

A Milestone Towards a Low Carbon Society: Germany's 40% Reduction Target by 2020

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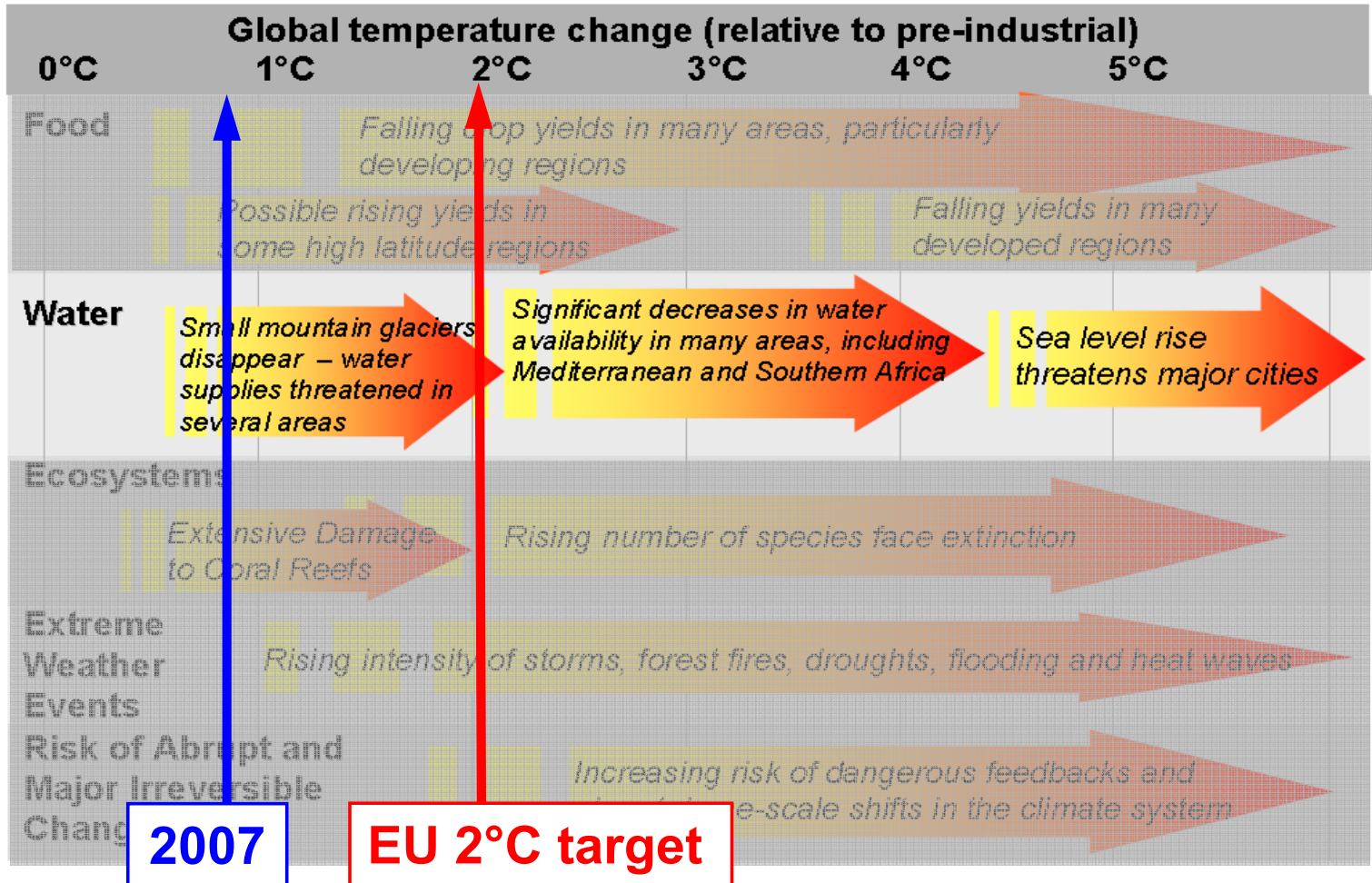
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1. Impacts & Targets
2. Achieved so far
3. Targets by 2020
4. 2020 and beyond



Key questions

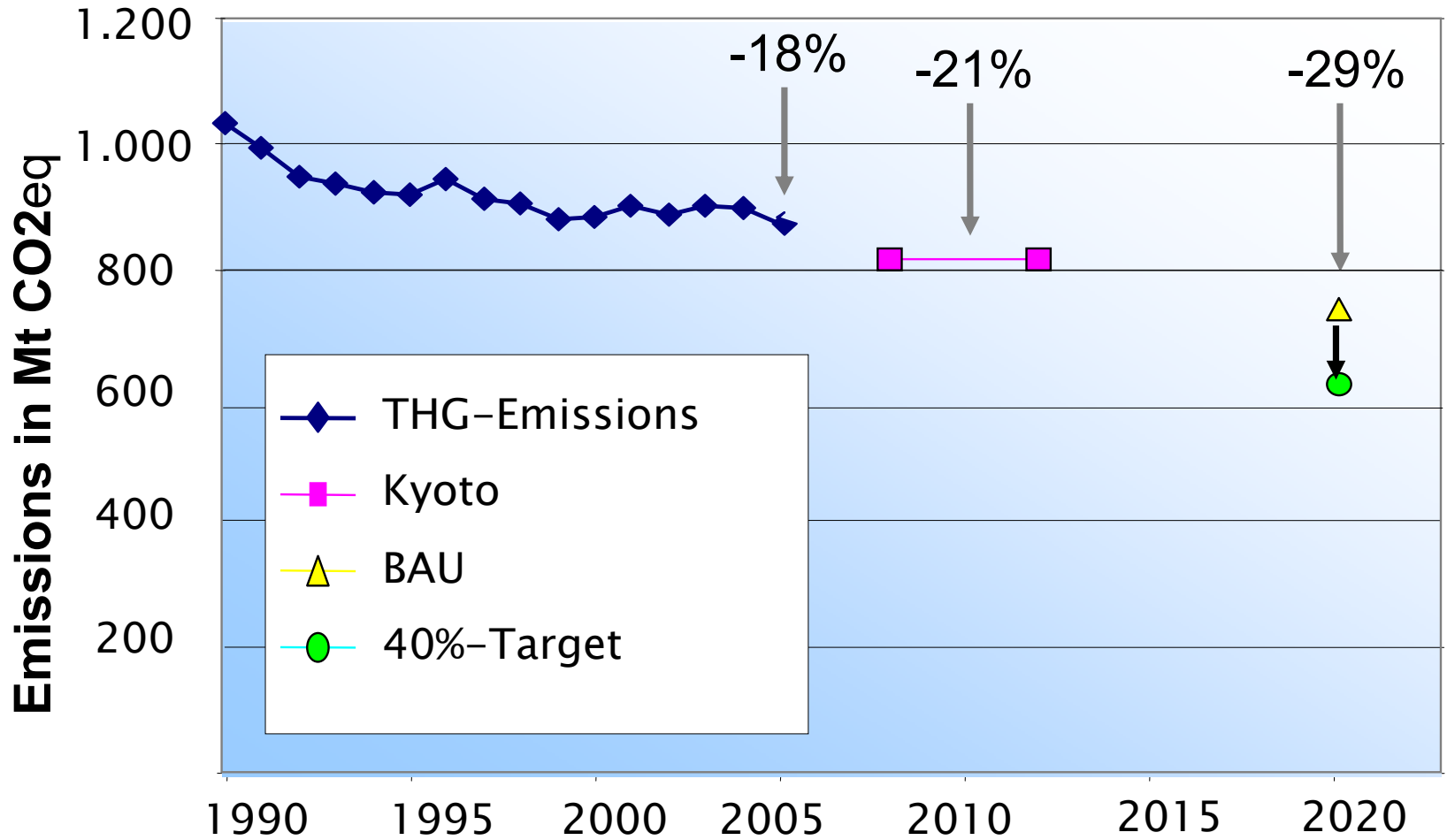
- Most sensitive/vulnerable sectors in transition to LCS?
- Which kind of inertia hinder transition?
- Opportunities for sectors and helpful policy measures?



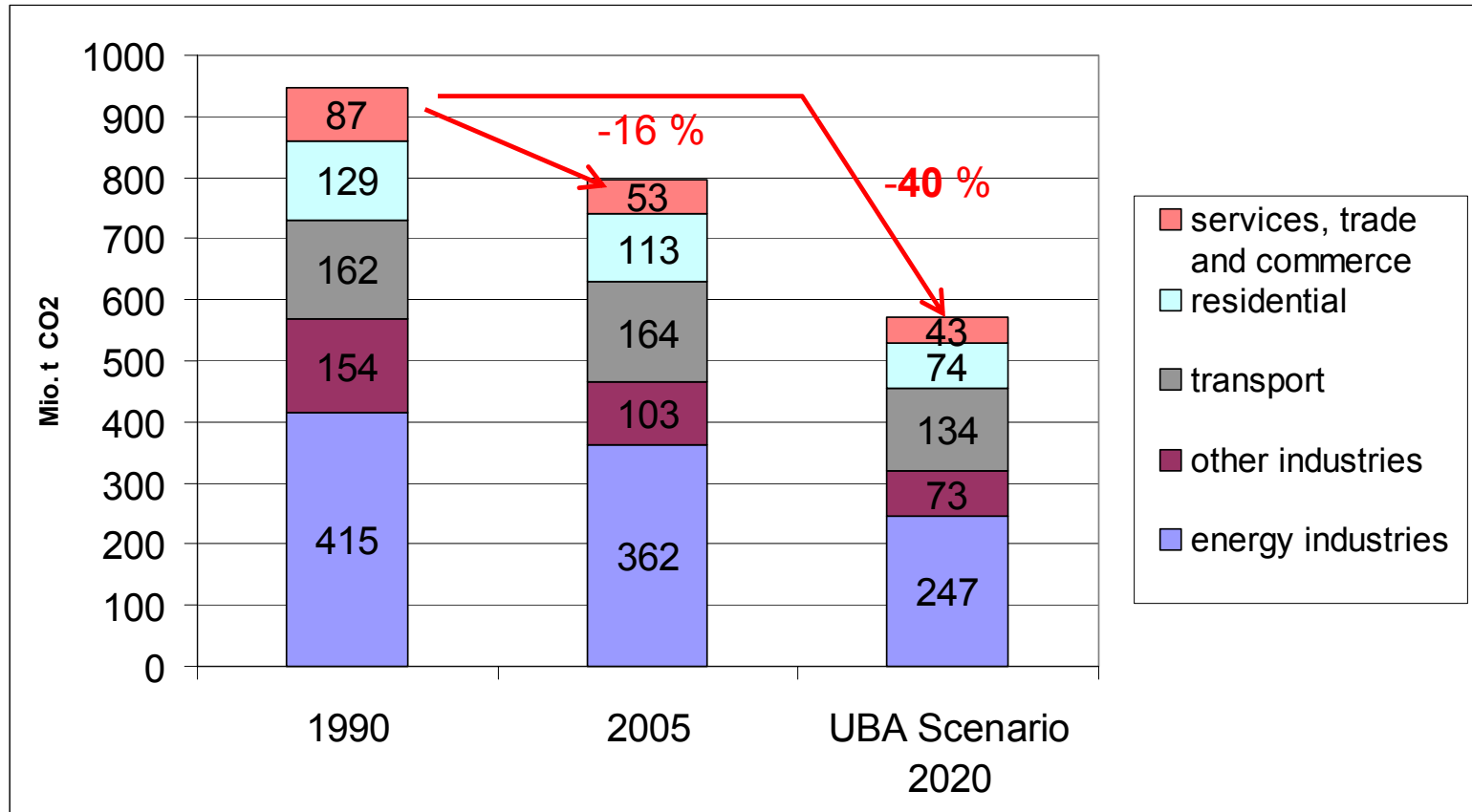
2° degree limit

Peak global GHG emissions around 2020, followed by a 50%-reduction by 2050 (compared to 1990)

- EU Council Conclusion March 2007:
Reduction by 30% until 2020;
Supported by German -40% target
- ICs to reduce GHG up to 80% comp. to 1990 levels
Sustainable development & economic growth in DCs



Energy related CO₂-emissions



Effective measures for emission reductions are at hand, technically feasible & economically sustainable.

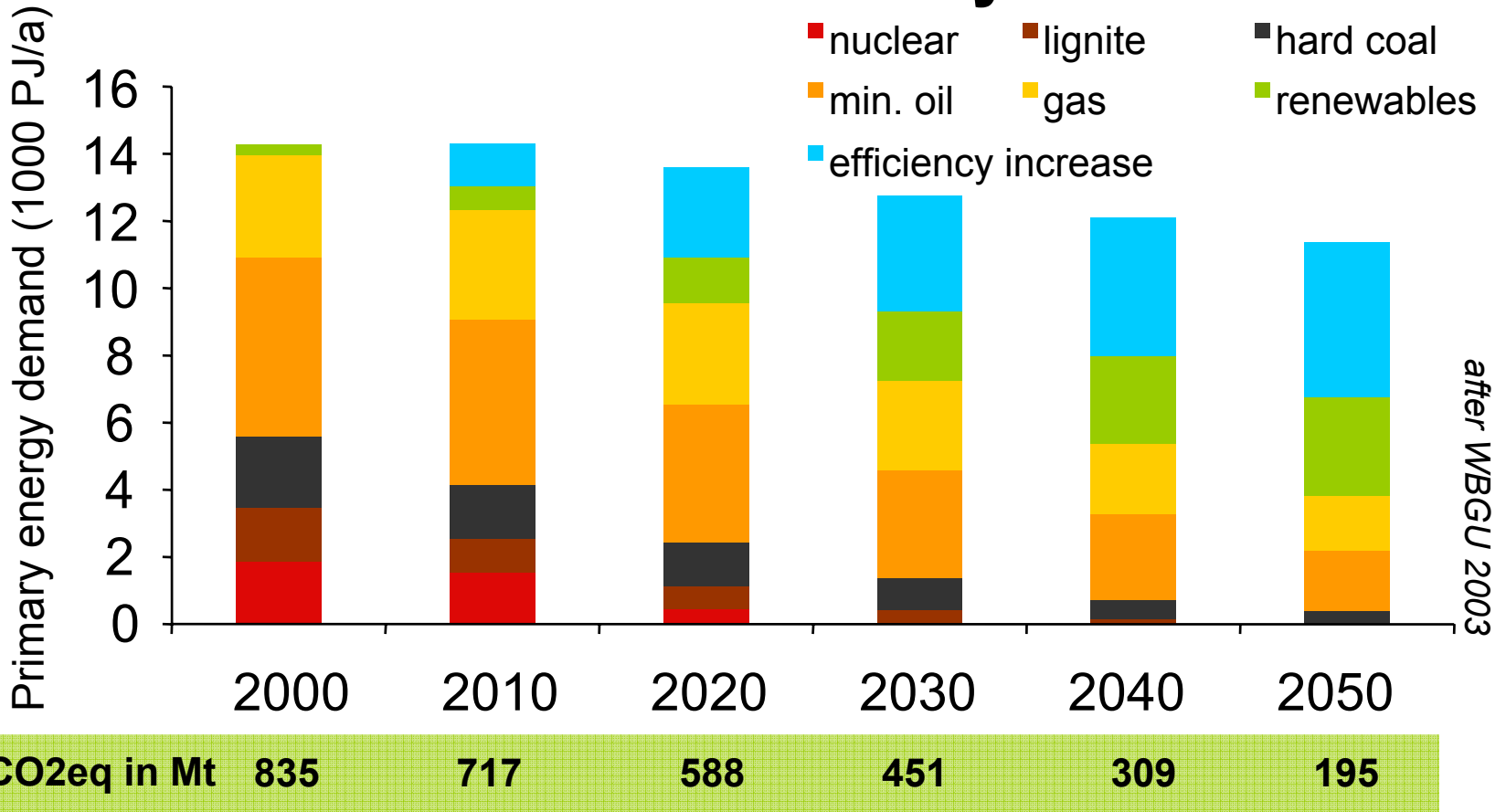
“Big 3” essential by 2020:

- Energy efficiency
- Energy savings
- Renewable energies

GHG reduction of 80% by 2050

- technically & economically viable
- Two element strategy:
 - Halving of the energy consumption
 - 50% share of renewable energies

Potential of REN and EEff by 2050



Discussion

- Most sensitive/vulnerable sectors in transition to LCS?
 - ⇒ national/global scale - (socio-)econ. & environmental; priorities, but which criteria??
- Which kind of inertia hinder transition?
 - ⇒ manifold „lock-in-effects“ - infrastructure; political will; ...
- Opportunities for sectors and helpful policy measures?
 - ⇒ Wide variety, e.g. econ. diversification - energy sector; ...; incentives, e.g. feed-in-tariff-systems; ...

Lead by example!

A model of ecological and handicapped-accessible construction!



[LINK](#)



Thank you for your attention!

further information:

www.umweltbundesamt.de/index-e.htm

Flyer: www.umweltbundesamt.de/uba-info-e/besucher/Flyer-UBA_english.pdf

Co-Benefits of Climate Change Mitigation

- Independence from energy imports
- no loss of comfort!
⇒ all mitigation with existing technologies!
- Early action
⇒ good position for exporting LC-Technologies
- No nuclear energy:
 - no reactor accidents
 - no nuclear waste
 - no proliferation of nuclear weapons

Integrated Climate & Energy Programme

Table 2: Costs and benefits of selected measures in the year 2020

Measure no.	Title of measure	Gross costs in billion euro	Annually saved (fossil) energy in billion euro	Reduction costs in euro/t CO ₂
1	Combined heat and power	0.003	-0.3	12.9
2	Electricity from renewable energies	5.55	4.2	27
7	Energy management systems and support programmes energy/climate	2.30	3.2	-90
8	Energy-efficient products - households/industry	0.21	4.2	-266
10A	Energy Saving Ordinance	8.43	10.30	-47
10B	Replacement of night-storage heaters	1.05	0.90	23
12	Modernisation programme to reduce CO ₂ emissions from buildings	2.43	3.20	-58
13	Energy-efficient modernisation of social infrastructure	0.49	0.26	163
14	Heat from renewable energies	4.42	3.5	77
15	Energy-efficient modernisation of federal buildings	0.06	0.080	-38
16	CO ₂ strategy for passenger cars	6.44	8.7	-128
17	Biofuels	0.00	-1.0 to 2.0	84 to 168
	Total	31	36.3	-26

Source: Fraunhofer ISI (2007)