



**OEDC/UNEP Conf. on Resource Efficiency
Paris, 23-25 April 2008**

Module 6:
International Cooperation
and Partnerships

A scenic landscape with a valley, mountains, and a cloudy sky. The foreground shows green vegetation, and the background features rolling hills and mountains under a bright, cloudy sky.

◆ **Why is resource efficiency important & challenging as a topic for international collaboration?**

◆ **Main barriers for resource efficiency which international collaboration should address?**

◆ **Most important points for partnerships to address?**

◆ **How can a proactive, preventive approach for resource efficiency be internalised in business operations and integrated into relevant policies?**

◆ **How can resource-efficient technology transfer and capacity building, in particular for SMEs, be fostered by international collaboration?**

◆ **Which actions are needed in addition to current OECD and UNEP activities at the international level?**



Stepping Back: Our Theories of Action

- What systems of action do (or would) work?
- How to promote those systems?
- Major part of solution: harness micro-incentives
 - Address barriers
 - Promote growth/production of limiting resources
 - Promote availability of/access to limiting public goods
 - Strengthen Beneficial Feedback signals:
 - Reduce “transaction costs” of information flow

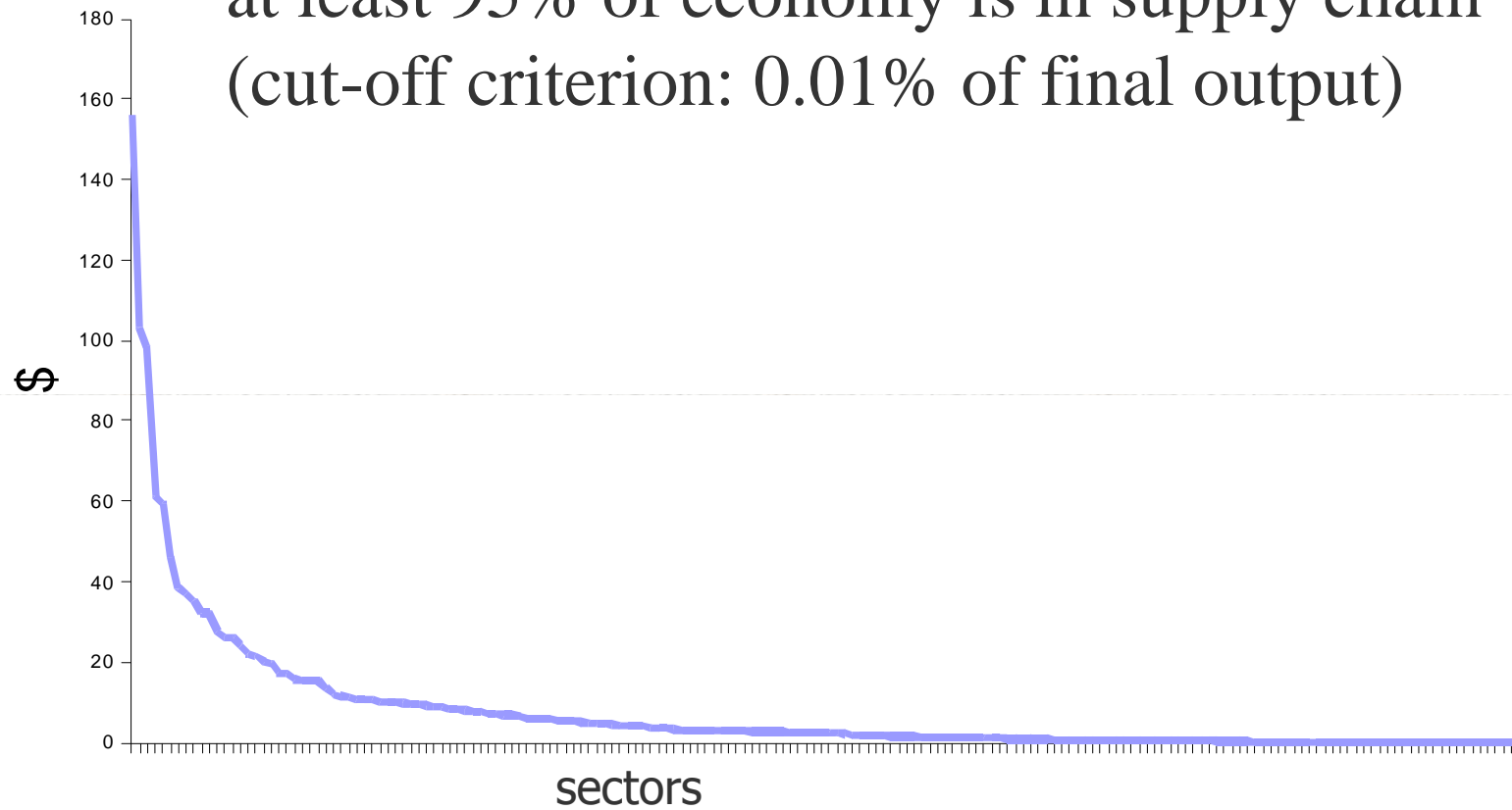


Axioms

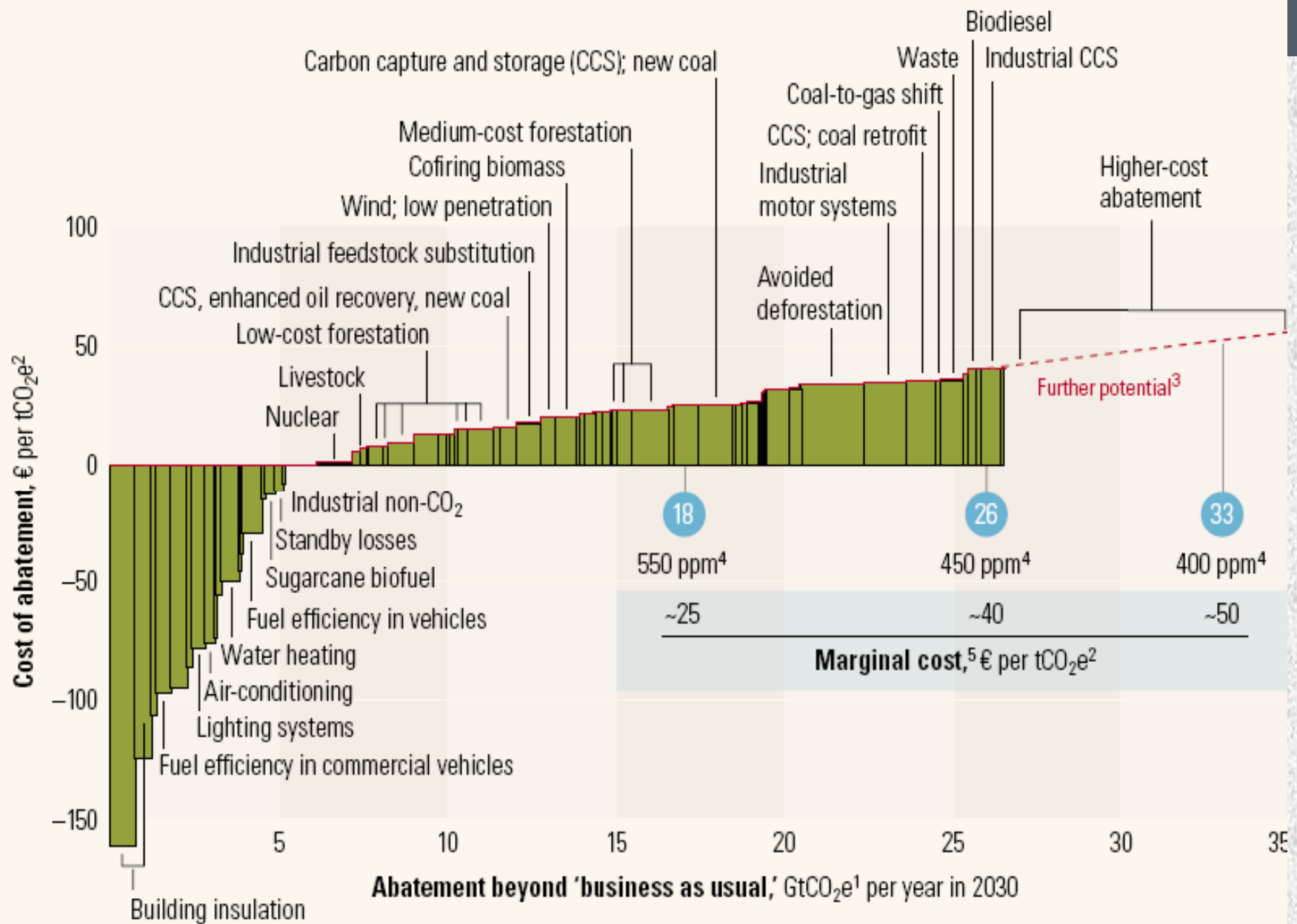
- Supply chains are already international
- Cost-effective opportunities are already abundant;
Creativity is ahead of implementation
- Desires / motivations already exist:
Sustainable procurement, CSR, profit motive
- Reduce Transaction costs of information, re:
Demands, hot spots/leverage, innovations, progress
 - Two-way flow in supply chains
 - Ubiquitous reporting
 - Ubiquitous access
 - Ubiquitous capability to use: inform, invest, innovate



For 90% of sectors in US IO model,
at least 95% of economy is in supply chain
(cut-off criterion: 0.01% of final output)



Source: 1997 IO table via US BEA



Source: McKinsey Quarterly 2007



Desires / Motivations Already Exist

- Nike supply chain innovation
- Plastics Industry
- State of Texas
- Wal-Mart



Nike Supply Chain Innovation: Pilot

- Expert sent to do energy audits at 3 suppliers
- 2 months
- Major opportunity at each site
- Major differences in opportunities
- Investment funds becoming available
- Limiting resource?



Plastics Industry

- Motivator: US Green Building Rating System
Taking life cycle resource efficiency into account
- Responses:
 - Developing life cycle inventory data for products
 - Trying to develop internal capacity in life cycle
- Recruiting undergraduate interns
- Limiting resource?



State of Texas

- Law: Government purchasers must buy green
- Initially limiting resource: info on green products
 - Developing free, open source tool for buyers
 - Links to open source free tool for manufacturers to compute -- and report in web -- life cycle impacts
- Publish, by commodity:
Amount TX \$ /yr ; national average benchmark
- Next limiting resource:
 - Capability of manufacturers to implement; improve





Wal-Mart

- 100 Million bulb initiative: CFLs
- Announced Fall 2006
- Initial price difference: factor of 12
 - Worked with GE to reduce price: 21%
 - Demand → Economies of scale → factor of 4
- Achieved October 2007, 3 months early
- Impacts:
 - Electricity bills reduced by \$3 billion
 - = 700,000 cars off the road, or 450,000 homes
 - Set context for national legislation



Wal-Mart

- Prioritizing 60,000 products in terms of life cycle climate impacts
- Address top 10% by engaging supply chains, industries, seeking life cycle innovations
- Replicate CFL impacts 20 times
- Avoid burden-shifting to social impacts; promote co-benefits



Re-Cap: Axioms

- Supply chains are already international
- Cost-effective opportunities are already abundant;
Creativity is ahead of implementation
- Desires / motivations already exist:
Sustainable procurement, CSR, profit motive
- Reduce transaction costs of information flow
- Limiting resources: ***product-specific information***,
and ***the ability to generate and use it.***



Capacity Development: Global Need

- **Idea 1: National / International University networks**
- Engineering Departments: Senior Design Projects
- Teams of 3-5 undergrads, with advisor
 - Learn LCA basics
 - Teach LCM basics
 - Use free tools to calculate and report
 - Identify opportunities for improvement
- Engineers exposed
- Companies engaged, tracking, learning
- Link to International network of business schools



Capacity Development: Global Need

- **Idea 2: “Lower-Level Meetings”**
- LCA Camp
- Laptops, tents, guitars, open source software, diplomas, links to company internships