Green Building Development and Trend in Finland

Maija Virta
CEO
Green Building Council Finland
FIGBC established 2010

- Enhances activities related to built environment
  - Implementation of environmental leadership process
  - Use of building labeling and other management tools

- Provides information and activates discussion

- Offer training, information services and development activities

- Represents members both in Finland and in international forums
- Connects Finland to international network of Green Building Councils
Green Building Council – a Co-operation Network

- National Green Building Councils (in 80 countries) are independent, non-profit associations

- Members:
  - User organisations
  - Owners, investors
  - Municipalities, state
  - Developers, builders, designers
  - Product, system and material manufacturers
  - Other associations
Traditional Log House

Kuva Suomen Perinnehirsi Ky
Polarsheikki, 1980
Kuopion Asuntomessut, passiivinen aurinkotalo
Villa Real, 2007
Hämeenlinnan asuntomessut, matalaenergiatalo

kuva Olavi Tupamäki
Luukku, 2010
Finnish zero-energy house in Solar Decathlon
Wodden Appartment Building, Heinola 2012
Lintulahdenranta, 2010

Kuva Skanska
Viikki, Helsinki
sustainable development since 1993
Skaftkärr, Porvoo
Energy efficient town planning

A new energy-efficient suburb for 6000 residents will be built in the historical City of Porvoo, South Finland. Spurred by this project, energy efficiency has been raised as one of the key priorities in the city strategy, and Porvoo aims to become a city of carbon-free living. It also will provide true model for sustainable development for the entire Finland.
Low2No – City Block Development, Helsinki
Over 1500 buildings have environmental label in Finland

- **Promise**
  - During last 5 years over 1500 buildings e.g. Senaatti, SOK, Tapiola, Kesko, VVO, ATT
- **LEED**
  - 12 LEED-sertified buildings: KOy Lintulahdenvuori (Platinum), Nordea 6 buildings and 1 premises, shopping centers Sello, Trio and Skanssi, as well as Moveres Business Garden
  - Another 14 registered projects (November 2010)
- **BREEAM**
  - 4 projects: KOy Vantaan Honkatalot, Spondan Unionin ja Fabianinkadun kiinteistö refurbishment, Business Park Polaris (Castor), and Lahden Duo 2 (API)
Need for Environmental Leadership in Finland

Influence

International
0,1...1 %
300...3000

National
99...99,9 %
319.700
1.150.000
50.000
199.000
300+

1.400.000 Buildings
320.000 Companies
300+ Municipalities

Users
Buildings
Areas
Detached house
Appartment building
Commercial/public
Commercial/private
Environmental Leadership of Built Environment in Finland

Environmental targets and measures / segment (5-10 pcs) (kWh, kgCO$_2$, IAQ, user satisfaction ...)

Tools: Classification on Indoor Climate, LEED, BREEAM, DGNB, Promise, Dow Jones Sustainability Index, EU Green Building, WWF Green Office, Kuntotodistus, PIMWAG,,Ekokompassi,...

Property management

Design Construction

User processes Maintenance

Promotion

Market measures and contracts (ROI, value of building, life time costs, trans actions ...)

Training

Promotion

Mandatory tools: Energy certificate, Service Manual, Estimate of building’s condition, Need of maintenance activities

Development (transparent, market driven)
Leadership: Target setting, measurement, management and contracts

1. TARGET SETTING
   - 1 category (demanding level)
   - 2 category (good level)
   - 3 category (regulatory level)

2. MEASUREMENT
   - Energy consumption (kWh)
   - Emissions (embodied) (kgCO₂)
   - Water (m³)
   - Waste (kg)
   - User satisfaction (%)
   - Thermal comfort (°C)
   - Indoor air quality (VOC, ppm)
   - Design and life time information database (BIM)

3. MANAGEMENT AND CONTRACTS
   - Strategic business management
   - Operative management of supply chains
   - Preparation of transactions
   - Environmental reporting
   - Green Building Certificates