

Energy efficiency first: It is the right thing to do!

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Partner of the Energy Efficiency Watch

Eufores Interparliamentary Meeting, Athens

24 November 2012





About eceee

- European membership-based, non-profit association
- Focus on *end-use* efficiency
- Provide evidence-based information
- Five-day Summer Study every two years in the South of France
- New biennial industrial Summer Study September 2012
- Arranges workshops and publishes reports
- Popular web site www.eceee.org



Focus of my talk

- 1) Why energy efficiency?
- 2) How much can it deliver?
- 3) But can we afford it?
- 4) What's needed to make this happen?
- 5) The Critical Mass problem (if it is so good, why hasn't it taken off yet?)
- 6) Understanding human behaviour will help us create better policies

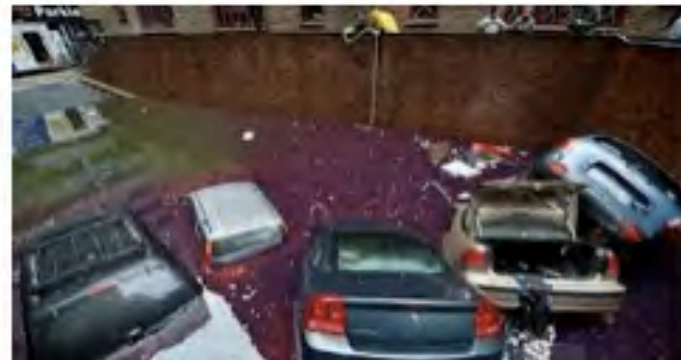
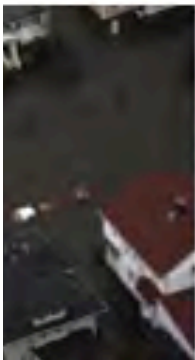
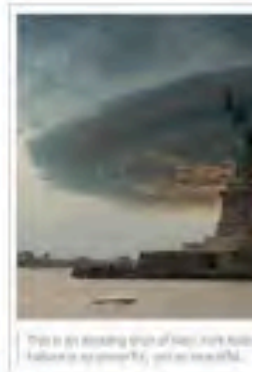


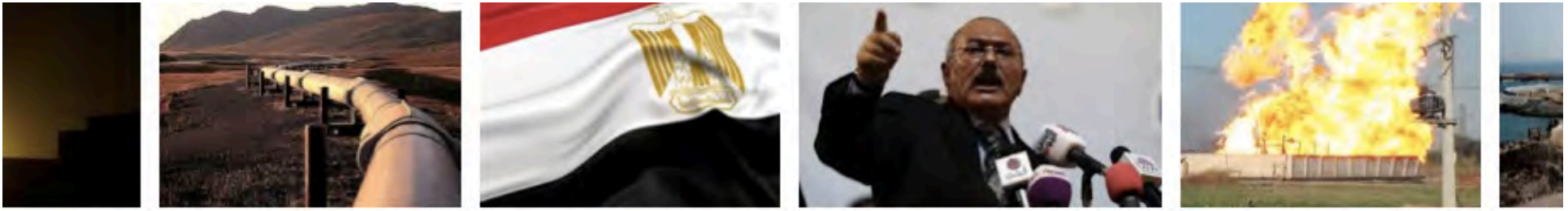
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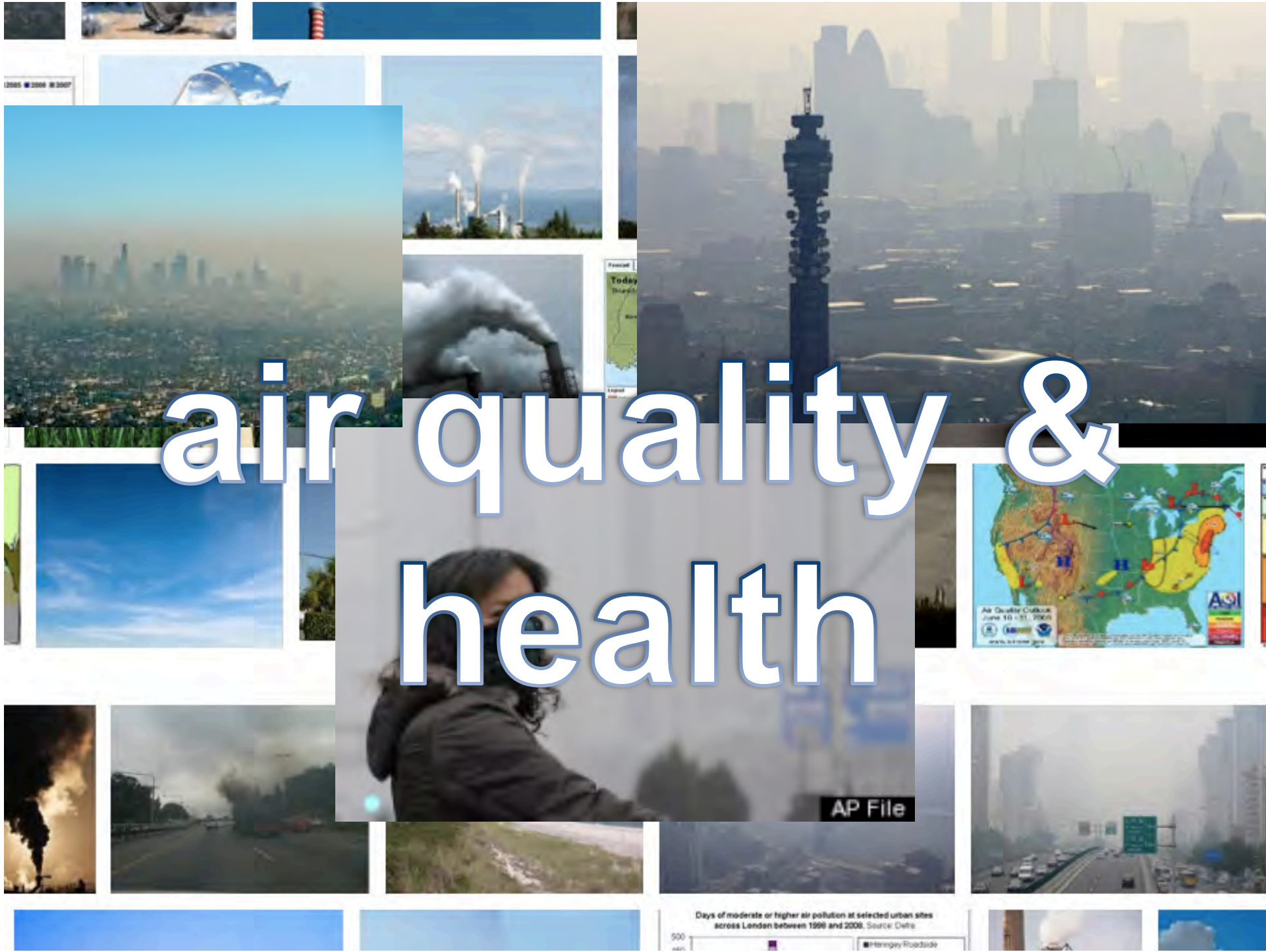


climate protection





air quality & health



2005 ■ 2006 ■ 2007

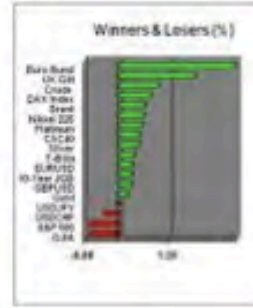
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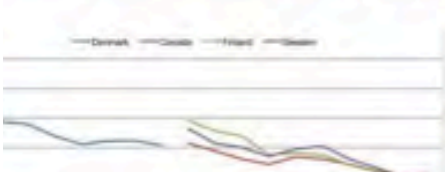
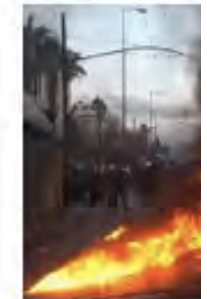
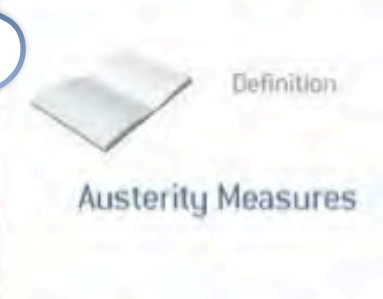
Days of moderate or higher air pollution at selected urban sites across London between 1990 and 2008. Source: Delta





2

economy & jobs



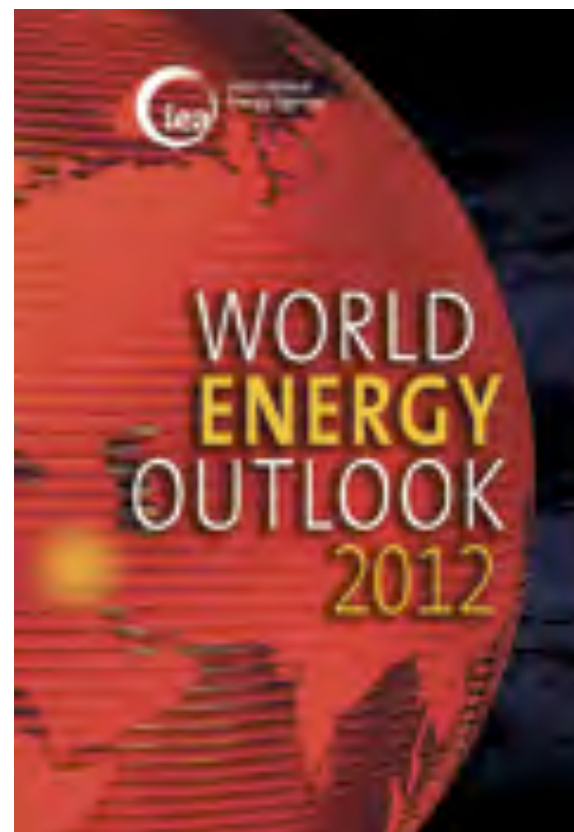


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IEA World Energy Outlook 2012

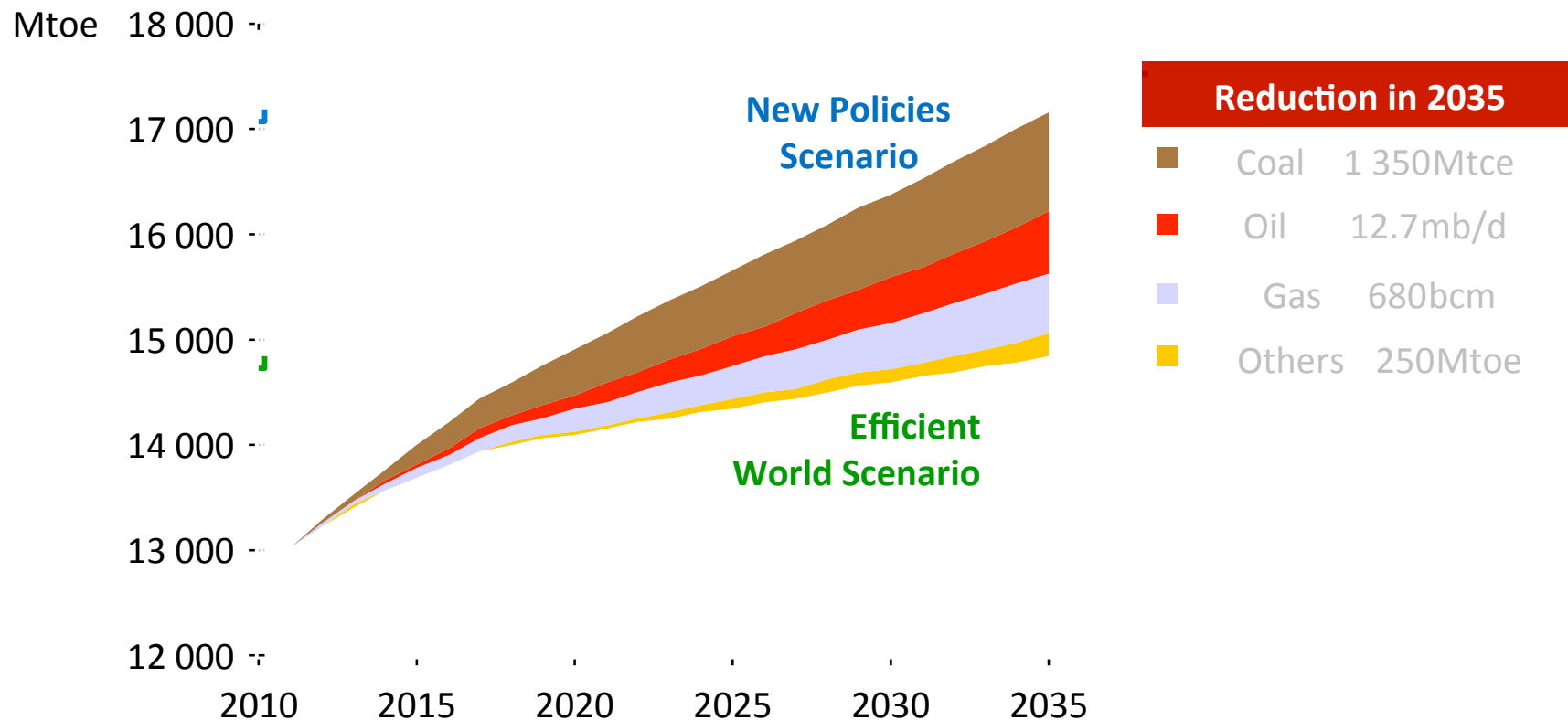
- Yearly assessment of energy status in the world
- For the first time, energy efficiency is featured as main strategy
- Nothing new, but now it is official!





The Efficient World Scenario: a blueprint for an efficient world

Total primary energy demand



IEA World Energy Outlook 2012



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These curves are nice but just how nice are they?

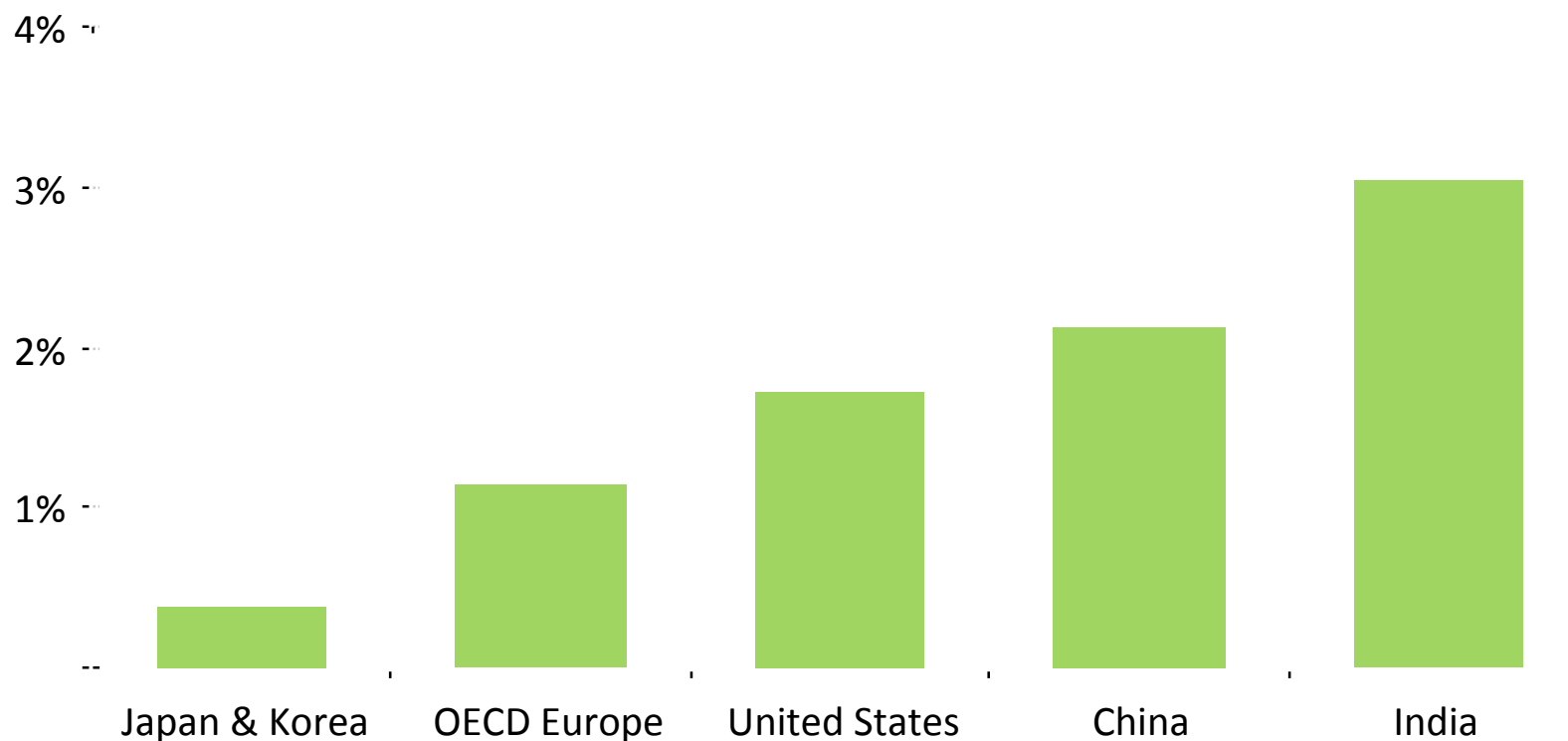
- Profitable measures can halve energy demand growth to 2035
- oil prices would be \$15 per barrel lower by 2035 due to oil demand savings
- Cumulative investments in energy efficiency of \$12 trillion are more than offset by fuel savings
- Trigger economic growth of a cumulative \$18 trillion
- Still conservative: if we take health and life-cycle costs in they would be even bigger

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Energy efficiency can help drive economic prosperity

GDP in Efficient World Scenario versus New Policies Scenario, 2035

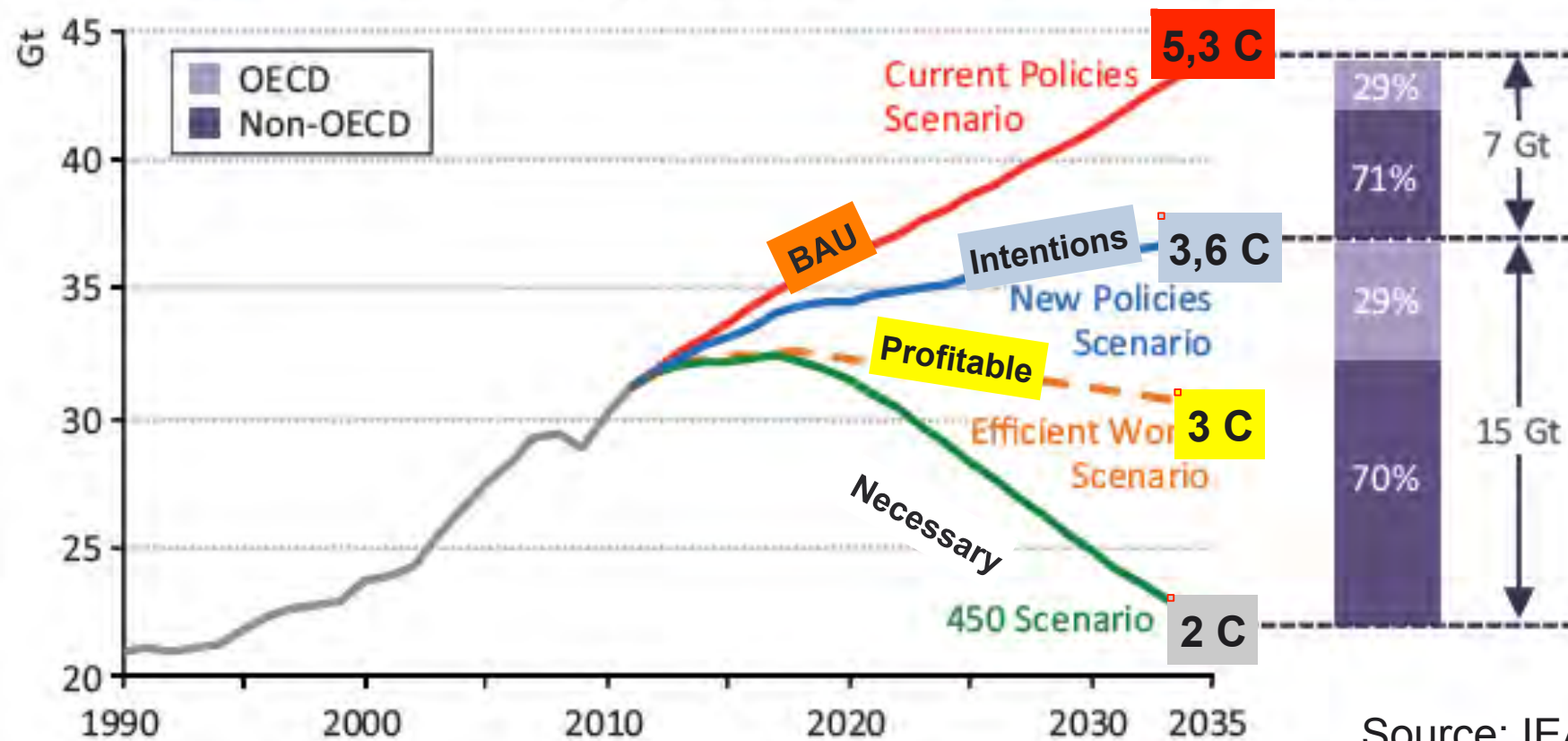


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WEO and 450 scenarios GHG and temperatures

Figure 8.3 ▶ Global energy-related CO₂ emissions by scenario



Source: IEA & Hans Nilsson



Job creation & return on invest

The example of KfW Bank



Refurbished homes:

- 270 000 per year
- 1 300 000 total so far (to 2010)



Jobs created/retained:

- 345 000 per year



Government budget:

€ 1,25 billion per year

Loan commitments:

€ 6.2 billion per year

Co-financed investments:

€ 12 billion per year

Result within one year:

€5 return for each €1 spent by Federal Govt.



EU key messages

Where we could be in 2035

- Efficiency can cut EU demand by 15%
- Buildings accounts for half of those savings
- Additional investments are \$2.2 trillion over 2012-2035 → Saves consumers \$4.9 trillion
- Energy imports would still grow from \$402 billion in 2010 to \$455 billion in 2035. **But** this is a cut of \$171 billion vs New Policies Scenario
- CO2 emissions would decline to 2.3 Gt in 2035 compared with 3.6 Gt in 2010

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Making efficiency our reality

- Government leadership, effective co-ordination & administrative capacity
- Make the consumer a priority
- Increase visibility of efficiency and its gains
- Make efficiency affordable
- Make financing instruments available
- Remove (fossil) fuel subsidies
- Make efficiency the norm
- Introduce, monitor and enforce standards

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Main EU Directives and policies

- 1) The Energy Efficiency Directive (replaces the ESD Directive)
- 2) The Energy Performance of Buildings Directive
- 3) The Ecodesign Directive
- 4) The Labelling Directive (+ tyre labelling)
- 5) CO₂ standards on cars
- 6) and – Emissions Trading System (ETS) (although sometimes in conflict with efficiency and savings).



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Policies not enough. We need to understand what works and why

- As long as we think it is only about economic incentives, we're doomed
- As long as we think people always do what is profitable, we're doomed.
- That's why performance standards and legislation are so important
- But we still need to push ahead beyond standards and legislation



We don't understand people!

Homo economicus vs homo sapiens







Designing policies that work

- Treat humans as humans – not as computers
- Focus on what we want to achieve, not on how we (wrongly) think people behave
- Have many policies – no one size fits all
- Create an environment that welcomes change
- Be realistic – not everyone like gadgets ...
- ... But don't be too cautious!
- There are conflicts of interest
- Learn from what works and prepare to adapt
- Continuous focus – no one time fix



**There are new low hanging fruit
on the tree every year!**

Thank You!

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