Sustainable, high-quality and cost-effective? Perspectives on use of wood in the ARA housing sector

Vesa Ijäs
Development architect
Housing Finance and Development Centre of Finland (ARA)
Three different views

Architectural construction

Structural construction

Material structure

Architect

Structural Engineer

Material Engineer

- Architecture
- Architectural design
- Building model
- Solutions
- Client/customer

- Structure plan
- Structural design
- Structural engineering
- Regulations
- Calculation, capacity

- Wood structure

National Building Code of Finland
Vierumäki, PuuMera 2010-2011
Latokartano, Helsinki 12/2012
Seinäjoki, Lintuviita 11/2013
Vantaa, Kivistö 2014-2015
Largest wooden multi-storey apartment building in Europe

11 800 kem
10 120 asm2
186 apartments
7 floors

www.puumera.fi
Jyväskylä, Puukuokka 1 2014
Highest in Finland/8 floors

3 576 asm2
58 apartments
8 floors

www.lakea.fi
Research & Preplanning & Management

R & D & I

Plan    Property    Consumer
Primary Energy    Energy Efficiency    Material Efficiency
Electric    Heating    Water

Calculation models – Monitoring Environmental classifications

Preplanning    Plan
Management    Construction

PUBLIC - RESEARCH - PRIVATE
Housing finance and development centre (ARA)

- 2008 - ARA - Lahti
- State housing agency
- Operating under the supervision of the Ministry of the Environment
  - Sets objectives and guidelines
- Implement government housing policy
- About 50 employees
- Engineers, architects, layers, economists
Main tasks

1. Implement government housing subsidies
   - Interest subsidy loans, different kinds of grants and guarantees, focus is in social housing

2. Tasks concerning state subsidized housing stock
   - Guiding and monitoring; risk management

3. Providing housing market information
   - Housing market survey, statistics of homeless and construction costs

4. To promote developing activities: improve of maintenance, long-term planning etc)

5. Responsibilities of different government housing programs
60 years = 1 million ARA-subsidized new dwellings

Percentage of ARA production:
- 1950-59: 30%
- 1960-69: 32%
- 1970-79: 57%
- 1980-89: 39%
- 1990-99: 58%
- 2000-09: 23%
Costs in ARA-production and selling prices of new market financed dwellings (euros/square meter)
ARA-housing stock today

- Ordinary rental dwellings 316 000
  - Owned by municipal companies 214 000
  - Other non-profit corporations 102 000
- Rental dwellings for elderly 48 500
- Rental dwellings for students 37 400
- Rental dwellings for other groups 7 300

- RENTAL DWELLINGS IN TOTAL 408 200

SOCIAL RENTAL HOUSING 16 % OF WHOLE HOUSING

- Right of occupancy dwellings 34 000

- ARA -DWELLINGS TOGETHER 442 200
Interest subsidy loans, different kinds of grants and guarantees 2015

- **Interest subsidy loans**: 1 250 M€ (1 040 milj. € v. 2014)
- Takauslainavaltuuus 285 milj. euroa (285 M€ 2014)
- Erityisryhmien investointiavustukset 120 M€ (120 M€ v. 2014)
- Käynnistysavustus Helsingin seudun MAL-kuntien normaaleille vuokratalohankkeille 10 milj. euroa (10 milj. v. 2014)
- Takauslainojen käynnistysavustus 3,0 M€ (2,5 M€)
- Perusparannuksen takauslainavaltuus 100 M€ (YM: 300 M€), as.oy perusparannuksen (40 %) korkotukilainoista luovutaan
- Rakennusten käyttötarkoituksen muutosavustus 2 M€

**Valtuudet mahdollistavat arviolta seuraavat asuntomääät:**
- Korkotukilainoitettu uustuotanto 8 000 asuntoa
- Korkotukilainoitettu perusparannus 4 500 asuntoa
- Korkotukilainoitettu hankinta 500 asuntoa
- Takauslainat (UT) 2 000 asuntoa

| 1 770 milj.e |
| 15 000 |
Borrowers

- Social housing is carried out by municipality-owned companies or designated non-profit organisation

- Finnish municipalities
  - Directly
  - Municipality-owned companies

- Designated borrowers
  - Designated by ARA, borrowers have to commit rules and legal framework of owning social rental dwellings
  - Non-profit organisations
  - Special purpose associations
    - eg student and old-age organisations
Establishing the Designated borrower for wooden multi-storey apartment buildings
Non-profit organisation + profit

Viherpuu – Arkipuu – Laatupuu
Rakentamis- ja kiinteistöalan näkökulmasta tehty selvitys puukerrostalojen rakennuttajaorganisaation perustamisesta, toimintamallista ja kilpailukykytekijöistä
30.4.2014

www.tetraedri.fi