HIERARCHY OF ECOLOGIC INVESTMENTS

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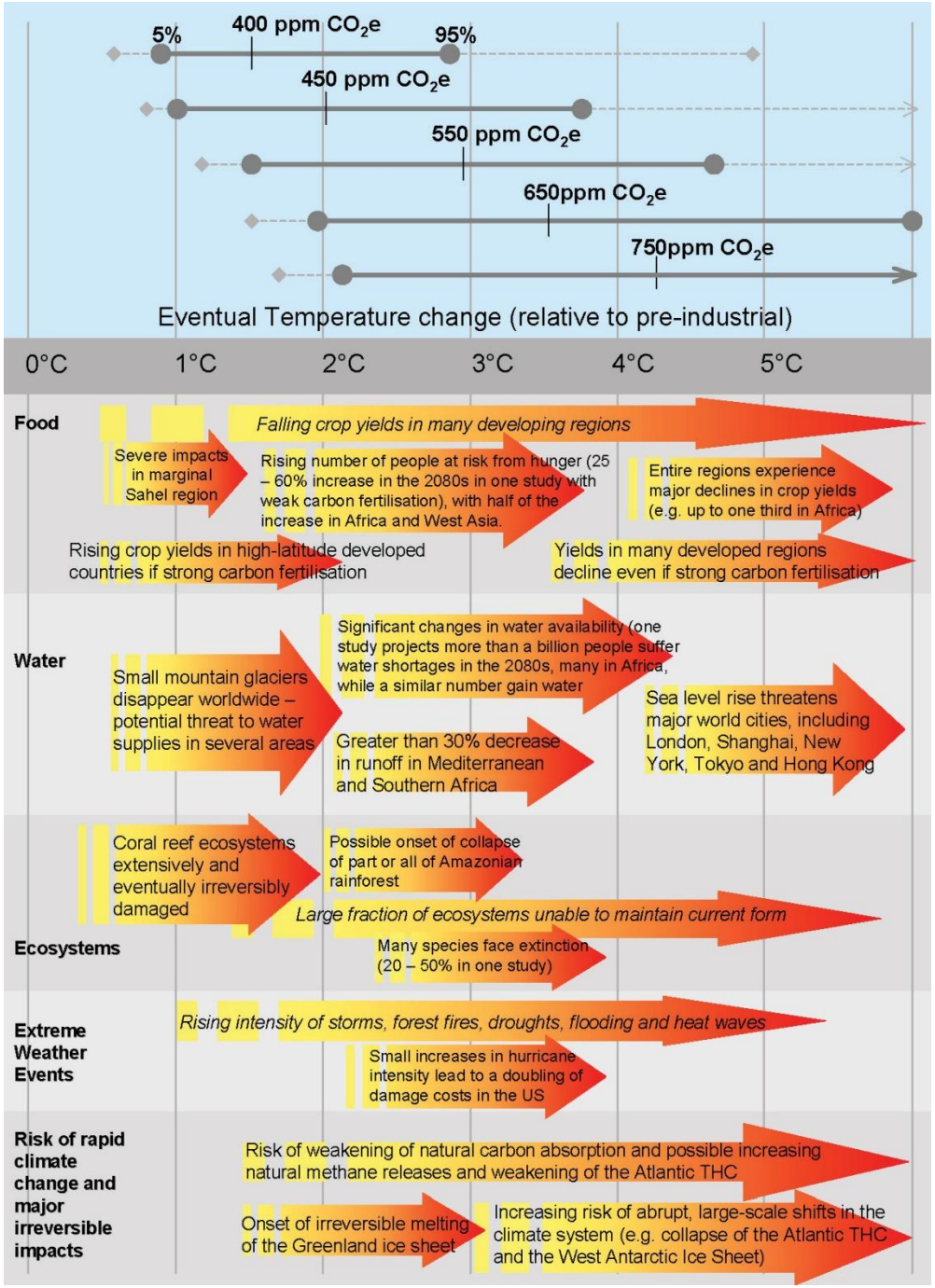
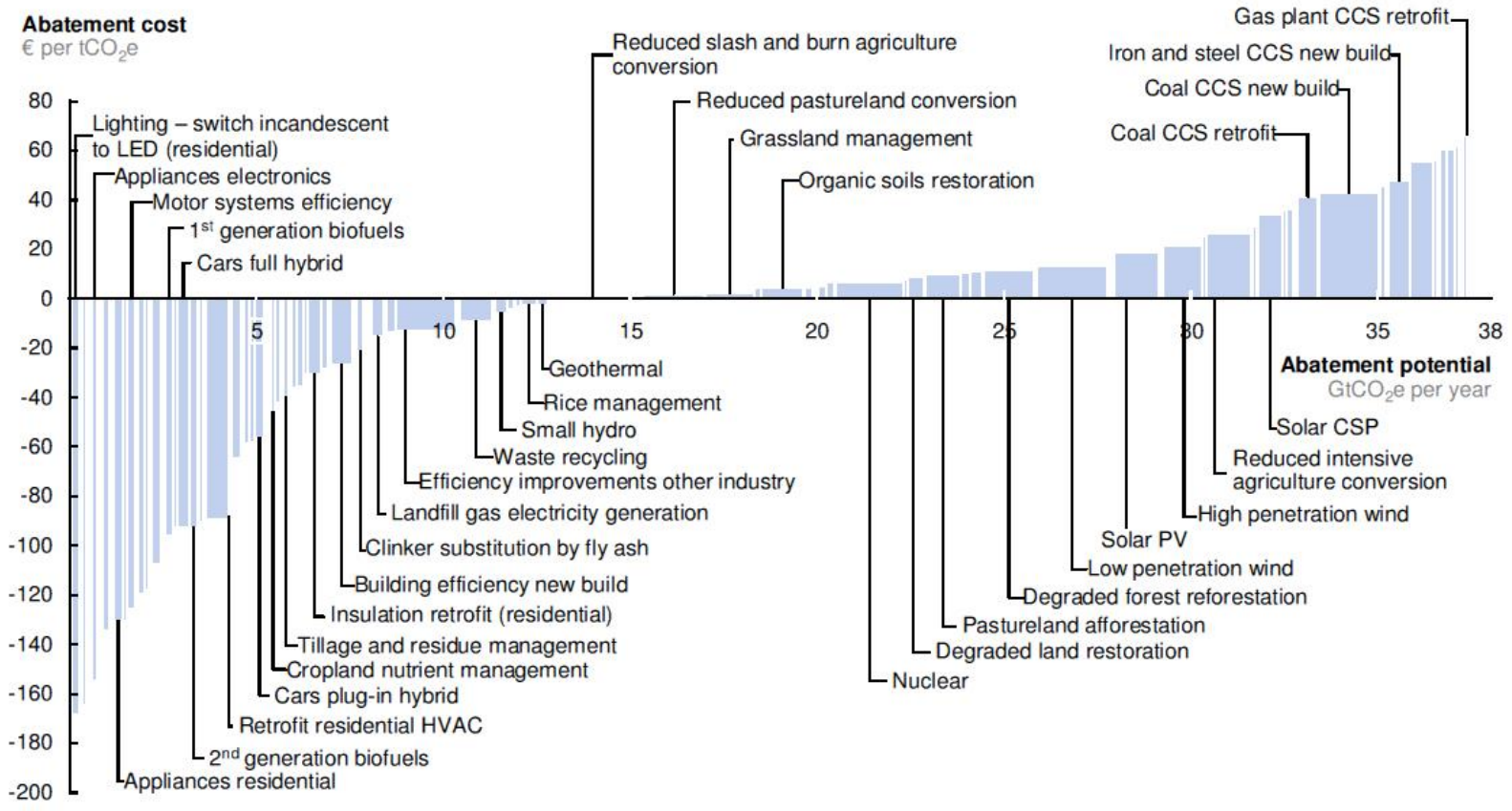
The climate change overall effects have been summarized in the final table of the Stern Review : it shows the increase of $C0_2$ concentrations, the eventual temperature change and the effects of each degree on the various components of the global environment.



V2.1 Global GHG abatement cost curve beyond BAU – 2030

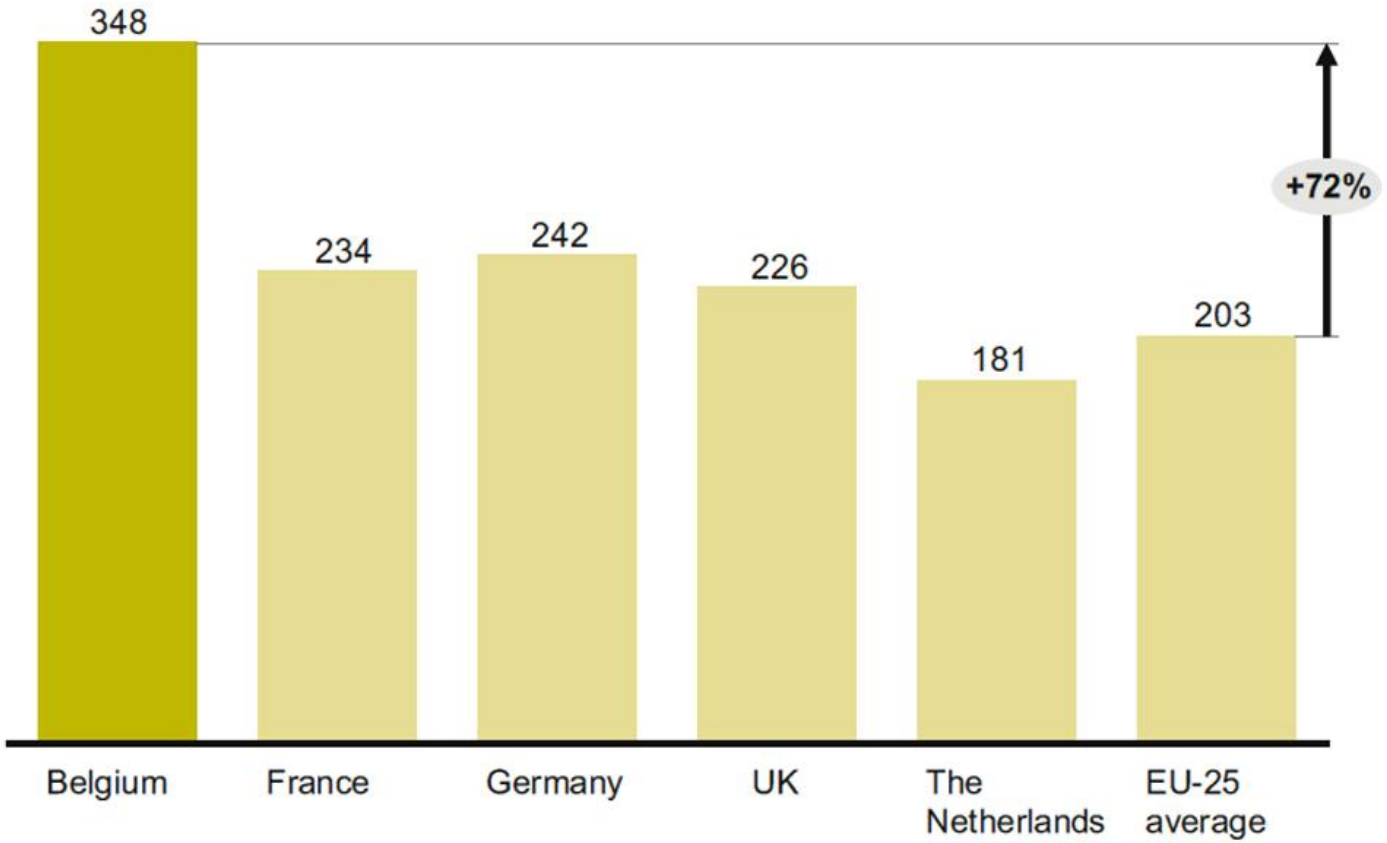


Note: The curve presents an estimate of the maximum potential of all technical GHG abatement measures below €80 per tCO_2e if each lever was pursued aggressively. It is not a forecast of what role different abatement measures and technologies will play.
Source: Global GHG Abatement Cost Curve v2.1

At world level, based on EIA figures, McKinsey in 2010 estimated that increased energy prize expectations would lead to a more favourable abatement configuration. The share of net profit measures (no regret measures) is of 30 %. 40 % cost less than 20 € per tCO_2e and 25 % would cost more than 20 € (source: McKinsey&Company, Impact of the financial crisis on carbon economics, 2010).

Average residential energy consumption in selected European countries

kWh/m², 2005

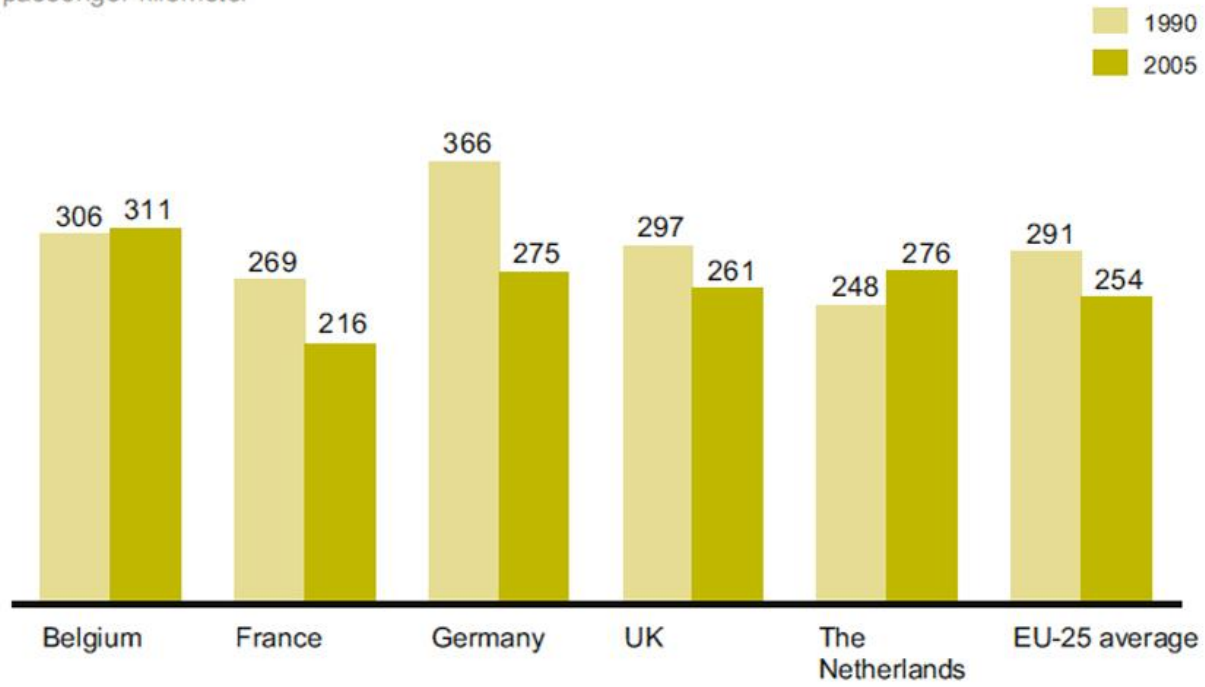


SOURCE: McKinsey Greenhouse Gas Abatement Cost Curve V2.0; NTUA (PRIMES forecast 2007)

As to the Belgian level, the figures indicate that the residential energy consumption is 72 % above the European average showing a vast potential for improvements within the framework of the global abatement cost curve.

Fuel consumption in Road Transportation in selected European countries

Boe/Million passenger-kilometer



1 Compound annual growth rate

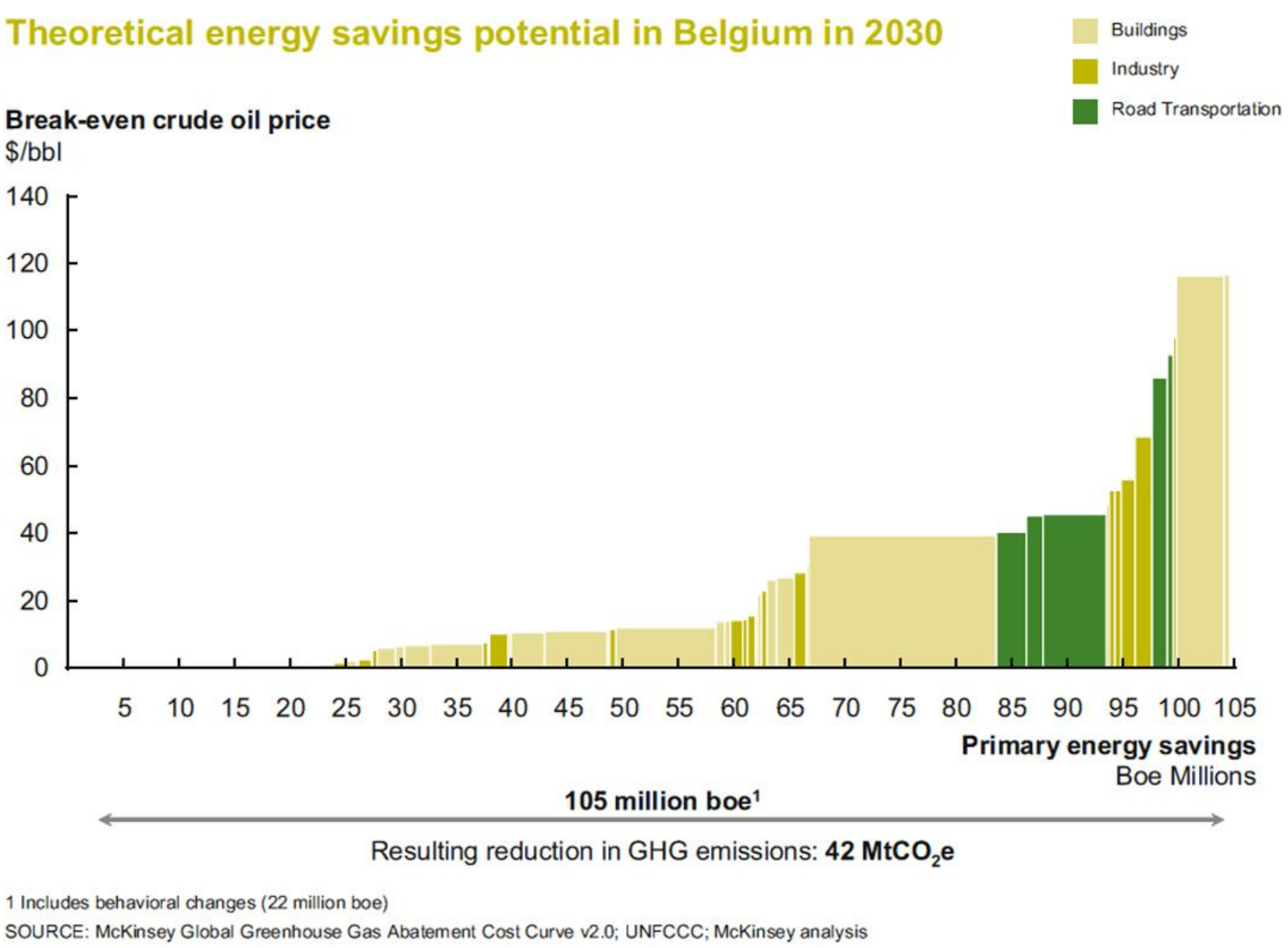
SOURCE: NTUA (PRIMES forecast 2007)

[12] Road infrastructure measures have not been included.

[13] Highly efficienct ICEs consume 5.4l/ 100 km or less.

[14] The acronym xEV includes electrified vehicles (EVs), full hybrid electric (HEVs) and plug-in hybrids (PHEVs).

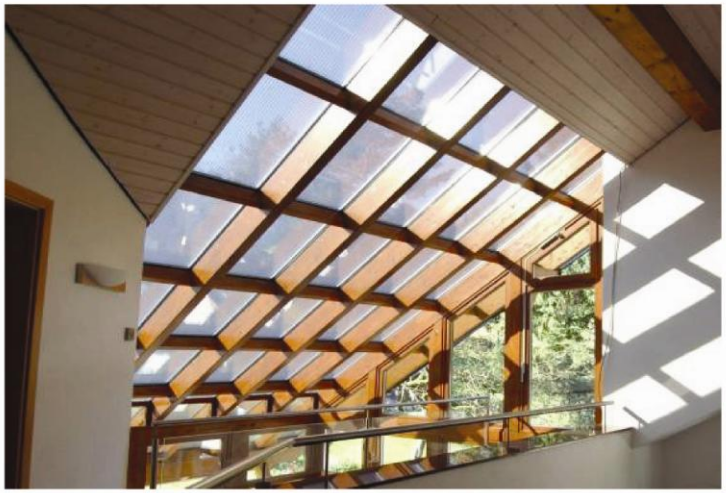
The same is true, also at Belgian level, for fuel consumption, as it is continuing to increase while it diminishes in Germany, also showing room for improvement.



The theoretical energy savings potential is shown for buildings, industry and road transportation.

In buildings, the best alternative kilowatts are the ones not used (“negawatts”), through increased energy efficiency and thriftier consumption. Therefore “Buildings are the powerhouses of tomorrow” (Jeremy Rifkin – http://www.foet.org).
Windows can be PV captors and micro energy savings may be adding up to a positive energy balance.
However the innovations in energy supply and demand can only be achieved if strong regulations give them an economic justification, namely the possibility to download the energy not locally used in the electricity distribution network. That is why Germany has been a pioneer in energy savings on new building.

Amorphous silicon transparent thin film modules



Source: Schott Solar

Fraunhofer Institut Solare Energiesysteme

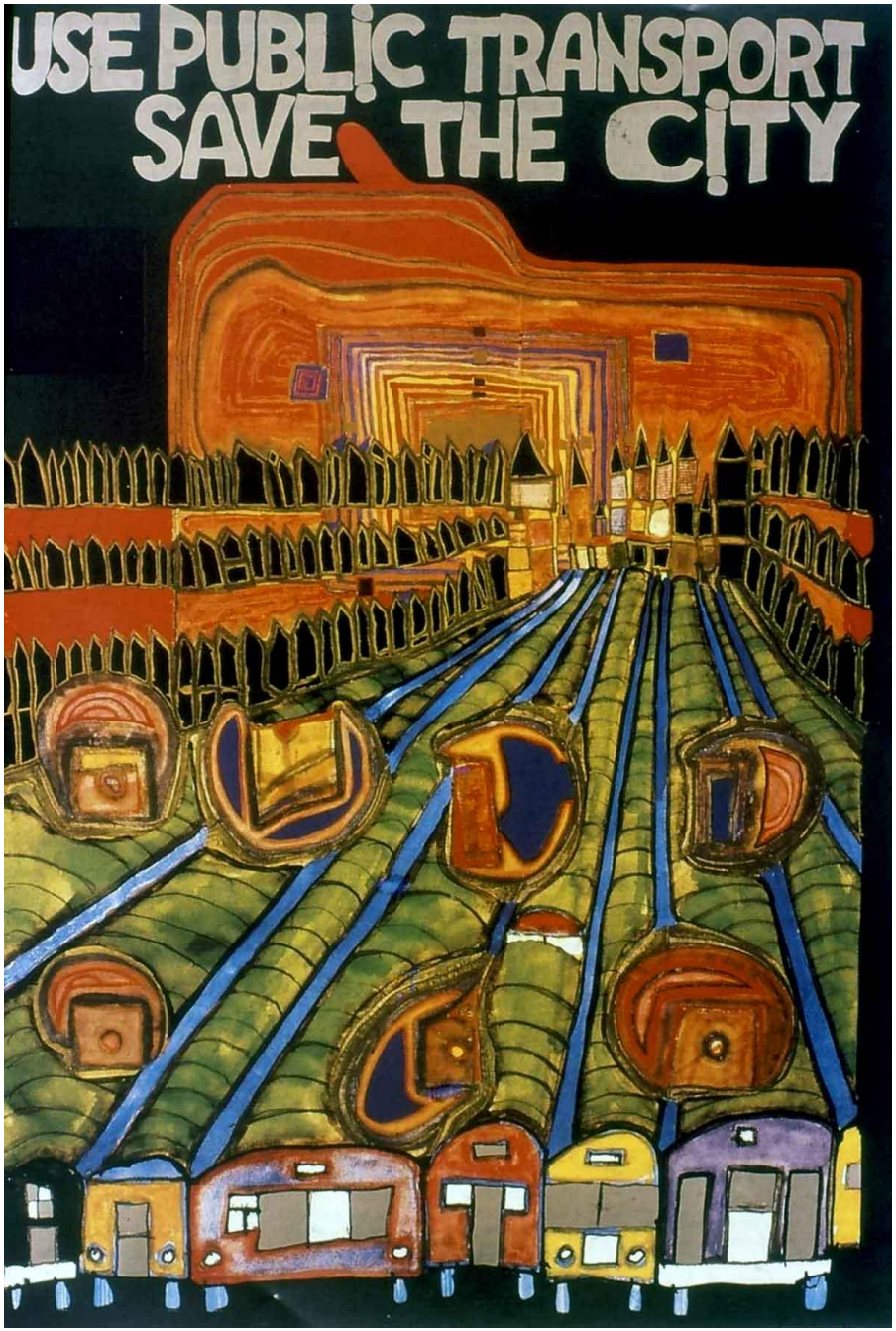
At urban level, the best form of energy savings resides in the tightness of neighbourhoods, making use of the energy incorporated in buildings and saving the energy that would be spent in demolition & reconstruction.
This is illustrated by the restoration of damaged building blocks in Berlin, such as Riemershof.

The interior of the blocks has been cleaned and has become open space.

Security of the occupants has been enhanced by closing the public space during the night.

Louvain-la-Neuve is a good example of a tight urban form extended to a whole planned unit development.

The Austrian painter Hundertwasser summarized the contribution of mobility to liveable cities in three posters illustrating the transport networks, the compact city as a prerequisite for sustainable mobility, and the enjoyment as key to liveability.



The compact city.

Enjoyment as a key to liveability.