Experiences voluntary IAQ guidelines and material labelling

Jorma Säteri

Finnish Society of Indoor Air Quality and Climate, FiSIAQ

SISÄILMAYHDISTYS

Jorma Säteri

Finnish Society of Indoor Air Quality and Climate

Healthy building

Psychological effects:
Expectations, fears, status etc.

Productivity effects:
SBS, high temps, acoustics, lighting...

Comfort effects:
Draught, odours, noise, ...

Suspected or indirect health effects:
(S)VOCs, overheating, noise, ...

Proven health effects:
ETS, particles, radon, molds, CO, ...

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Jorma Säteri

Finnish Society of Indoor Air Quality and Climate

The Finnish IAQ Classification System

Target values for indoor air quality and climate (S)	
Instructions for design and construction (P)	**Requirements for building products (M)**
Building and constructions · **HVAC systems**	**Classification of Building materials** · **Classification of ventilation components**

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Target values (S)

- Three categories
  - S1 "individual" ~ EN 15251 cat I
  - S2 "comfortable" ~ EN 15251 cat II
  - S3 "satisfactory" – building code level
- Specified from client's and engineer's viewpoints

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Technical target values

- Criteria for target values:
  - relevant for health and comfort
  - affected by the actors in the building process
  - verifiable at reasonable accuracy and cost
- The following target values will be given:
  - Room temperature
  - Air velocity
  - Carbon dioxide
  - Radon

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# Prescriptive criteria are needed for some contaminants

- *VOC, ammonia, formaldehyde* → use low emitting building materials
- *Fine particles* → use F9/F8 class filtration of supply air (EN 13779)
- *Dust and dirt* → criteria for cleanliness of surfaces of the new building
- *Microbes* → ensure good control of moisture in design and construction
- *ETS* → ban smoking indoors

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M1 labelled products

- Today there are over 1200 labelled products by over 110 producers.

- The largest product groups:

  - Plaster, rendering, putties, fillers, flooring, paints and varnishes, building boards and mineral wool.

- See *www.rts.fi* for complete listing

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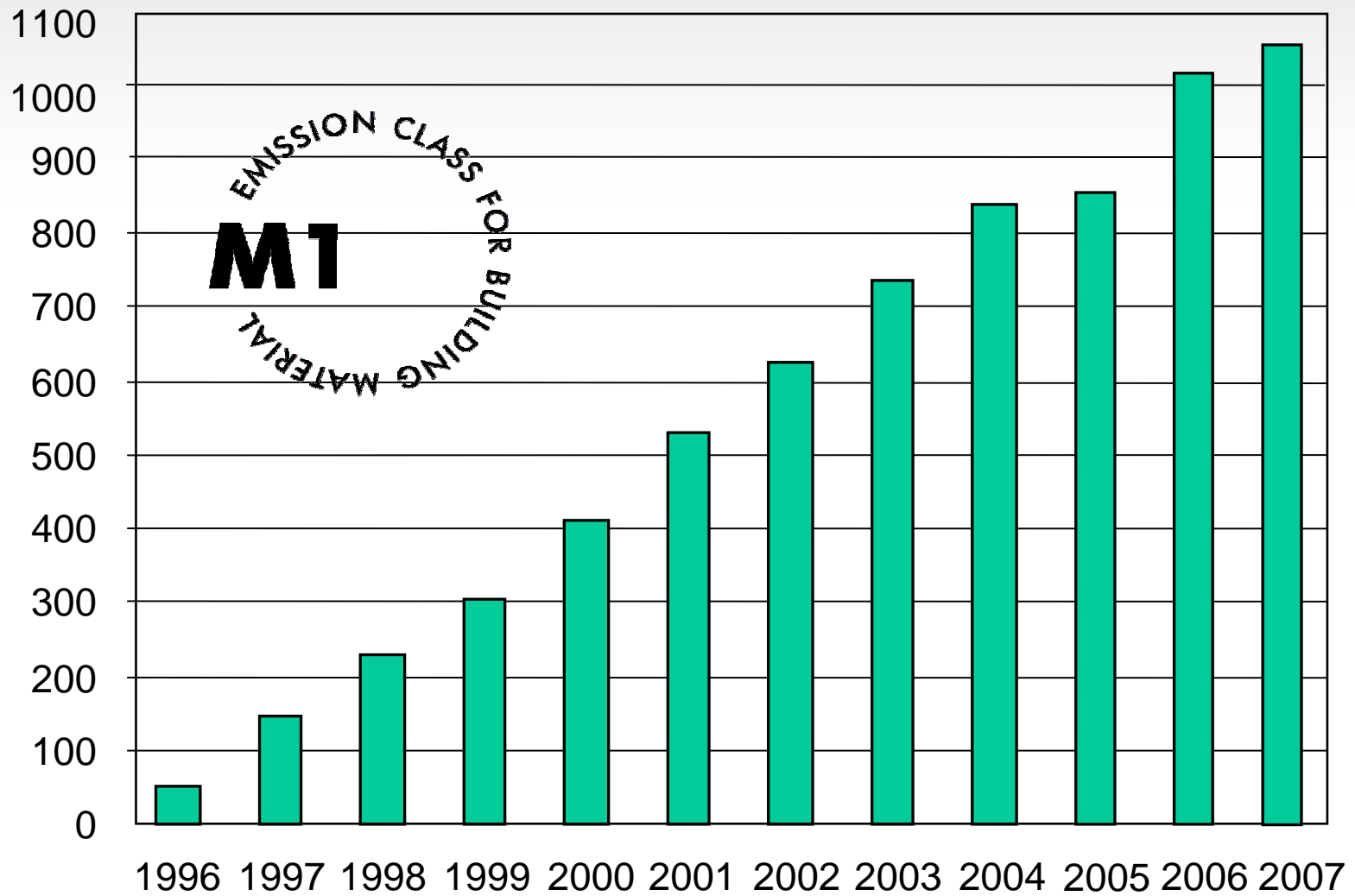
Organisation of M1-labelling

Product manufacturing
Finnish and foreign industry

Product testing
Independent laboratories:
VTT, FIOH, Eurofins
Open for others

Development of criteria
Finnish Society of Indoor Air
Quality and Climate

**Administration of
M1-labelling**
The Building Information Foundation RTS
Committee PT 17 Indoor Air Classification
- 19 members + secretary (RTS)
- industry representation

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Why has the M1-label become so popular?

- Pragmatic target values
- Low cost testing (and labelling)
- Confidentiality
- Transparent labelling process
- Impartial and independent background organisations
- Information campaigns and product marketing have increased awareness

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The test methods and criteria should be harmonised

- We follow the work of CEN TC351 on CE-marking of emissions from building materials
- We participate in the harmonisation of test methods
  1. Comparison of labelling systems
  2. Round robin testing of laboratories
  3. Harmonisation of FA and VOC testing based on ISO 16000 standards
     - Testing age 3/28 days
  4. Standardisation of odour testing
  5. Agreement on common evaluation criteria

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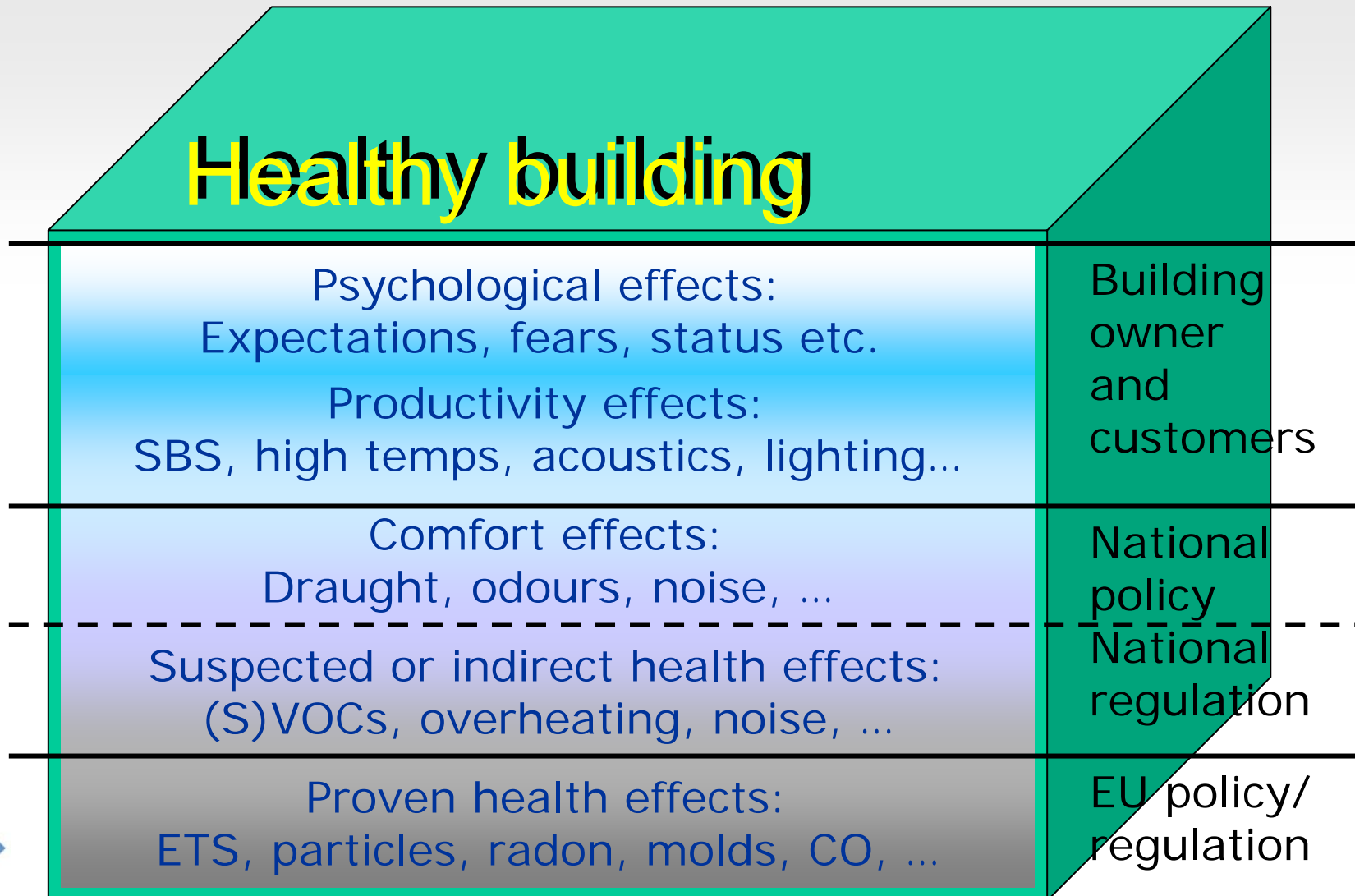
Successful policy for better indoor environment

- Minimum levels set by EU for construction and consumer products – guidelines for national policies
- National minimum requirements for air quality and system performance
- Voluntary schemes for "above-minimum" quality and performance
- Information campaigns to increase awareness and demand

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