

Impact, Compliance and Control of Energy Legislations: Point of View of REHVA

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REHVA is a professional organisation
representing more than 100 000
building services engineers

(heating, ventilating and air-conditioning for
energy efficient, healthy buildings)

from 28 European countries

**Dissemination of Knowledge and Research are
Focus Areas of Rehva**

Aspects of implementation and impacts of EPBD in member states: Legislation, Guidelines and Knowledge

- Country-specific legislation vs. harmonized standards
 - Delays in execution of CEN- standards
 - Different acts in member states exacerbate trading (consulters/industry generally)
 - Consolidation of EuP and EBPD
 - Lack of technical guidelines and knowledge of best practices
 - Building physicists have insufficient knowledge of HVAC systems
 - HVAC engineers have insufficient knowledge of building physics
- Importance of knowledge of standards and best practices

Let's build better buildings for Europe

Presentation of the BUILD UP initiative



- Inform and update public authorities, building professionals and building occupants about **the energy legislation for buildings**
- Transfer and **promote best practices of energy savings measures** in buildings

Target groups



Public authorities



Building professionals



Building occupants

Energy Legislation

Energy Efficiency

Web Portal

EU & National info
EPBD Database
Links

National info
Practical info
Links

Context
Simplified info

Database of
Cases
&
Tools

Your guide to
energy efficiency

We give you the opportunity to create or to be part of your community of interest

Advantages :

- Select and share the right information for your target group
- Identify relevant conferences
- Get known by others with similar interests
- Create your own newsletter with focused information
- Have a place for discussion

REHVA is response of communities:

- Energy Efficient Ventilation for Healthy Buildings
- Leading examples for public buildings



REHVA Congress and Publications



9 - 12 May, Antalya - Türkiye
WOW Hotels - Topkapı Palace

10th REHVA WORLD CONGRESS
“Sustainable Energy Use in Buildings”



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rehva
3E
Federation of European Heating and Air-conditioning Associations

rehva journal
European Journal of Heating, Ventilation and Air-conditioning Technology
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REHVA 63rd General Assembly
held in Amsterdam

IEE programme support for better efficiency of buildings
An Interview with Dr. Vincent Beruete

BUILD UP - The European portal for energy efficiency in buildings

and Air Conditioning Association



- ▶ INVITATION
- ▶ TTMD
- ▶ COMMITTEES
- ▶ INVITED LECTURERS
- ▶ TECHNICAL PROGRAM

We have the pleasure to welcome you to **Clima 2010**, the leading international scientific congress in the knowledge domain of HVAC in year **2010...**

▶ [more](#)

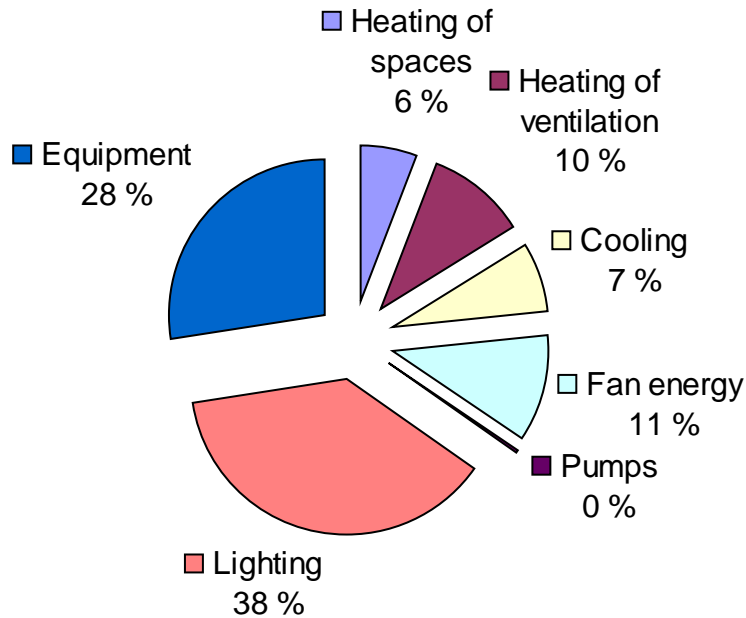


Aspects of implementation and impacts of EPBD in member states:

Energy Efficiency

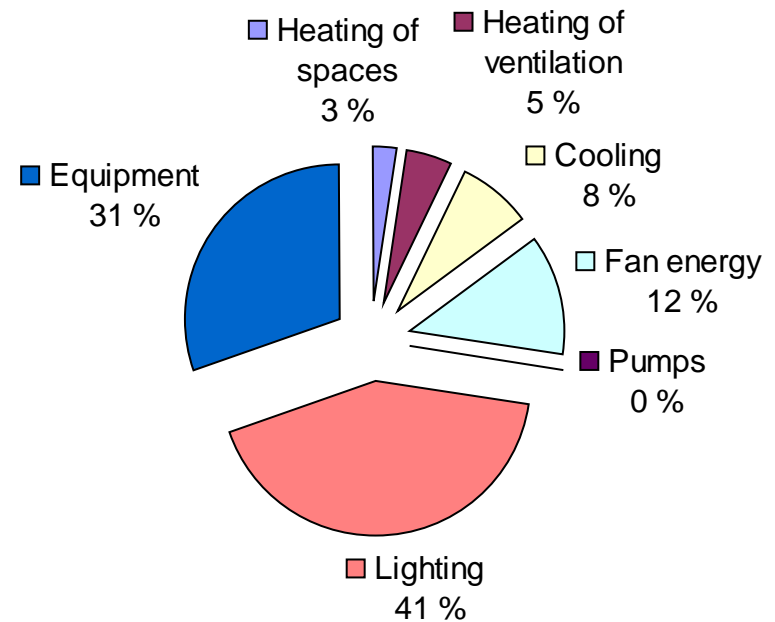
- Different methods and input values in energy calculation
 - Energy statistics are not comparable in member states
 - Understatement of the meaning of mechanical systems in energy saving
 - The role of mechanical systems in primary energy consumption
- The focus should be on electricity and energy saving measures of mechanical systems

Delivered and Primary Energy Consumption



Delivered energy 77,7 kWh/m²,a

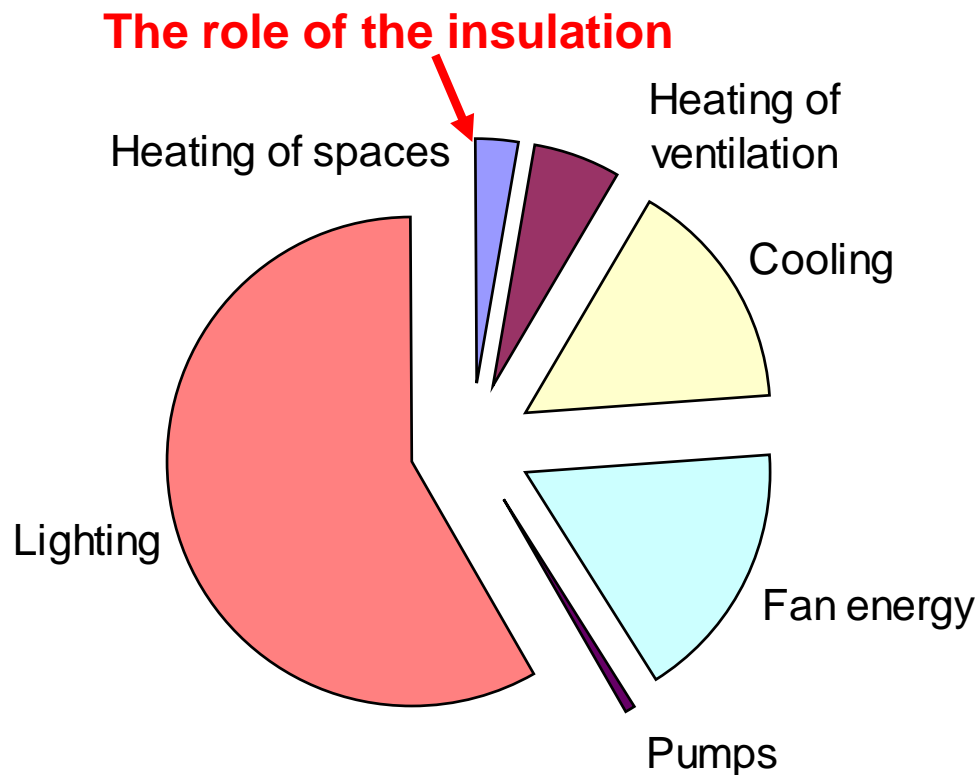
HVAC + lights: 48,9 kWh/m²,a



Primary energy 175,4 kWh/m²,a
(Primary energy factors: Gas 1 , Electricity 2,5)

HVAC + lights: 125,9 kWh/m²,a

Improvement in Primary Energy Efficiency: Focus should be on Building Services



Aspects of implementation and impacts of EPBD in member states:

The meaning of Ventilation

- Underestimation the meaning of ventilation in energy consumption
 - Ignorance of possible productivity effect of indoor air quality
 - Health effects of indoor air quality is not really realized
- **Healthy, productive, comfortable indoor environment should be the main focus: buildings are for people**

Sustainable Living Environment

Energy	
Manufacturer Model	Fridge-Freezer
<p>More efficient</p> <p>Less efficient</p>	A
Energy consumption kWh/year <small>(Based on standard test results for 24h)</small>	325
<small>Actual consumption will depend on how the appliance is used and where it is located</small>	
Fresh food volume l	190
Frozen food volume l	126

Noise (dB(A) re 1 pW)	
<small>Further information is contained in product brochures</small>	
<small>Norm EN 153 May 1999 Refrigerator Label Directive 94/2/EC</small>	

ENVIRONMENT:
Use of energy
and other
resources

VS.

WELLBEING:
Healthy,
productive,
comfortable
indoor
environment



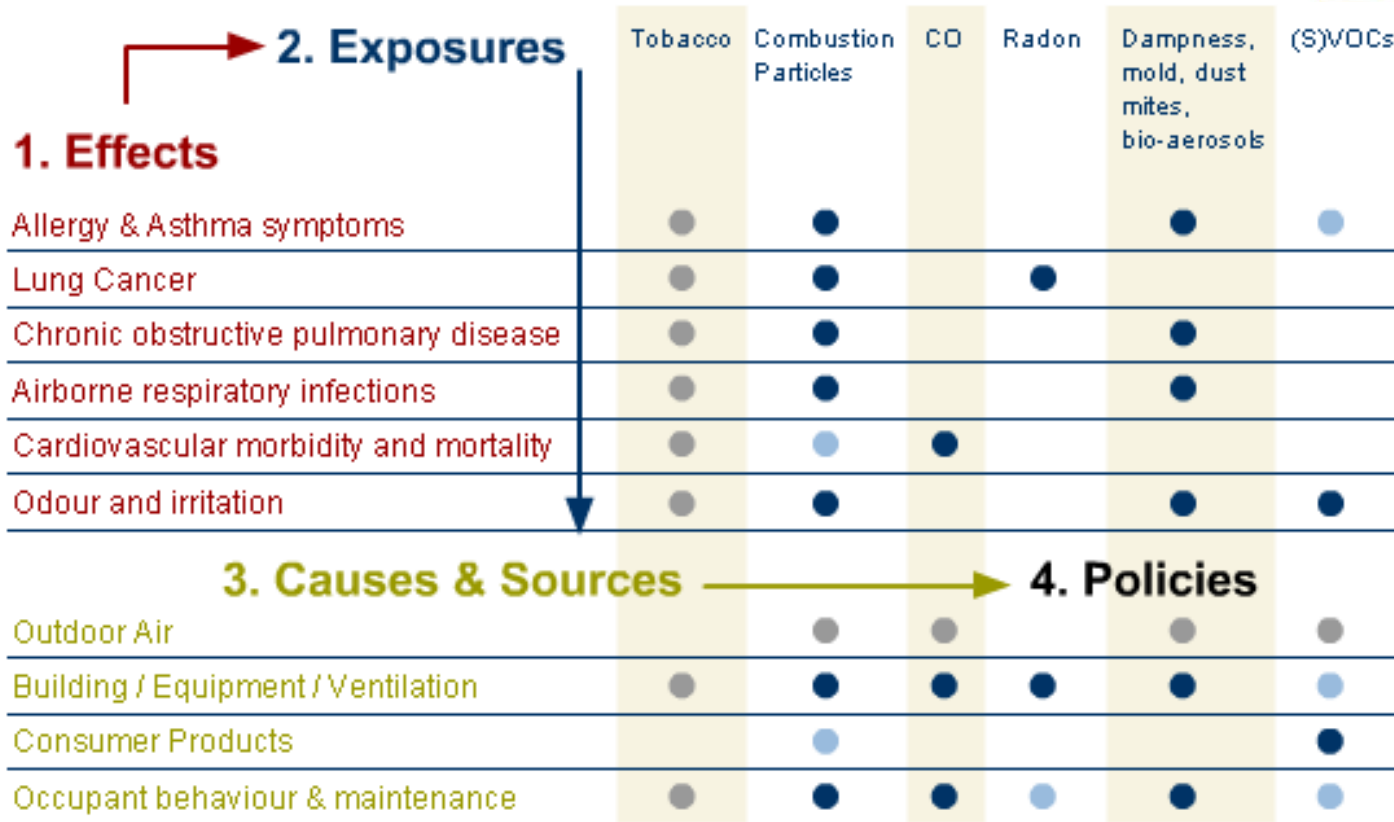
Care for Your People

- Improvements in work satisfaction and working environment have a significant impact on work performance and productivity.
- Sick leaves diminish and the risk of accidents and early retirements are better managed.



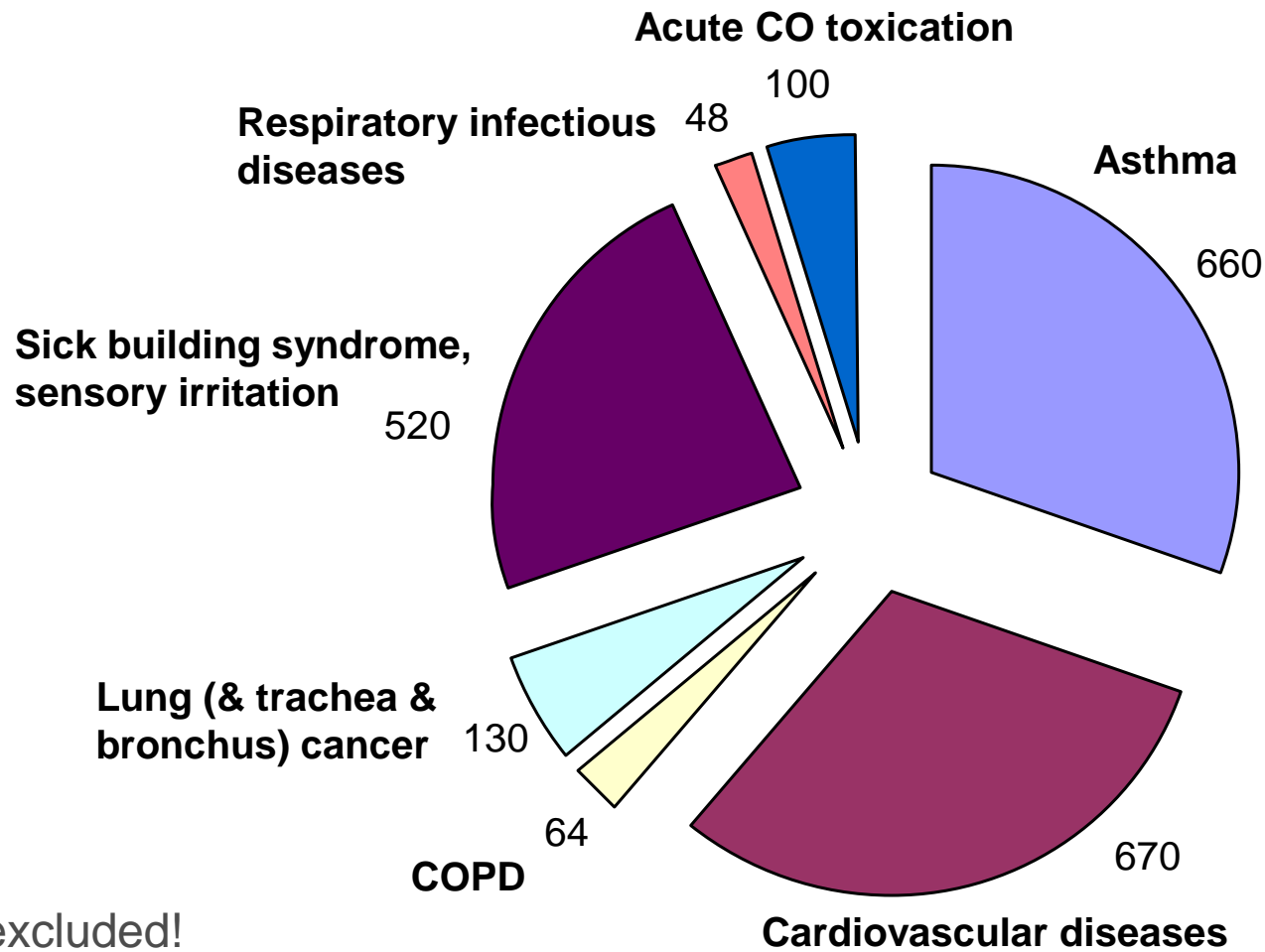


EnVIE approach

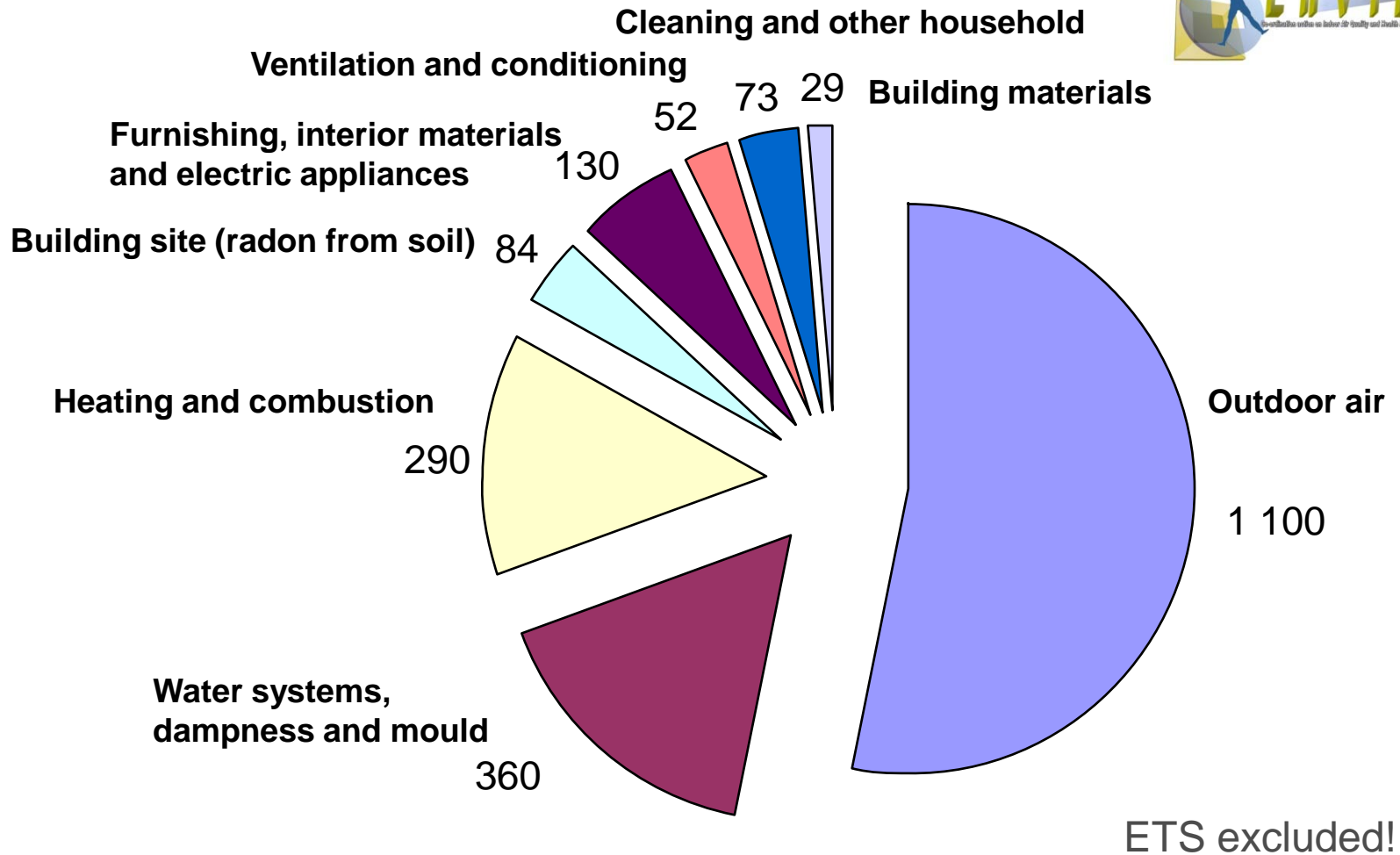


EnVIE is fully oriented to **public health**. Exposures, sources and policies are assessed against burden of disease (BoD) impacts.

Disease caused by indoor air contaminants in EU-27



Source of indoor air contaminants in EU-27



Conclusions

- Country-specific legislation, acts and practices should be better harmonized to create opportunities in energy saving conservation and consulting business
- The focus of energy saving measures should be on primary energy consumption where HVAC systems and specially ventilation are playing the key-role
- Energy efficiency and Indoor Environment Quality should be always considered simultaneously



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