Life Cycle Footprints for Green Servicizing

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Servicizing Can Contribute to Sustainable Materials Management

• Innovative business models that substitute services for material products can dramatically reduce the supply chain resources needed to deliver value to the customer.

• However, a servicized business model still has an environmental footprint, driven by the utilization of people, property, vehicles, buildings, energy, etc., as well as ecosystem services.

• Comprehensive life cycle assessment (based on functional unit) can provide a fair comparison between a servicized model and a traditional product-based business model.

• This is not easy with conventional LCA tools, but it is feasible using economic input-output methods.
Postal service requires about 3 liters of water use per 44c delivery.
Non-Renewable Material Flow for Postal Services

Eco-LCA™ (Ecologically-Based LCA)

Postal service consumes about 150 g of non-renewable materials per 44c delivery.
Comparative Water Footprint of Selected Services

Eco-LCA™ (Ecologically-Based LCA)

- Colleges, universities, and junior colleges
- Couriers and messengers
- Drilling oil and gas wells
- Home health care services
- Information services
- Legal services
- Personal care services
- Postal service
- Radio and television broadcasting
- Software publishers

Legend:
- Water (agriculture & livestock)
- Water (powerplant)
- Water (public supply)