Wooden construction in Estonia

New technologies and methods for sustainable urban development in the Baltic Sea Region

KESTI project presentation at café Klaus
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House of your dreams

Could it be something like that?

www.hobbiton.ee
The idea of wood

- Not only for eyes! (Pärnu… etc)
- Not only for “warm” and “good” feeling! (Kalamaja, Nõmme.. etc)

More important

- Energy efficiency!
- Combines not produces Carbon dioxide- $\text{CO}_2$
- Is renewable resources – and we do have it a lot!
- Gives an opportunity to “pre-build” houses.

➤ This is the reason why we should think of more building wood constructions
Estonian Woodhouse Association

... is founded in 1999 – by 17 entrepreneurs
... currently involves 35 companies
  - 32 producers
  - 3 supportiv members

... represents 50% of the industry’s total turnover and number of employees

... is the leading organization of Estonian Wooden Houses Cluster
... is a member of International Log Builders Association
Estonian Woodhouse Association

- Joint marketing, **joint sales** and purchase
- Joint communication and reputation building
- General development activities
- Joint vocational activities
- **Information exchange** and lobbying
Cluster program main goals

- To improve the international competitiveness
- the increase of turnover
- the increase of export turnover
- the increase of profitability
- the increase of productivity
- the increase of added value
  - 2010 – 2015
How?!

- Development of Estonian Woodhouse Portal [www.woodhouse.ee](http://www.woodhouse.ee)
- Systematical communicational activities and Estonian Wooden Houses newspaper once a year
- Competence building events for cluster members - seminars, conferences, workshops etc
- Different studies - Air-tightness and thermovisional studies, minimum requirements for log houses
- Juridical support for member
- Cooperation with educational institutions
- Study trips/trade fair visits to the priority markets
Estonian timber house industry

Long traditions

- timber frames have been used in Europe since the 11th century;
- timber buildings in Scandinavia date back to the 13th century;
- there are log houses older than 300 years present in Estonia;
- industrial production of timber houses in Estonia started in 1950's.
Products

- Timber frame houses
- Machined and handcrafted log homes
- Garden houses
- Architectural designing

www.puitmajaliit.ee
Planning

Old towns: A lot of historical housing estates: Tallinn, Pärnu, Haapsalu, Kurssaire, Tartu, Viljandi etc.

New building areas?

• Could be: or:

• Take your time
Building of wood in Estonia

Governmental role:
• State has to develop to “Smart subscriber”
  - Public procurements
  - Wider understanding of wood
  - Wider understanding of energy efficiency

Fire regulations
• Higher than 2-storage buildings?
Estonian forestry and timber industry

- 20% of all manufacturing industries
- 50% of the country is covered with forests
- 3.9% of GDP
Estonian timber house industry

Aprox. 2000 workers
140 producers
85% exported
total export in 2012: >200M€
i.e. 3% of global prefab house export
Estonian timber house industry

**Challenges:**
- Product development
- Production development
- Which product is needed?
- For who?
- How to sell with bigger profit?
- Input – energy, materials, salaries
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Factory house conception:

Prefab modules:

• Fast production and lower costs
• well-designed and tested structural and technical solution
• Flexible and easy to put up
• the production process in the factory is effective and easily controlled
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Nearly Zero house:

- Tallinn University of Technology
  N-zero testhouse built by Matek AS.

www.matek.ee
Smart house from Estonia?

www.passionhouses.com
Thank you!