

# **ENERGY EFFICIENCY IN BUILDINGS**

## **THE WAY FOR THE EU TO MEET ITS KYOTO COMMITMENTS**

**EuroACE**

**The European Alliance of Companies for  
Energy Efficiency in Buildings**

**June 15 2005, Brussels  
EUFORSE-INFORSE-EREF Seminar**

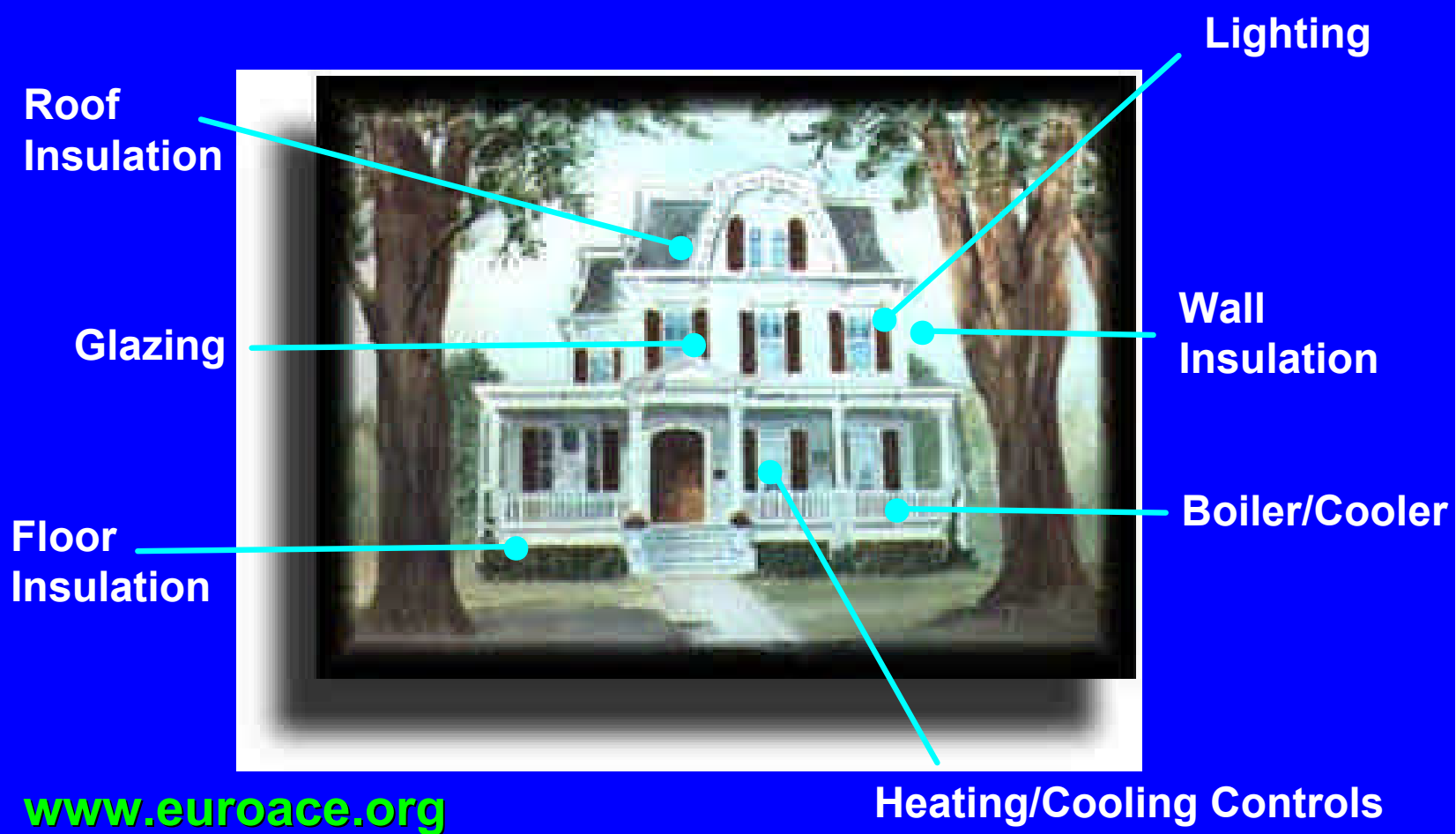
## **EuroACE**

In 1998, twenty-two of Europe's leading companies involved with the manufacture, distribution and installation of a variety of energy saving goods and services came together to form The European Alliance of Companies for Energy Efficiency in Buildings - otherwise known as the EuroACE project. Members employ half a million people and turnover is 150 billion euros across the EU.

## **EuroACE MEMBERS**

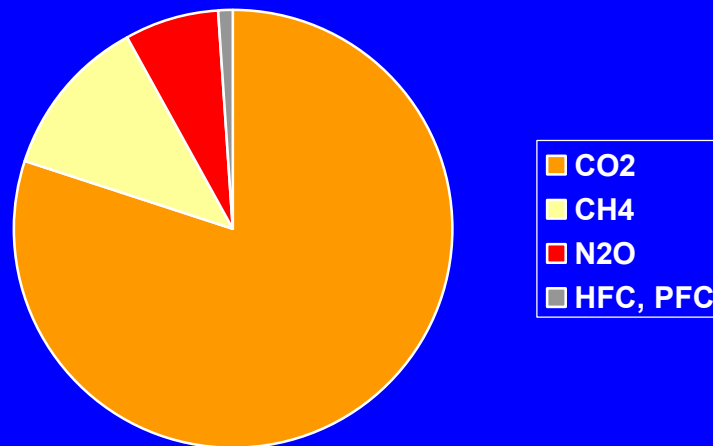
- Aereco
- Armacell International
- Bing
- BPB
- CRH
- Danfoss
- Eurima
- Giacomini
- Grundfos
- Honeywell
- Hunter Douglas
- Huntsman Polyurethanes
- Knauf Insulation
- Paroc
- Philips Lighting
- Pilkington
- Rockwool International
- Saint-Gobain Isover
- Siemens
- Skanska
- URSA
- VELUX

# **EuroACE - SECTOR REPRESENTATION**

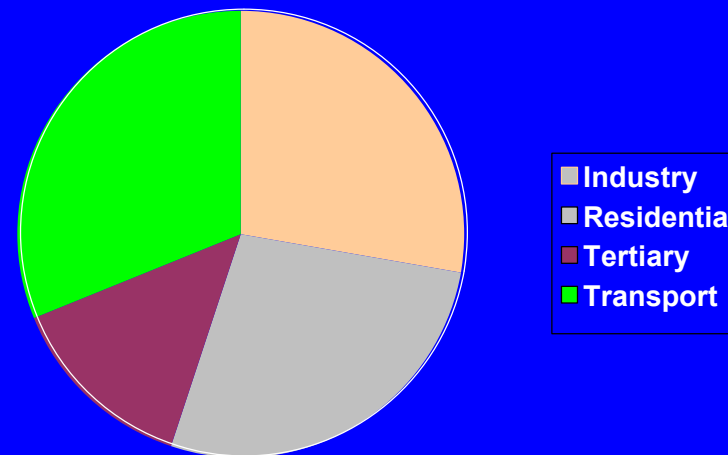


# IMPORTANCE OF THE BUILDING SECTOR

Greenhouse gases



Origins of CO<sub>2</sub> emissions



**Conclusion: Buildings account for 40-45% of CO<sub>2</sub> emissions**

## **BUILDING EMISSIONS - SOME BASIC FACTS**

- **Buildings are the single largest end users of energy in the EU**
- **40% - 45% (average) in each member state**
- **2/3 domestic – 1/3 commercial**
- **Space heating and cooling represents:**
  - **70% in homes**
  - **50% in commercial buildings**

## **BUILDINGS - PRESENT TRENDS**

- **Between 1985 and 1997 average home size increased from 83<sup>2</sup> to 87m<sup>2</sup>**
- **During the last decade, in the services sector, energy consumption per m<sup>2</sup> increased faster than total area occupied, at an annual rate of 1.3%**
- **Since 1997, 50% of the increase in total energy demand has arisen in the service and domestic sectors (balance from transport)**
- **Transport sector +39% (1990 - 2010); service and domestic sectors expected to be similar**

## **WHERE WILL THE REDUCTIONS IN EMISSIONS COME FROM?**

- |                      |                          |
|----------------------|--------------------------|
| • Thermal insulation | Up to 200 million tonnes |
| • Glazing            | Up to 120 million tonnes |
| • Controls systems   | Up to 80 million tonnes  |
| • Lighting           | Up to 50 million tonnes  |

**TOTAL**     Up to 450 million tonnes



## **EuroACE'S KEY MESSAGES**

- **Annual saving of up to 450 million tonnes of CO<sub>2</sub> by 2010 through building energy efficiency measures - more than 10% of 1990 emissions**
- **Implementation would create many jobs (estimated at 3.4 million job years)**
- **Almost all building energy efficiency measures are highly cost effective**
- **Measures undertaken during refurbishment are more cost effective**
- **In many instances the measures provide savings**

## **MORE OF EuroACE'S KEY MESSAGES**

- **Technologies are available now**
- **Technologies are appropriate for new and existing buildings - refurbishment of existing buildings is a critically important step**
- **Energy savings could enhance the viability of renewable energy generation technologies**
- **Measures are highly appropriate to an enlarged EU - extreme climates and under-insulated buildings**

## **GETTING THE EuroACE MESSAGE ACROSS**

### **Appointments to:**

- **EC Policy Advisory Committee on Energy**
- **European Climate Change Programme  
(Working Group on Energy Consumption)**
- **EC Task Group on Sustainable Construction  
and Energy Efficiency (Chairman)**
- **Security of Supply Panel**

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