

Concluding session: Business and political governance

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International
Resource
Panel



University of California

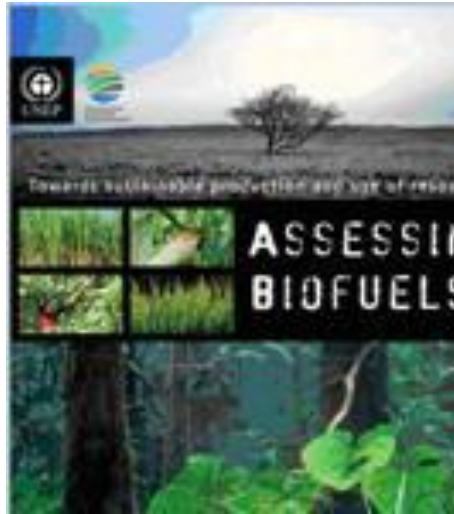


BREN SCHOOL OF
ENVIRONMENTAL SCIENCE & MANAGEMENT
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UNEP International Resource Panel



- A group of 27 scientists and experts.
- Provides independent scientific assessment on sustainability imperatives around resources.





Ecosphere®

Circular economy: done already?

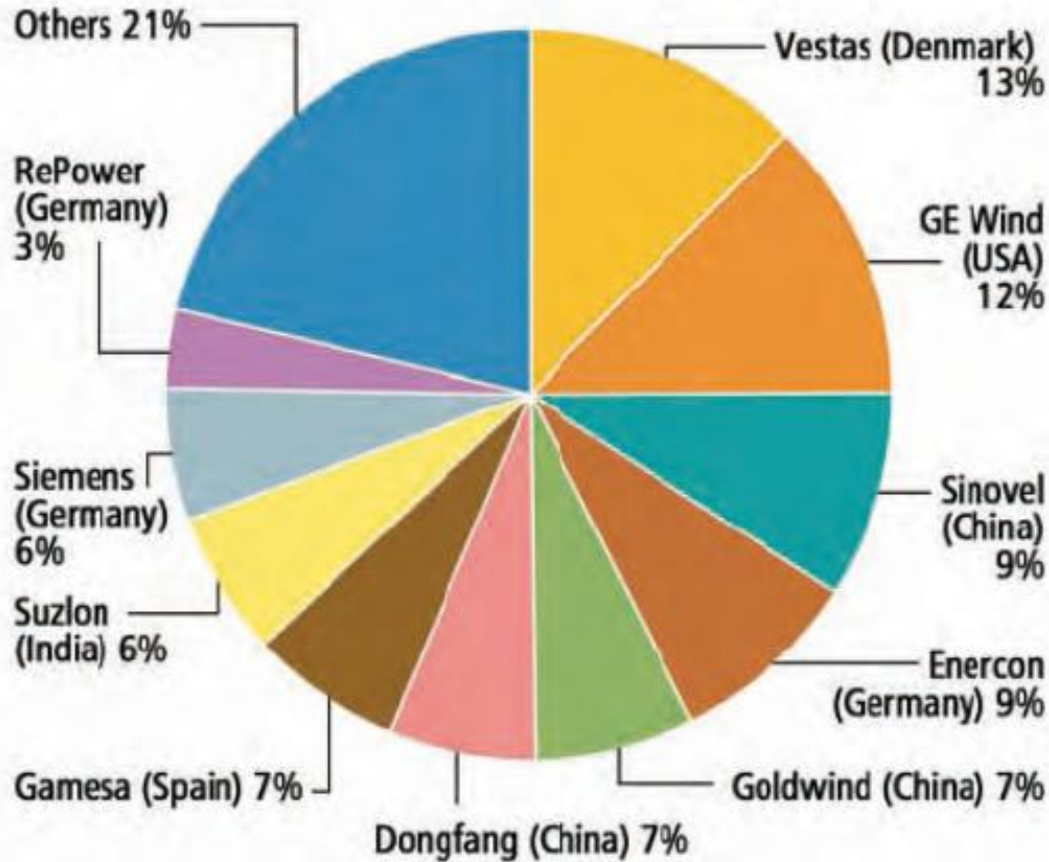
- *“In every manufacturing process there is more or less waste of the raw material, which it is the province of others following the original manufacturer to collect and utilize. This is done now, more or less, in almost every manufacturer.”*

- Peter Simmonds, *Waste Products and Undeveloped Substances* (1876).

- The history of industrialization is a history of innovation to utilize wastes, thereby reducing cost and increasing revenue.
- That was under little or no policy coordination for circular economy.



Policy: Framework conditions



Align

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Sea change toward circular economy

- Companies are already striving for reducing materials costs and increasing revenue by turning waste into useful products under the current economic reality and knowledge-base.
- Sea change toward circular economy requires **aligning entrepreneurial opportunities and innovation with circular economy** within the market.
- Policy and regulation shall enable the **framework conditions** under which entrepreneurial opportunities for circular economy are created.

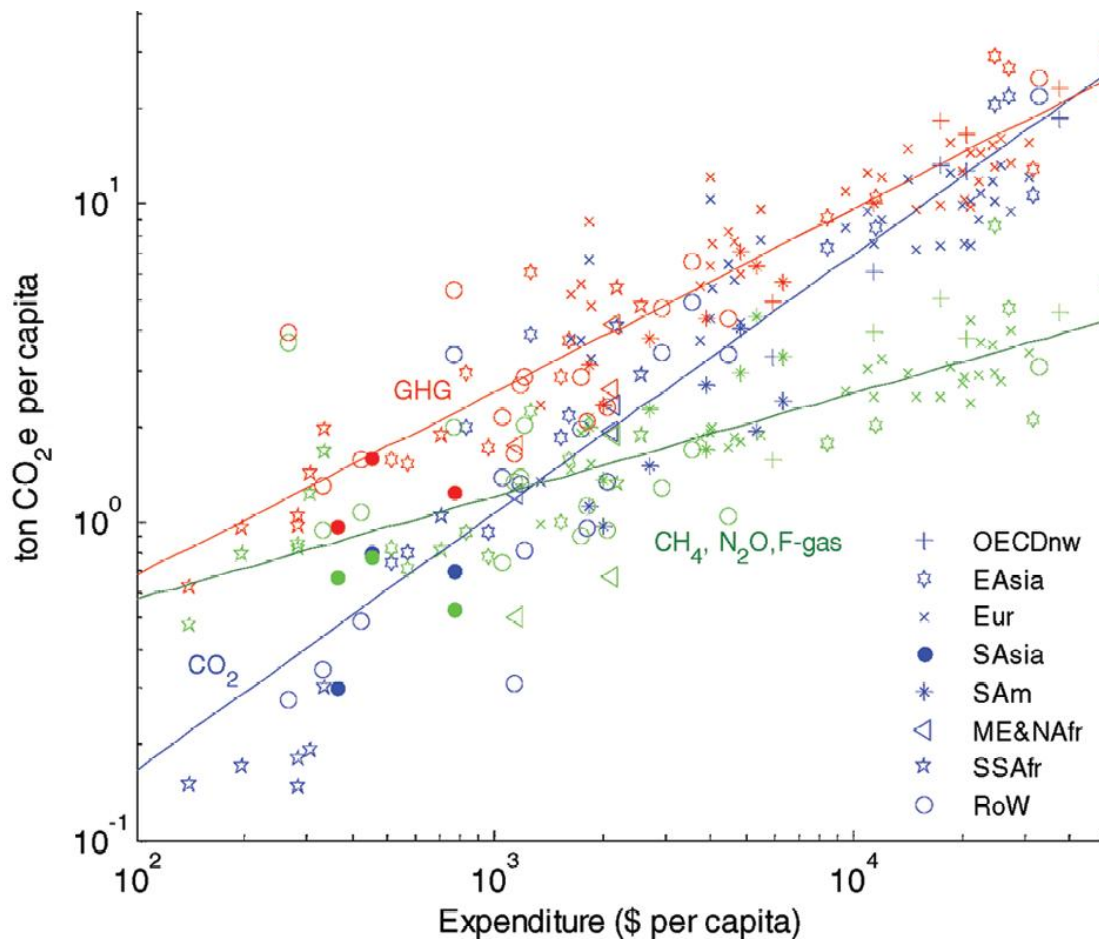
Framework conditions

- Re-allocation of subsidies
 - Don't make it so cheap to produce primary material and energy resources
- Resource pricing
 - Don't make it so cheap to through away valuable resources.
- Leveled international playing field
 - International coordination and governance.
- Targeted application
 - Protecting the vulnerable class.
 - Focusing on particularly scarce resources.

Life Cycle Thinking

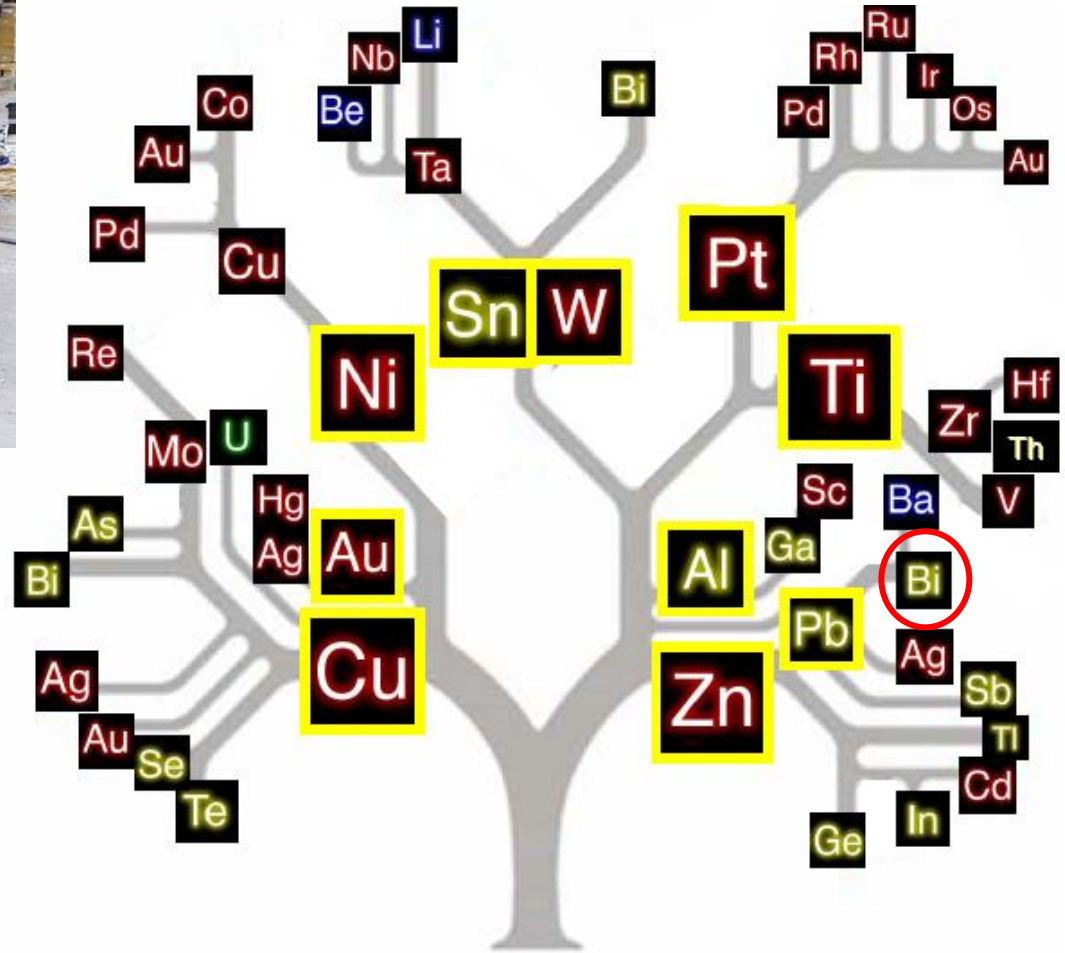
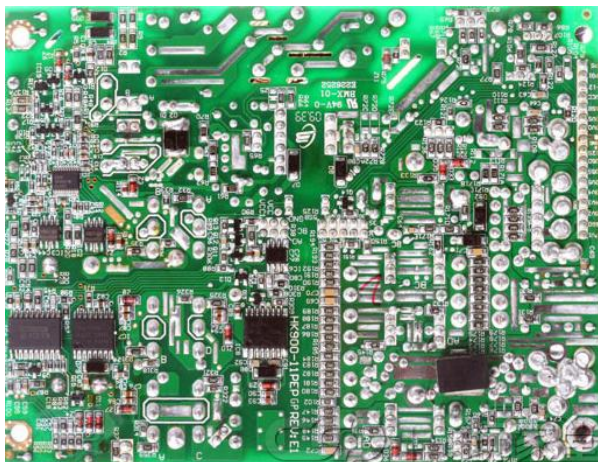
- If you can't measure it, you can't manage it.
- In doing so, life-cycle perspective is essential.
 - Science-based.
 - Prevents problem-shifting.
 - Avoids the pitfalls of single-criterion decision making.
 - Helps understand the trade-offs.

Decoupling in global economy?



Hertwich and Peters, 2009

Co-production tree

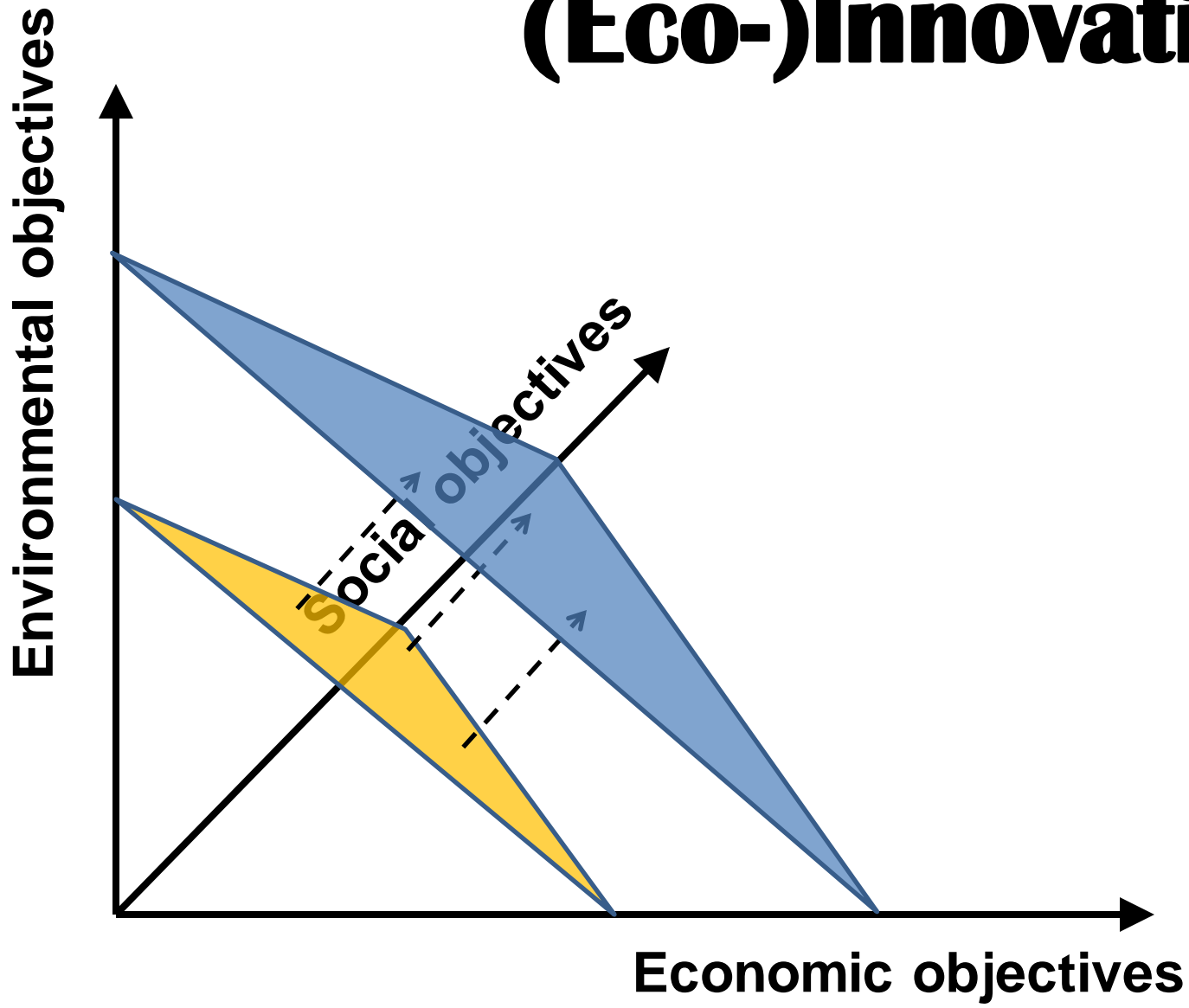


Summary

- Aligning entrepreneurial opportunities and eco-innovation with circular economy is a key.
- Policy plays a key role in setting the framework conditions under which the market naturally drives the circular economy from within.
- Circular economy is a means not the goal of sustainable future, and Life Cycle Thinking can help quantify and understand the trade-offs.

Supplementary slides

(Eco-)Innovation!





Green Growth in Schumpeterian perspective:

Creative destruction that transforms the economy into a new state where both environmental and economic objectives are satisfied at a heightened level.

