Panel on Interlinkages and Cross-Cutting Issues

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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.

Especially important for interlinkages and cross-cutting issues.

- Engineering & Science
- Management
- Social Sciences
A proposal for developing and evaluating policy alternatives

- **Goal**
  - What is important?
  - Can it be measured?

- **Measurement**
  - What data and modeling are required?

- **Instrument**
  - What is the mechanism?

- **Metrics**

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

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A proposal for developing and evaluating policy alternatives

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

...impacts should be evaluated throughout the system.

A life cycle perspective can facilitate policy evaluation.

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Thematic cluster issues span the life cycle

- Waste Management
- Disposal / Recycling
- Materials Production
- Manufacturing
- Mining
- Chemicals
- Transport
- Use
- Assembly
1. What actions need to be undertaken to ensure that policy measures adopted in one area can have benefits in other interconnected areas?

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

Example: sustainable e-waste systems

- Collection & treatment costs
- Financing mechanisms
- Treatment and transport burden
- Avoided mining burden

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

- Policymakers
- Consumers
- NGOs
- Regulators
- Industry

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

• Transport:

US EPA Certified SmartWay®

• Waste Management:

call2recycle®

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

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.