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**The Role of Manufacturing in a Sustainable Society.**

In this talk we will address the basic idea of sustainability and the role of manufacturing in a sustainable society. It may not be what you expect. It is certainly debatable whether a sustainable society needs “sustainable” manufacturing. The natural cycle for components of nature and society seems to be birth, death and rebirth. Never the less, manufacturing plays a very important role in society and has an enormous effect on our environmental footprint. To illustrate the nature of this interaction we will review trends in manufacturing and society with particular emphasis on material and fuel resources.

This review will include such effects as efficiency, eco-efficiency, and conservation; production and growth, technology development and consumer behavior. We will look at Life Cycle Analysis applied to products and services, as well as the accuracy and implications of this technique. Of particular importance to manufacturing is how the drawing of boundaries for an environmental analysis affects the outcome.

Clearly, not all impacts are under the influence of manufacturing and proper incentives will be needed to get the right effect. In this talk we will pay particular attention to carbon and global warming and review possible regulations and market effects on manufacturing. Opportunities and pit-falls will be highlighted.