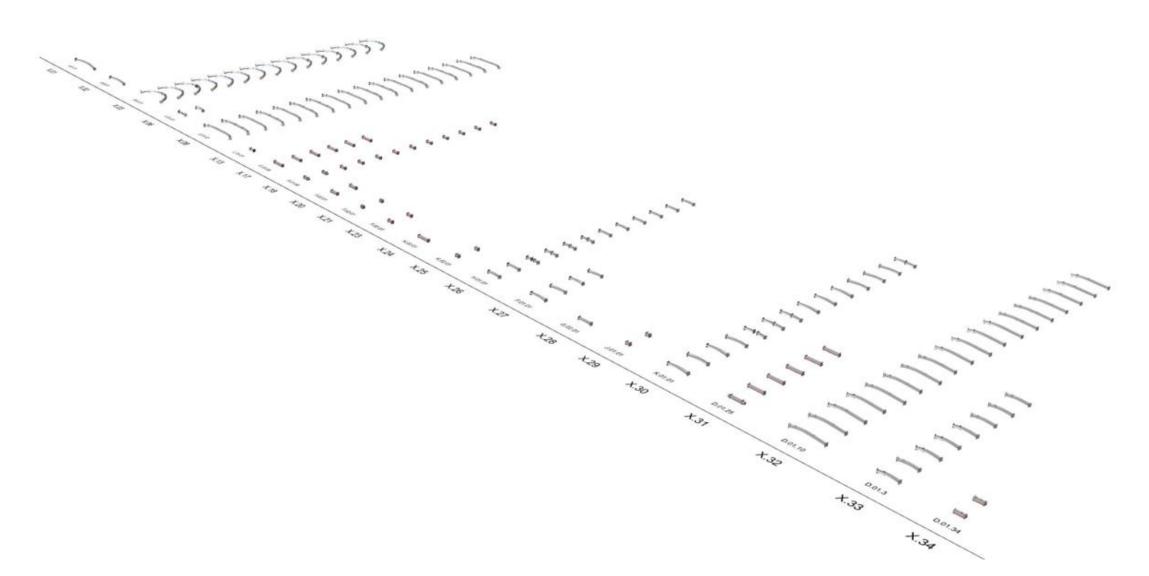


300 free formed beams, described in the model





300 beams – some of them are the same





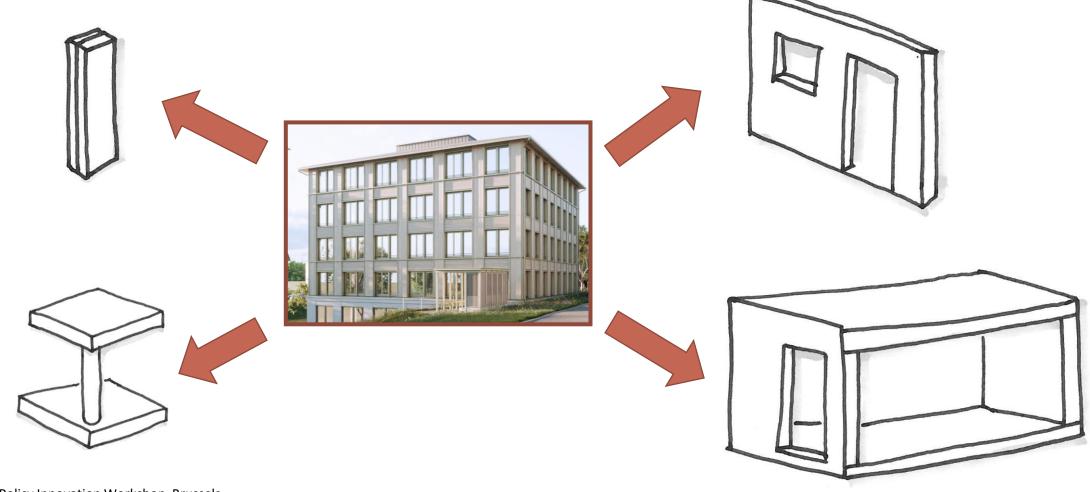
Design-Build







Timber constructions are prefabricated





Conversion, extension, renovation







Residential buildings







Public buildings





Health care buildings









Office buildings

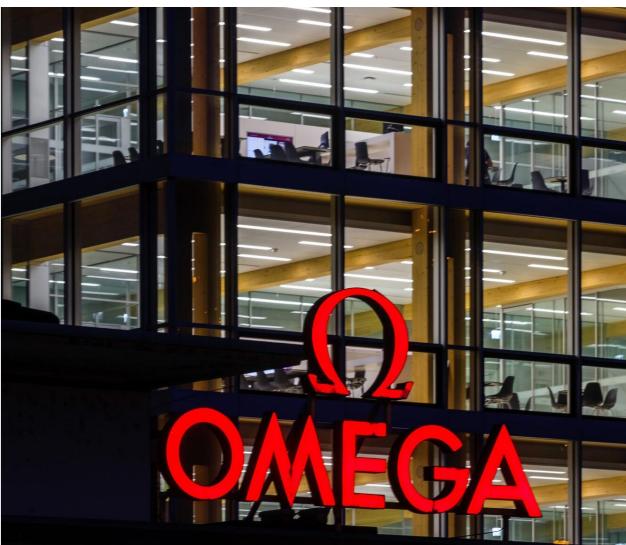






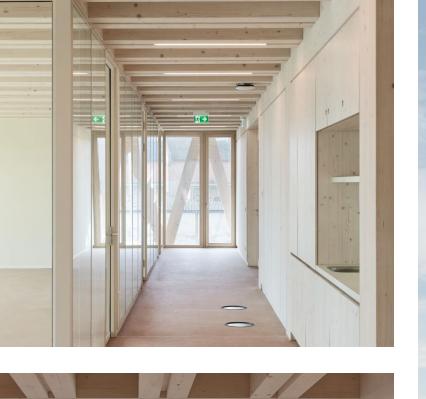
Office buildings







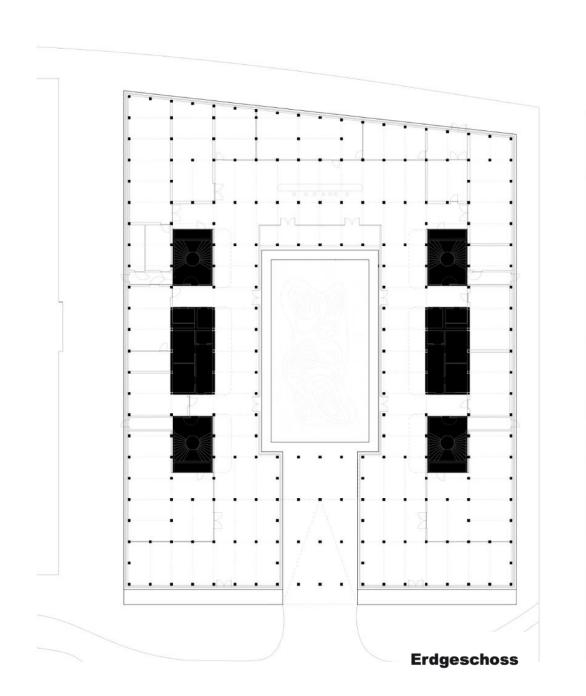


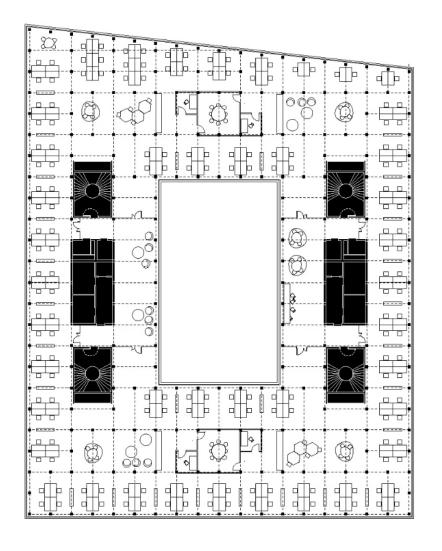








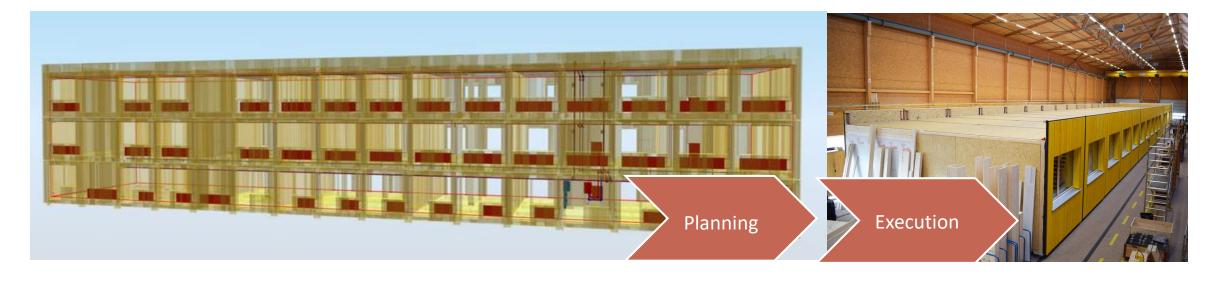


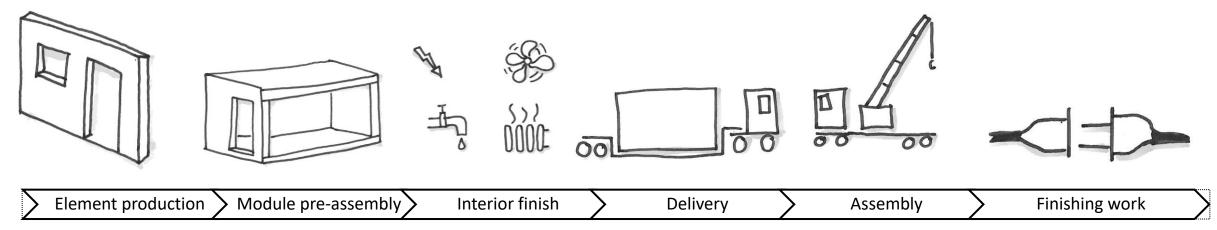


Regelgeschoss

Maximise pre-fabrication to minimise construction work onsite









Modular buildings

























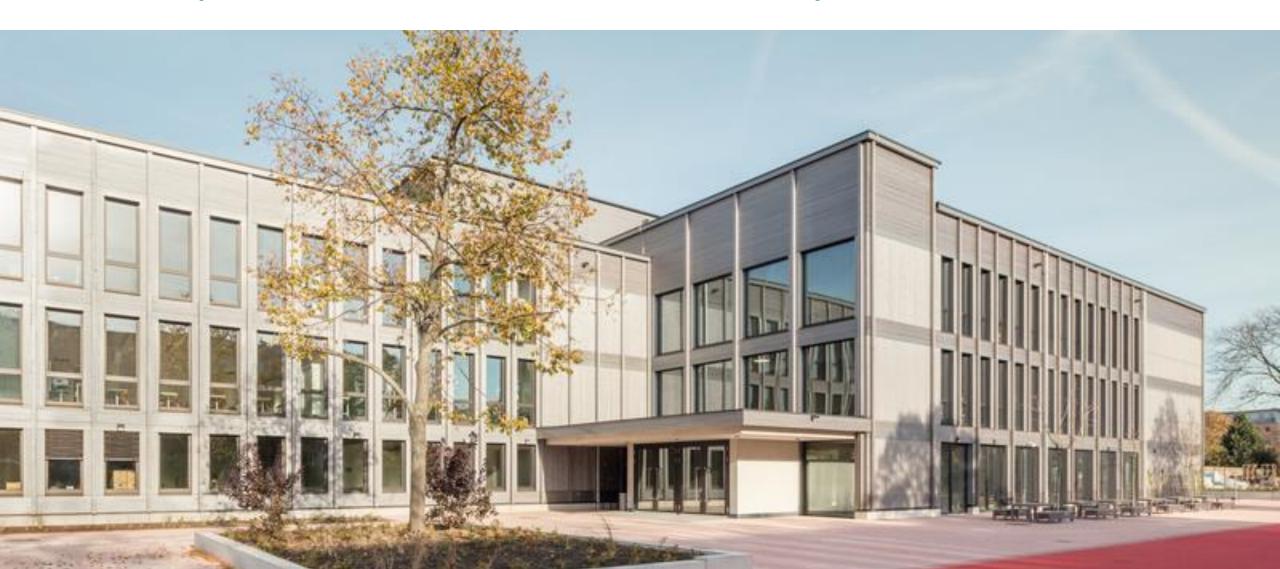








Example: Dresden Seidnitz Primary School











Concepts for the urban environment







Modular buildings are in vogue – earlier

- Mostly educational buildings
- defined room concepts
- Relocation possible
- Assembly during school holiday
- Flexibly expandable
- Precise scheduling and cost planning
- Financing models
- Flexible "ordering" or framework agreements
- Shorter project implementation time in public procurement





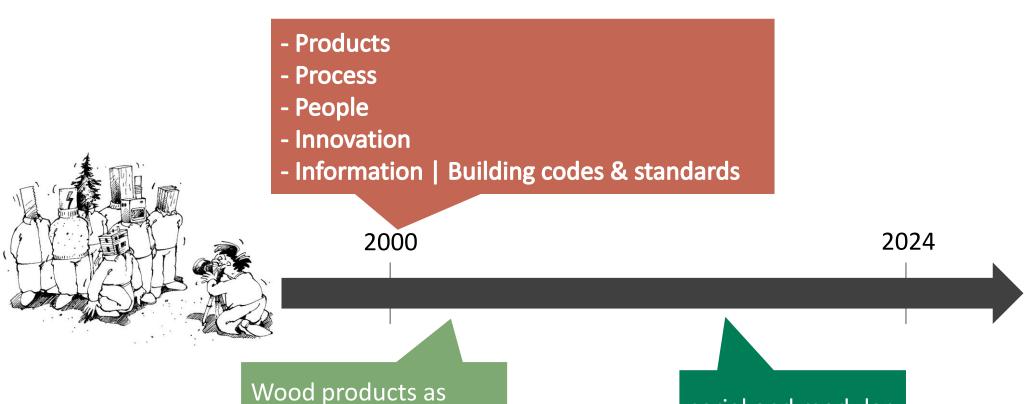
Modular buildings are in vogue – today

- Various use cases (care, hospitality, office, residential buildings including micro-apartments, etc.)
- Often permanently planned buildings
- Minimise time onsite or temporary use of locations
- Increasing project volumes
- Reusability circularity
- Precise scheduling and cost planning/procurement processes
- Scaling? => shorter project implementation times in the private construction industry?
- Who has an interest in these changes?



Timber constructions – an important part of a sustainable development of the construction industry





serial and modular construction

lever to decarbonise

the built environment



Responsibility for | Investments in:

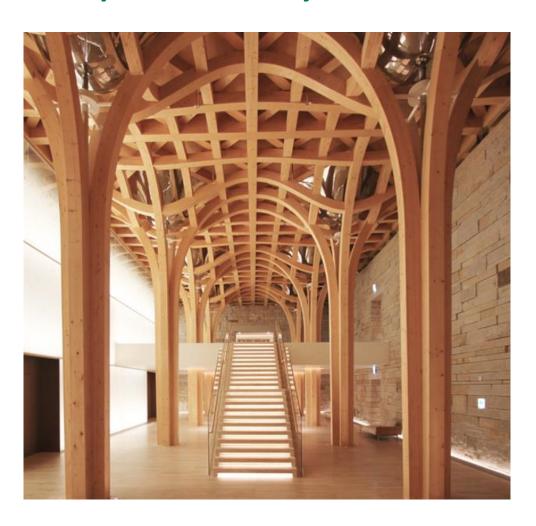


Key Factors: P's

- Sustainable and long lastingproducts => projects
- Efficient and optimized processes
 (planning & production)
- Qualified and motivated people
 - ⇒Advanced, modern and interdisciplinary education



Responsibility and attention for:



- Wood friendly building standards, codes and norms
- Innovation/ R&D
- Integrated value chain approach with long-life-cycle timber products
- Collaboration, trust and partnership
- Ensuring the availability of wood resources



Wood has a bright future!



If we use wood wisely and sustainably it will be a great contribution to climate-neutral constructions.

There is a lot to do in or for the entire wood value chain.



Thank you!



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