



*Evaluation and monitoring of Energy Efficiency in
New Member Countries and EU-25*

“EEE-NMC »

**Energy efficiency trends for households in
EU New Member Countries (NMC's) and in
the EU 25**

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May 2007**

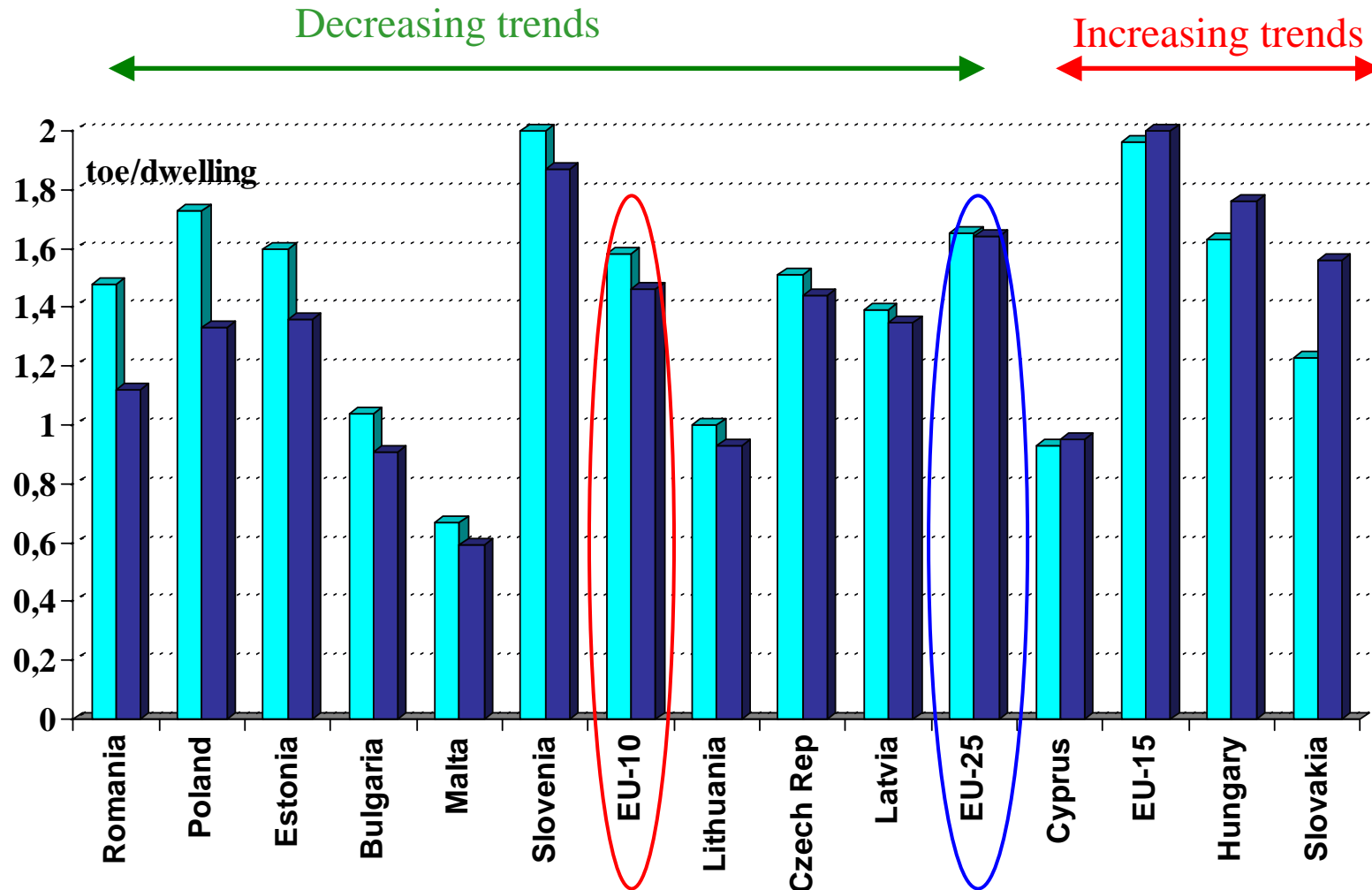
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Average consumption per dwelling

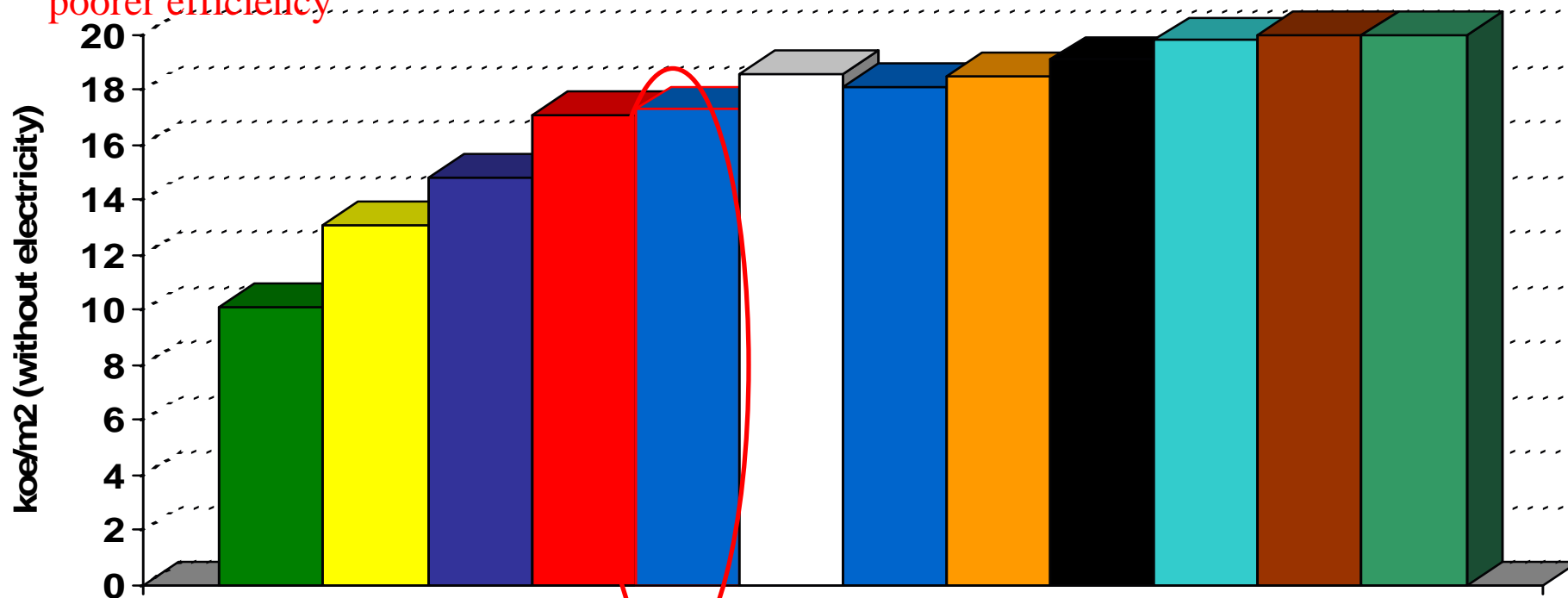
(scaled at EU-25 average climate)

Decreasing trends of the average energy consumption per dwelling in most NMC'; values in a range of 1 to 2 toe (outside Malta and Cyprus)



Average consumption per m2 for thermal uses (electricity excluded) (adjusted to EU 15 average climate) (2004)

- Only 3 countries with data on space heating consumption → strong limitation for assessing energy efficiency trends and levels => non electric consumption as proxy for thermal uses
- Differences in unit consumption per dwelling may be explained by different size of dwellings → need to compare consumption per m2.
- Per m2, ranking of countries change: low value may not necessary reflect high energy efficiency, but the result of price increase and restriction of comfort; high value may indicate poorer efficiency.

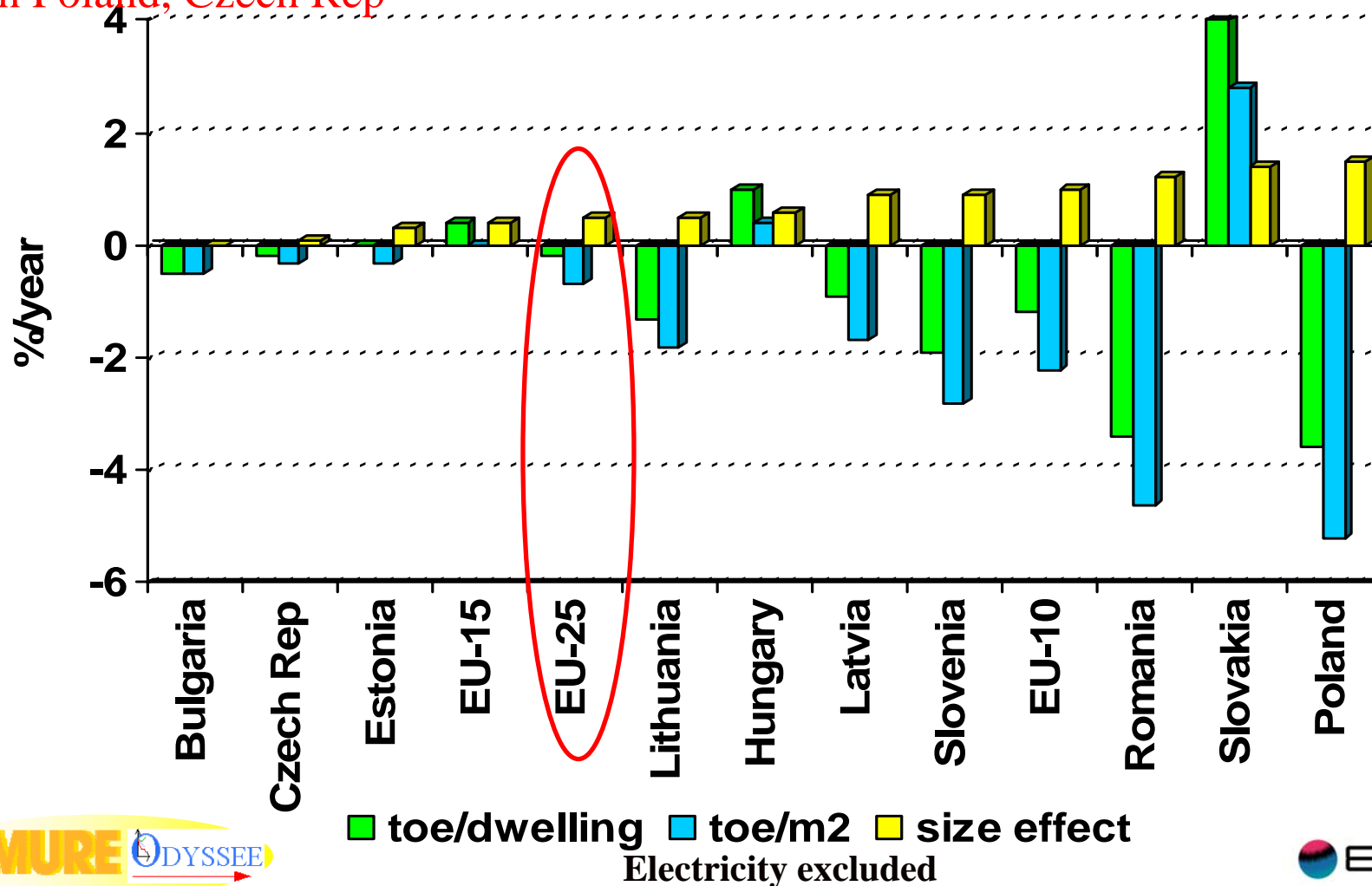


Bulgaria
 Lithuania
 Czech Rep
 Poland
 EU-10
 Slovakia

EU-15
 Romania
 Estonia
 Slovenia
 Latvia
 Hungary

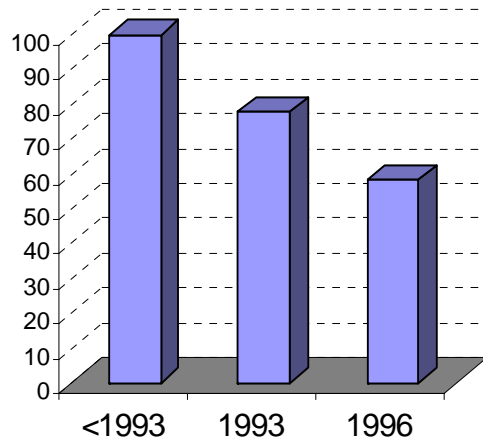
Average consumption per m2 versus consumption per dwelling for households for thermal uses (1996-2004)

Increase in the size of dwellings offset part of the reduction in the consumption per m2: around 30% in Poland, Czech Rep; in other words, without the size increase the reduction in the energy consumption per dwelling would have been 30% higher in Poland, Czech Rep

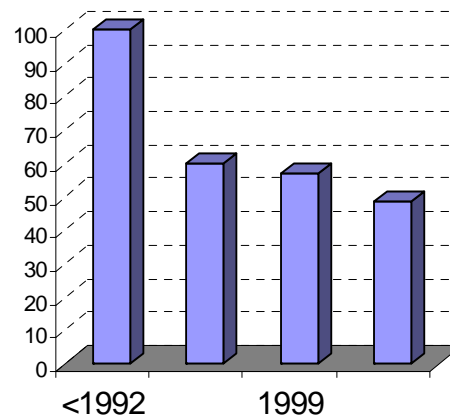


Regulation on building codes in EU NMC's

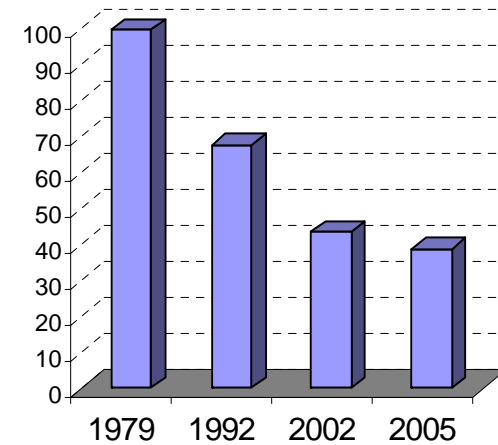
Poland



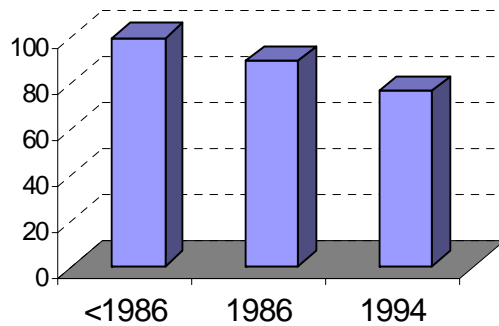
Lithuania



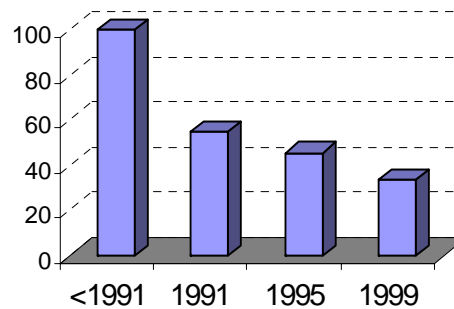
Czech Republic



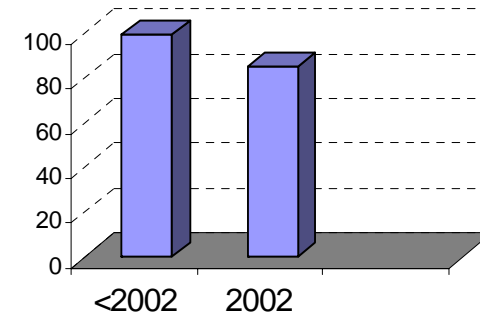
Hungary



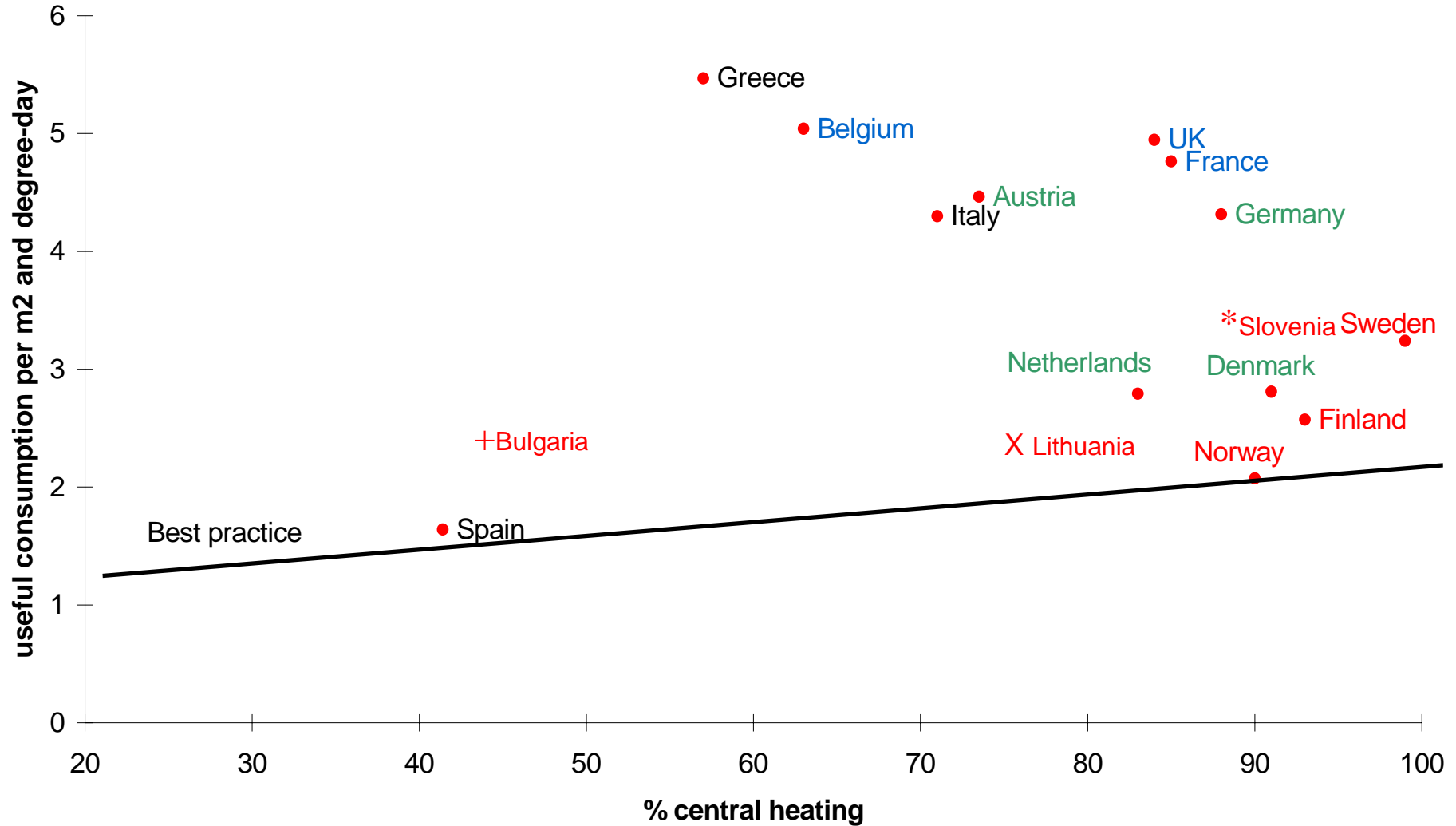
Estonia



Slovenia

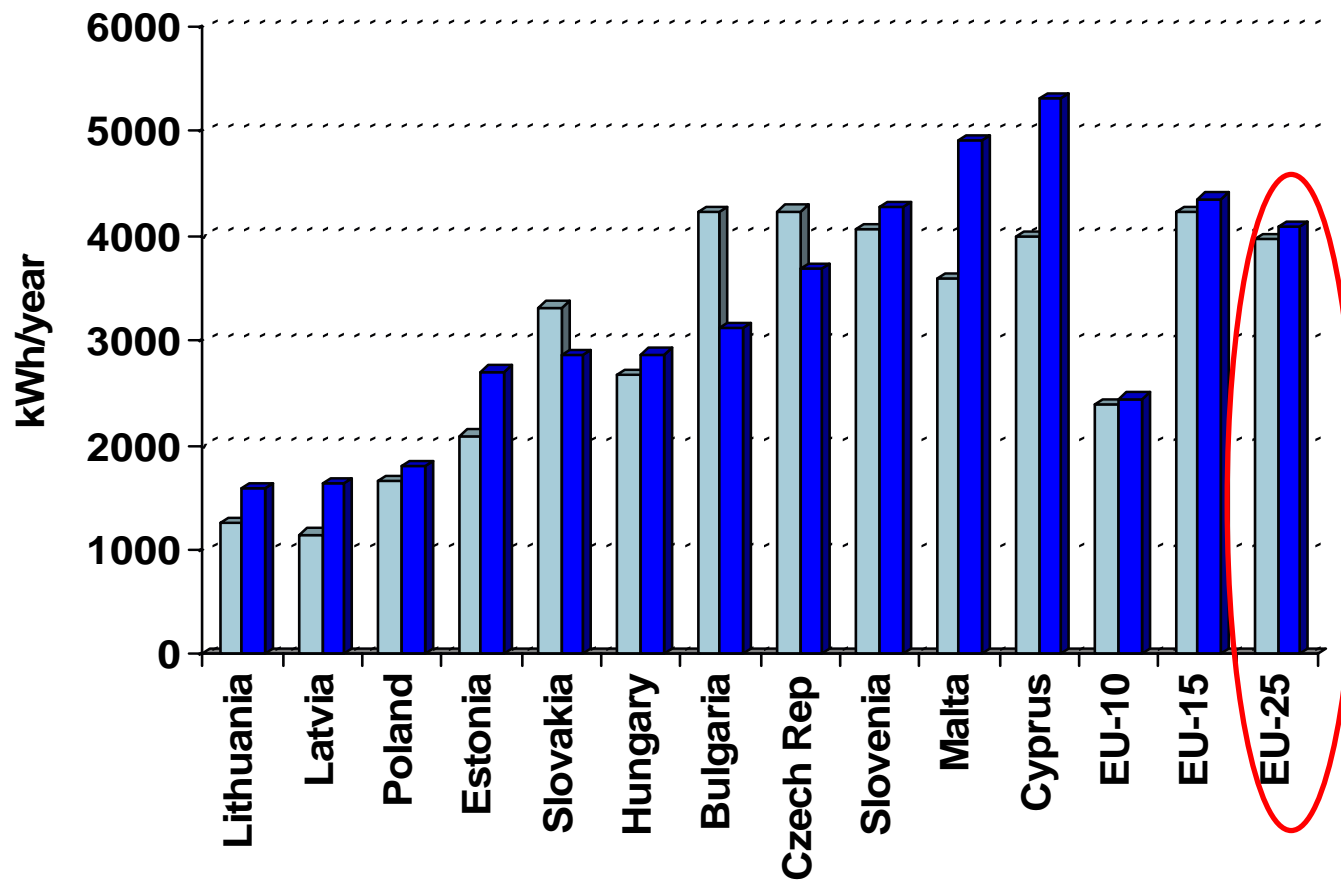


Household space heating : possible targets



Electricity consumption per dwelling

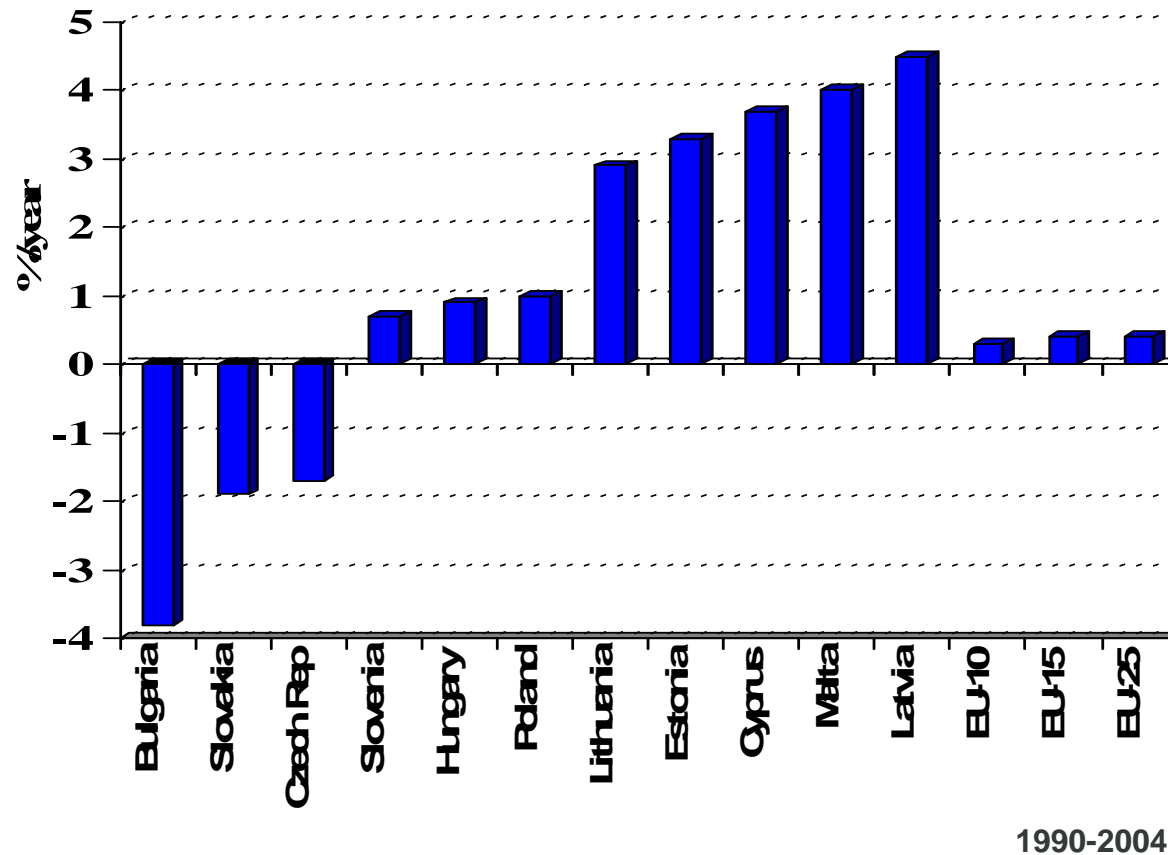
Very unequal level and trends of electricity consumption per household: rapid progression (3 to 4%/yr) in Malta, Cyprus, due to air conditioning, and in Baltic countries; low growth in Slovenia, Hungary and Poland (~1%/year); decrease in 3 countries (Slovakia, Bulgaria, and Czech republic), partly due to substitution of other fuels to electricity for thermal uses



Electricity consumption trend per dwelling

Very unequal progression across countries; low growth over the period 1990-2004 in UK, Sweden, Germany and Denmark

Since 2000, very low growth in Denmark, The Netherlands and UK, and to a lesser extent Finland; acceleration in Austria, Spain, Sweden & EU-15



1990-2004

Unit electricity consumption and price variations in the household sector (1996-2004)

