

Industrial Transformation (IT)

Poster Abstract

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Industrial Transformation (IT) goes beyond the notion of “green” products and beyond the domain of single sectors. It is about system innovation (see figure 1). Different sectors are likely to get involved simultaneously. Industrial Transformation cannot be planned by a single actor, it requires the engagement of society as a whole. Moreover, transformation takes time, in the order of decades, and involves geographic scales that go beyond a single country or a single continent. Transformation may well start at the local level triggered by local initiatives. However, to succeed in the long run as a new way of meeting primary needs and preferences, it will have to be adopted at larger geographic scales.

The IT research seeks to understand complex society-environment interactions, identify driving forces for change, and explore development trajectories that have a significantly smaller burden on the environment.

It is based on the assumption that important changes in production and consumption systems will be required in order to meet the needs and aspirations of a growing world population while using environmental resources in a sustainable manner.

The focus on systems and systems change research makes this project unique and different from the present mainstream of environmental research. Systems in the framework of IT research are defined as a chain of interrelated economic activities aimed at providing a specific need for society (e.g., energy and food). Such a system includes the actors (government, producers and consumers), the flow of goods and/or services they deal with (including the metabolism along the chain) and the overall physical and institutional setting in which they operate. Usually system changes are driven by a combination of specific societal aspirations and/or concerns and economic/technological opportunities. System changes come about when such aspirations, concerns and opportunities are mutually reinforcing.

To set certain limitations as to what would qualify as Industrial Transformation research, four general characteristics are defined:

1. IT research deals with the relationship between societal, technological, and environmental change;
2. IT focuses on systems and system changes that are relevant in view of the global environment (such as the energy system, the food system, and the urban system);
3. IT research relates producer and consumer perspectives, including the incentives and institutions that help in shaping these perspectives; and
4. IT research is international in scope.

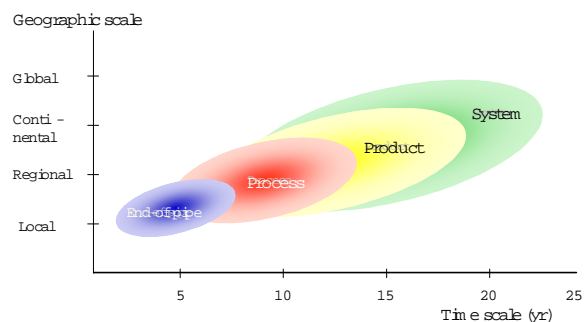


Figure 1. Societal Responses to the Issue of Environment, Scales in Time and Space.