



# Conclusions of the workshop

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# HealthyAir project focus

- **Effects of building products on indoor air quality and on the health and comfort of occupants of indoor spaces**
- **Actions and methods to improve indoor air quality**



# What is the impact of building products on IAQ?

- **Building products potentially impact indoor air quality by the release of:**
  - Volatile compounds (VOC and formaldehyde)
  - Odours
  - Particles and fibres
  - Radiation
  - Mycotoxins (after fungal growth)? a need for standard methods



# Which impact of building products on health?

- **Depending on toxicological properties of released substances and/or agents and on exposure of occupants, possible effects are:**
  - **Discomfort**
  - **Reported symptoms (SBS)**
  - **illness**
  - **Severe effects (e.g. cancer)**
  - **Lack of productivity**



# Main actions for the improvement of IAQ

- **Effective ventilation of indoor spaces**
- **Limitation of emitting sources indoors:**
  - **European and national regulations**
  - **Voluntary actions**
- **Building design; holistic approach, note other sources**



# EU and national regulations

- **Substances related:**
  - Bans (e.g.: asbestos, PCP, etc.)
  - Limitations of the content (e.g.: paints)
- **What can we expect from CE marking?**
  - Validated standards; cover relatively few indoor products
- **What can we expect from REACH?**
  - Substitution of some substances



# Voluntary labelling schemes

- **Focussed on :**
  - VOC and formaldehyde emissions
  - Odours (not in all schemes)
  - Fibre release from ceiling tiles (DK)
- **Large experience in Nordic countries and Germany; initiatives for further harmonisation in progress**
- **Market relevance?**



# Voluntary labelling schemes

- **Good basis for harmonization:**
  - Based on same standards: EN ISO 16000 series
- **Is there a real political initiative for harmonization of labelling schemes?**



# Voluntary labelling schemes

- **Contribute to the reduction of emissions from building products**
- **A better (good) indoor air quality can be achieved when:**
  - **Low emitting materials can be selected**
  - **Ventilation is properly designed and operated**
  - **An IAQ guideline is set as the objective (e.g. Finland, Japan)**



# How to formulated requirements on IAQ

- **IAQ experts need to help people which are in charge of selecting building products and designing indoor environment for the adequate formulation of their requirements:**
  - **Terms of reference,**
  - **Smart and simple criteria,**
  - **Technical specifications.**



# **Indoor air should communicate outside**

- **The need for information exchange within the IAQ community but also outside the IAQ community is crucial:**
  - **Building sector**
  - **Global approach: sustainability**
- **The need for education of indoor air science towards other actors of the building sector (e.g. architects) is important.**



# IAQ: the real challenge?

- **Energy efficiency is the challenge of building industry: towards “zero carbon buildings”:**
  - Building design
  - More insulation
  - New (synthetic) materials
  - Less ventilation
- **Which impact in indoor air quality?**



# Do we link to sustainability?

- **Architects and industries already accept a need for sustainable buildings**
- **Will linking IAQ to these broader issues have a greater impact than IAQ only labels?**
- **Do something achievable now; don't wait for perfection!**