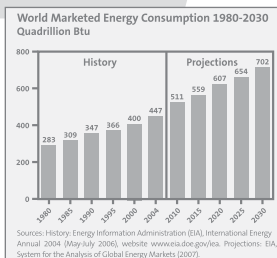


- The energy demand of the EU is expected to grow by 50% until 2030
- Europe's dependence on foreign suppliers could reach 70% in 2030
- 40% of Europe's energy is consumed by buildings, half of it could be saved by simple measures such as insulation of roofs, walls and floors in the EU-15, up to 80% in the new EU-12 countries
- 55% of the EU building stock was constructed before 1975 (consumption: 250-350 kWh/m²/a versus 30-50 kWh/m²/a for low-energy houses)
- Insulation accounts for about 78% of the total European energy reduction potential

Renovation for a comfortable living



Potential savings realized by thermal renovation

Heating energy demand of a typical one-family house	Very poor insulation	Uncomfortable insulation	Low-energy house	Multi-comfort house
BUILDING ELEMENT				
Roof or upper ceiling	0.90 W/(m ² K)	0.22 W/(m ² K)	0.15 W/(m ² K)	0.10 W/(m ² K)
insulation thickness	4 cm	22 cm	30 cm	40 cm
External walls (massiv wall of 25 cm)	1.30 W/(m ² K)	0.40 W/(m ² K)	0.20 W/(m ² K)	0.13 W/(m ² K)
insulation thickness	0 cm	6 cm	16 cm	30 cm
Sole plate	1.0 W/(m ² K)	0.40 W/(m ² K)	0.25 W/(m ² K)	0.15 W/(m ² K)
insulation thickness	0 cm	6 cm	10 cm	26 cm
Window	5.10 W/(m ² K) Single glazing	2.80 W/(m ² K) Double glazing, insulation glass (air-filled)	1.10 W/(m ² K) Double glazing, thermal insulation glazing	0.80 W/(m ² K) Triple glazing thermal insulation glass, special frame
Ventilation	Window ventilation, joints, leaky building envelope	Window ventilation, reduced number of joints, leaky building envelope	Controlled ventilation	Controlled ventilation with heat recovery
CO₂ emission	60 kg/m ² a	30 kg/m ² a	10 kg/m ² a	2 kg/m ² a
Energy consumption heating oil per m² living space and year)	30-25 liters	15-10 liters	4-5 liters	1.5 liters