

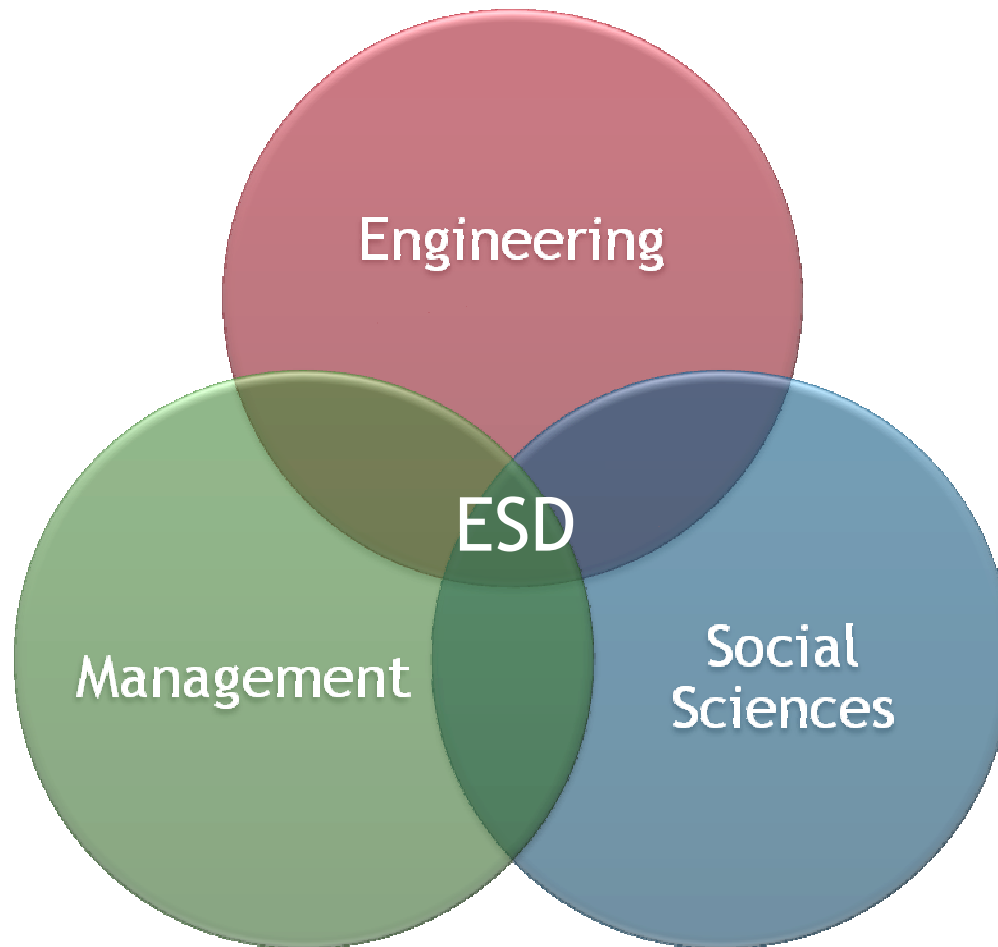
Panel on Interlinkages and Cross-Cutting Issues
Intergovernmental Preparatory Meeting for the
19th Session of the
Commission of Sustainable Development

March 3, 2011

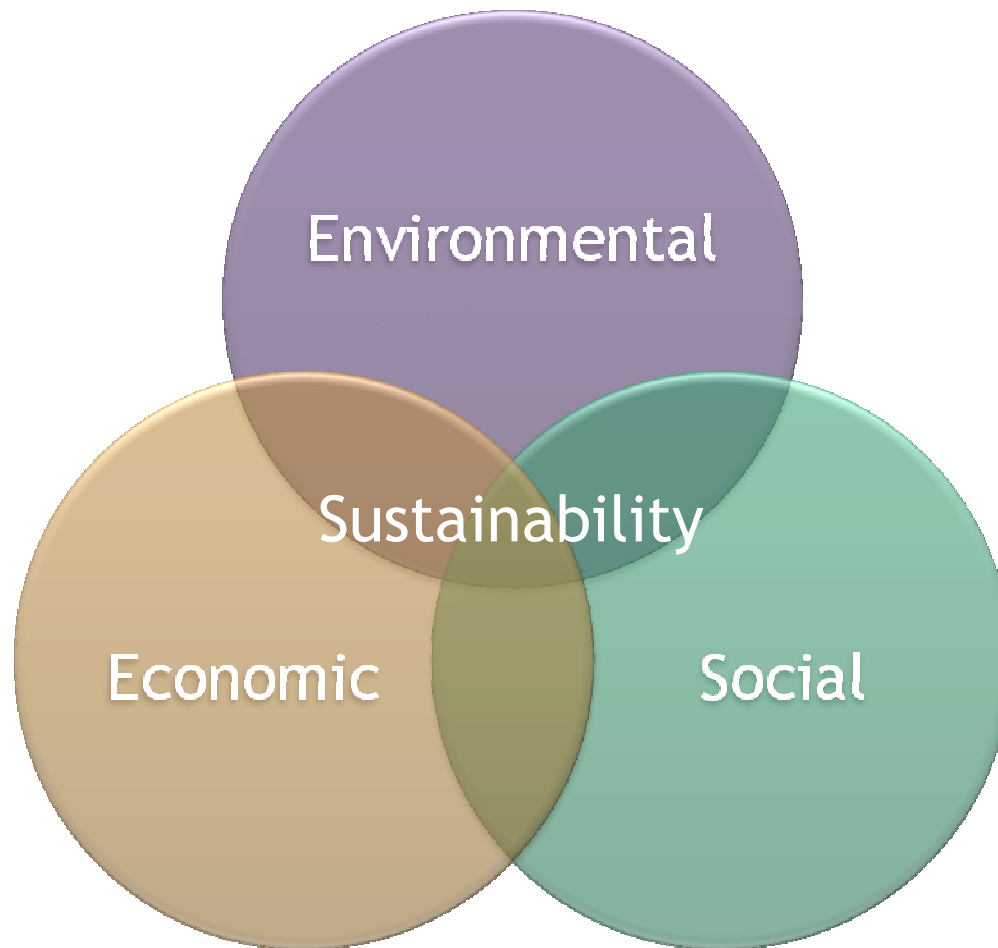
Jeremy Gregory
Materials Systems Laboratory
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Massachusetts Institute of Technology

Engineering Systems Division at MIT:

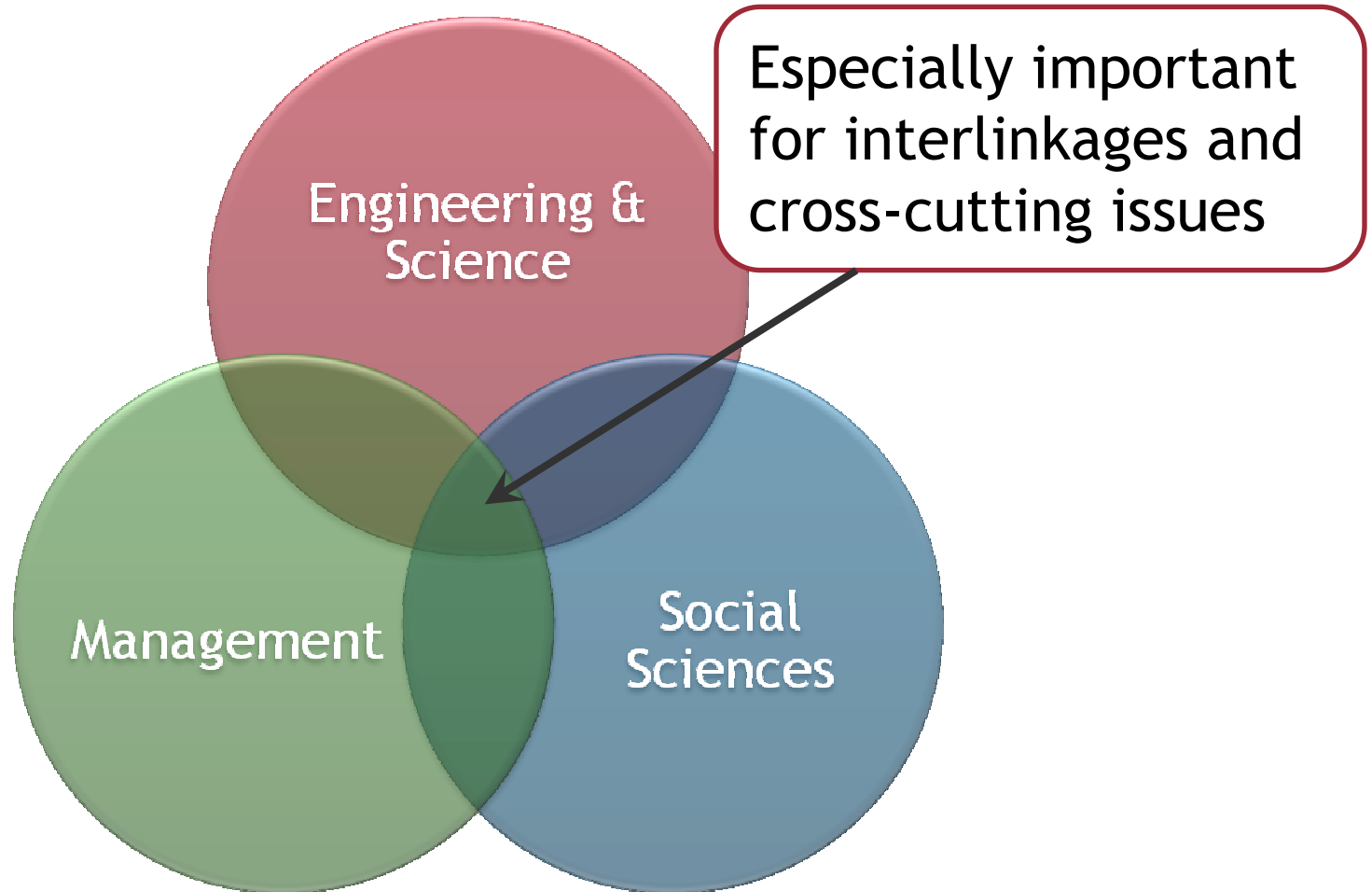
Solving complex problems requires a multidisciplinary approach



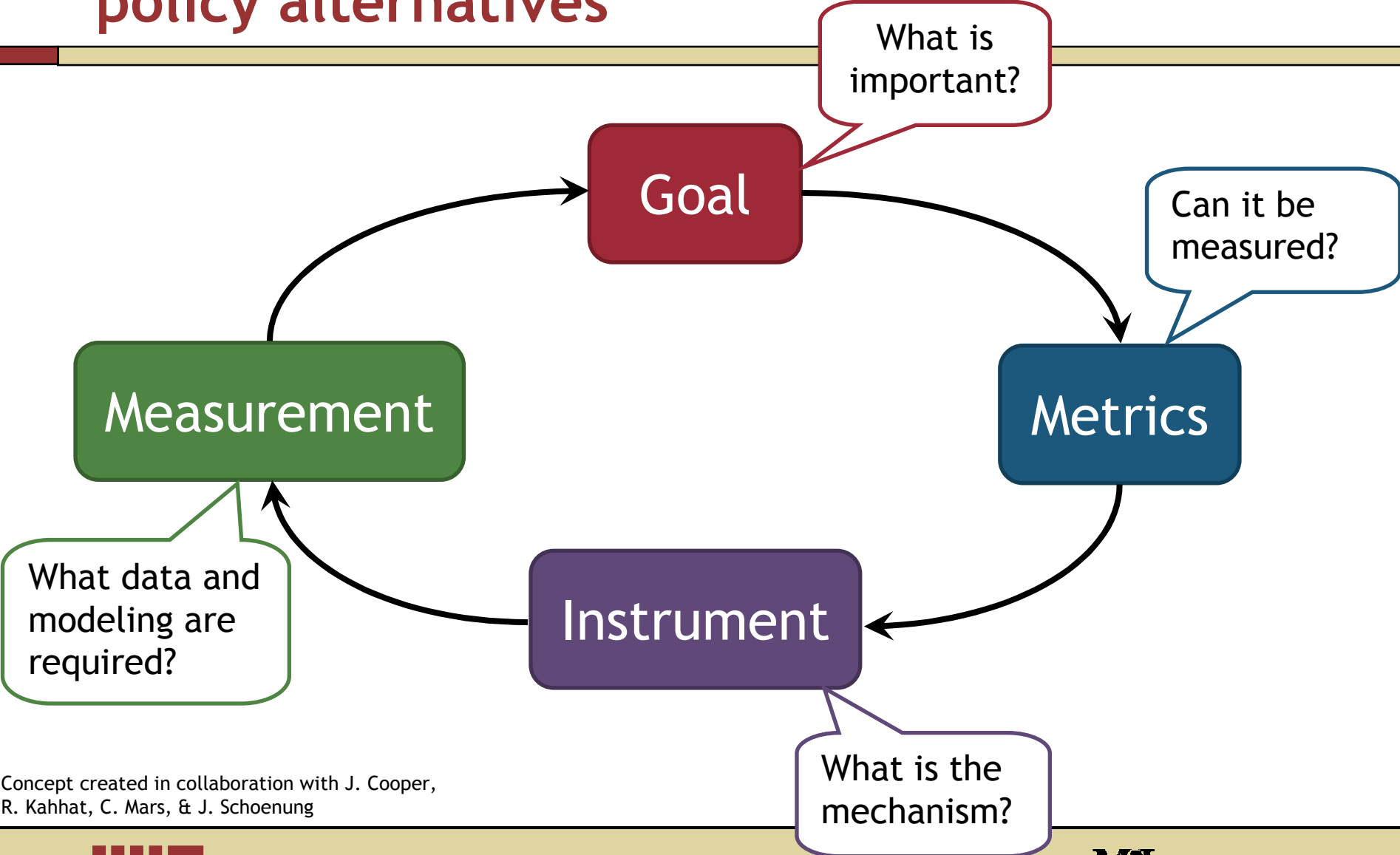
Moving toward sustainability is a complex problem



Policy alternatives motivated by sustainability should be evaluated using a multidisciplinary approach



A proposal for developing and evaluating policy alternatives



Concept created in collaboration with J. Cooper, R. Kahhat, C. Mars, & J. Schoenung

A proposal for developing and evaluating policy alternatives

What is important?

Policies should target a specific goal, *but...*

Can it be measured?

Measure

...impacts should be evaluated throughout the system.

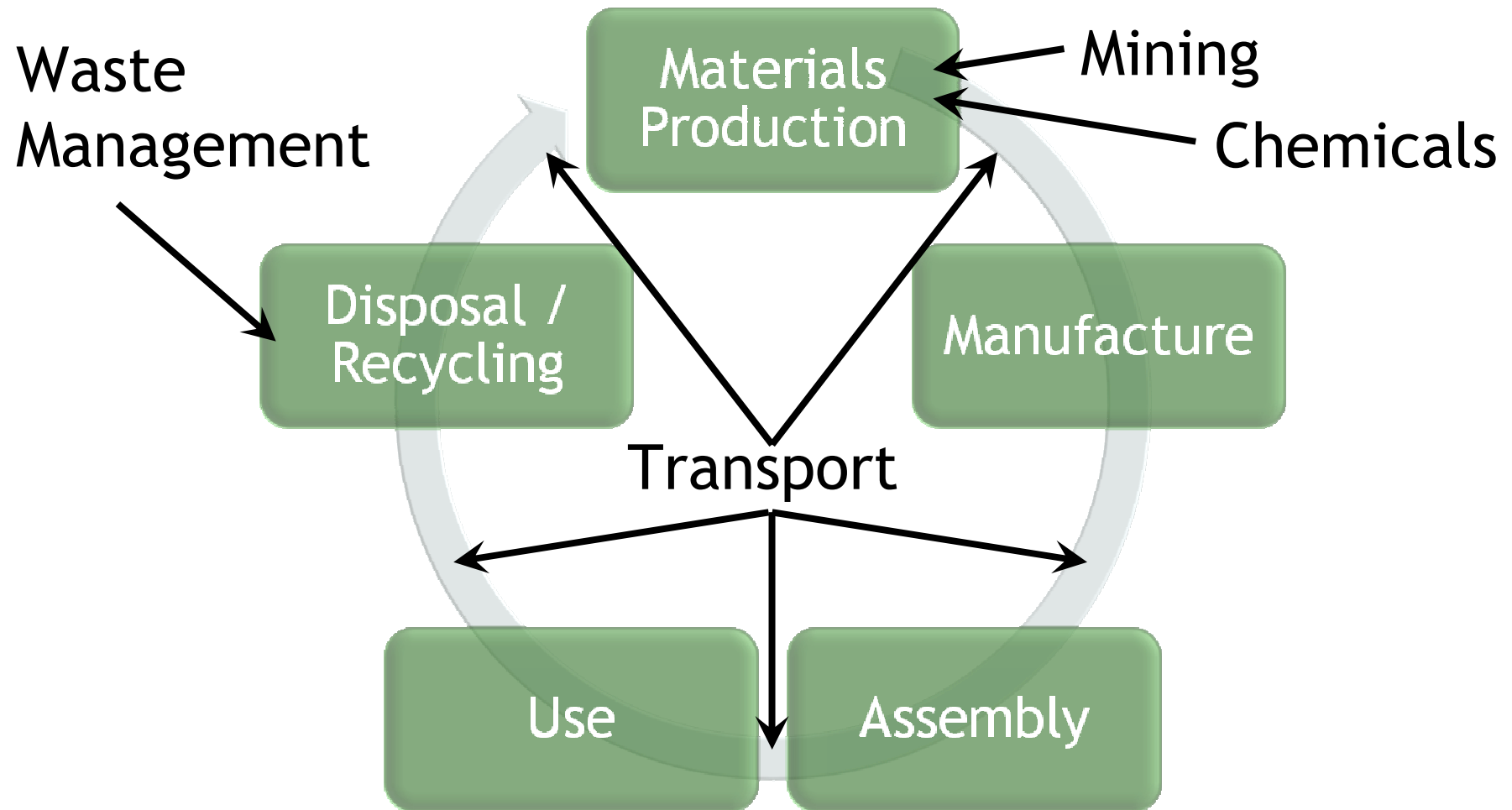
What data and modeling are required?

A life cycle perspective can facilitate policy evaluation.

What is the mechanism?

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Thematic cluster issues span the life cycle



1. What actions need to be undertaken to ensure that policy measures adopted in one area can have benefits in other interlinked areas?

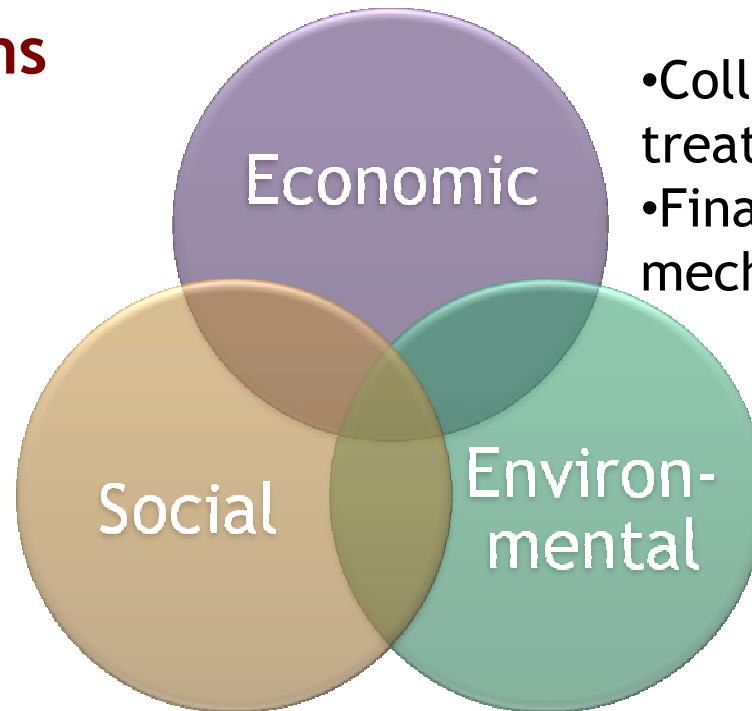
Policies should be evaluated with a life cycle and/or systems perspective using multidisciplinary teams

Example: sustainable e-waste systems



Source: empa

- Education of consumers about recycling
- Labor justice in informal sector

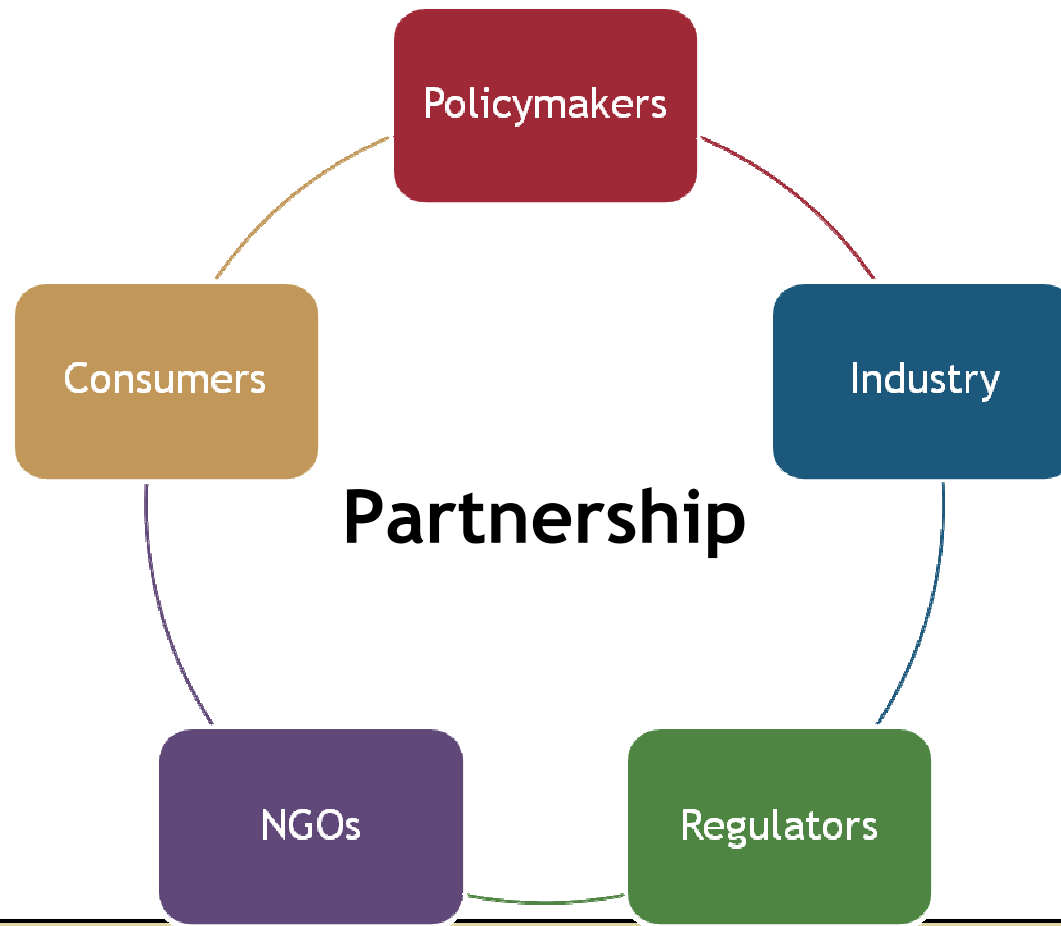


- Collection & treatment costs
- Financing mechanisms

- Treatment and transport burden
- Avoided mining burden

2. What kind of economic and financial policies and public and private investments are needed to promote sustainability in the themes of this cluster?

Develop multistakeholder policy development initiatives



Partnerships challenge participants to excel on a level playing field and vest them in policy

- **Transport:**



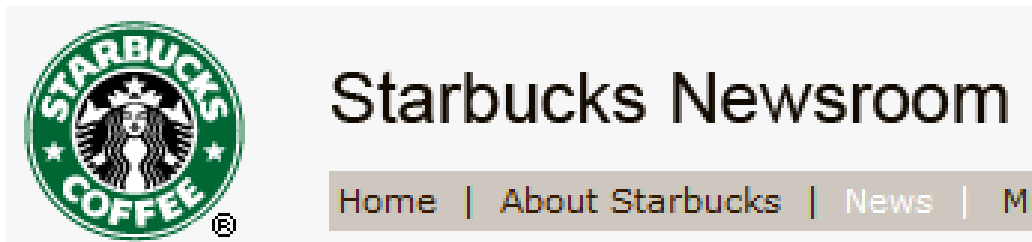
- **Waste Management:**



Recharging the planet. Recycling your batteries.™

3. What policies need to be adopted to support research, innovation, and technology cooperation and transfer to promote SCP across all themes?

Multistakeholder policy development partnerships spur innovation and cooperation



May 11, 2009

Starbucks Brings Thought Leaders Together to Develop a Comprehensive Recyclable Cup Solution

Upcoming Starbucks Cup Summit with Influencers from Business, Academic and Civil Sectors to be Moderated by Peter Senge, Pioneer of Systems Thinking and Founding Chair of the Society for Organization Learning (SoL)

SEATTLE – May 11, 2009 – Starbucks Coffee Company (NASDAQ: SBUX) today announced plans to host a summit comprised of representatives from all facets of its paper and plastic cup value chain at the Starbucks Support Center in Seattle on Tuesday, May 12, 2009. With the goal of prioritization and agreement on criteria for a comprehensive recyclable cup solution, discussions will address obstacles and opportunities. This effort is an extension of Starbucks long-term commitment to reducing the environmental impact of its

Engaging partners across value chain in systems thinking

4. What measures need to be put in place to ensure adequate and predictable financing to support policies related to current themes of the cycle?

Vesting stakeholders in policy development process helps to limit uncertainty and risk



Extended
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