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HealthyAir – an overview

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HealthyAIR

- Network for actions and activities that address the effect of construction products on indoor air



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Objective

- To define, initiate and develop activities that improve indoor air quality and reduce exposure to indoor air pollution sources, in particular of construction products



Deliverables

- State of the art, identify gaps in knowledge and possible solutions to overcome these.
- Information exchange between “different worlds” (industry, regulators, users, researchers, DGs,..) on indoor air quality.
- An approach on how to provide three target groups with the information or tools they need to directly or indirectly improve indoor air quality.



Target groups

- **Producers of construction products:** an evaluation procedure to help them deliver/provide products that cause no harm or discomfort for the occupant
- **Architects and designers:** information to advise on selection of construction products
- **Building owners and end-users:** tips and tricks to improve the indoor air quality provided to relevant organisations for distribution

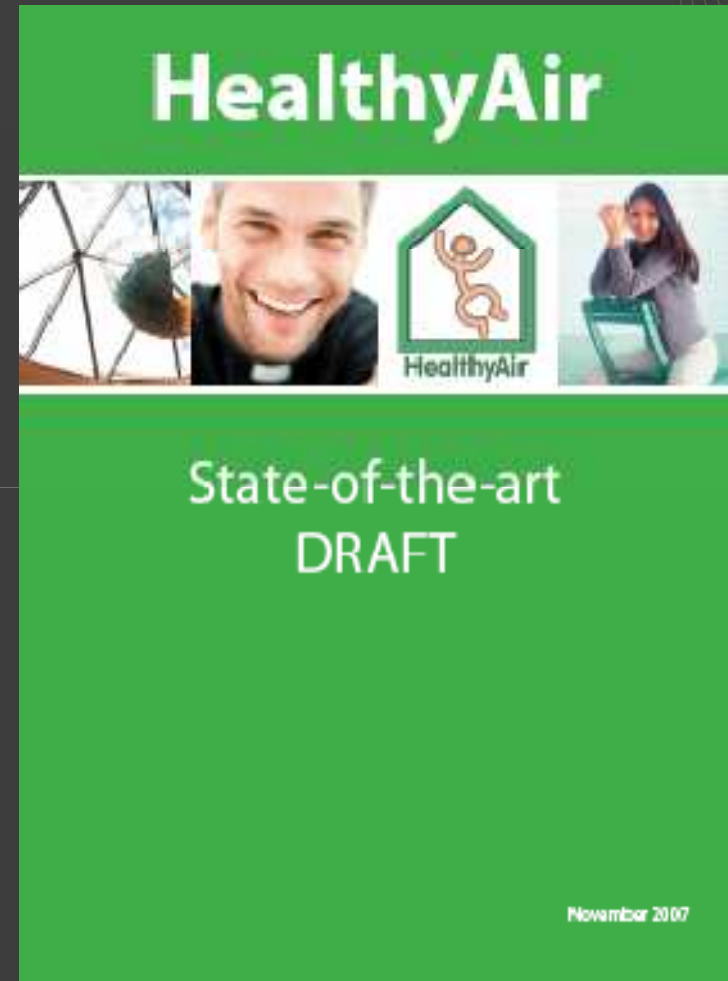
How achieve?

- **What information is required?** Year 1.5
 - Draft State of the art
 - Workshop 1
 - Interviews with target groups
- **In what form is the information needed?** Year 1.5 - 2.5
 - Draft approach for target groups
 - Workshop 2
- **What policies and actions to empower stakeholders to achieve improved IAQ?** Year 2.5 - 3
 - Final state of the art: including gaps in knowledge and possible solutions
 - Final approach for three target groups
 - National and international dissemination



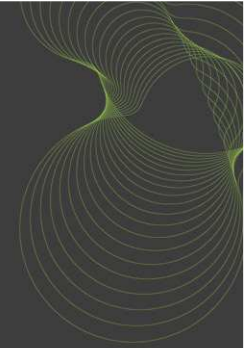
HealthyAir; State of the Art Review

- State of the art review on the effects of construction products on indoor air quality and assessment of these sources of pollution
- Contents of draft
 1. Introduction
 2. Sources
 3. Exposure and health effects
 4. Emission testing
 5. Strategies to reduce impact on IAQ



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Messages and issues from the first HealthyAIR workshop, 21 November 2007, Rotterdam



- **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

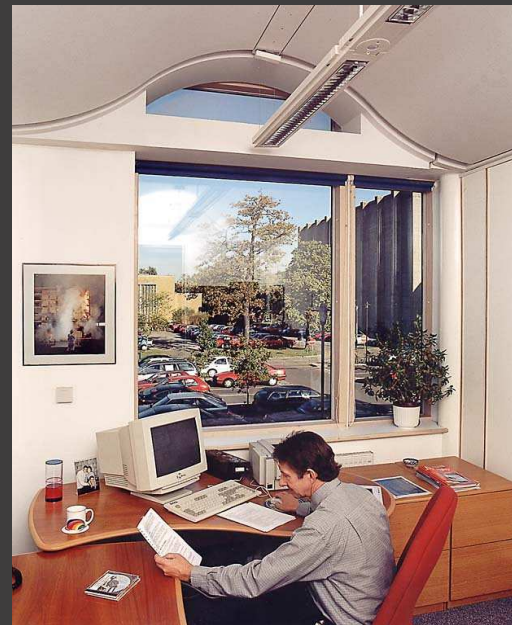
What impact of building products on health?

- 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 under the CPD?**
 - 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 formulate requirements on IAQ

- IAQ experts need to help people in charge of selecting building products and designing indoor environments to formulate appropriate 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 to educate other stakeholders e.g. architects in the building sector about indoor air sciences.



IAQ: the real challenge?

- Energy efficiency is the challenge of the building industry: towards “zero carbon buildings”:
 - Building design
 - More insulation
 - New (synthetic) materials
 - Less ventilation
- What 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!



What next?

- Interviews with target groups to identify information needs and views on IAQ (national and cross national groups)
- Finalise SOA with input from IAQ community
- Plan workshop for target groups



