

About IT

Overarching Goal

To explore pathways towards decoupling of the economic growth from the related degradation of the environment.

Objectives

Industrial Transformation (IT) presents an innovative way of organizing research, which aims at understanding the societal mechanisms and human driving forces that could facilitate a transformation of the industrial system towards sustainability. IT is one of the four Science Projects coordinated by the [International Human Dimensions Programme](#) on Global Environmental Change.

IT seeks to integrate and stimulate co-operation among international and interdisciplinary scientists by establishing both a research framework and a network which can be useful for exchanging information and identifying priority research questions.

The significant added value of research within this project is its integrative and multidisciplinary character which draws upon the dynamic interactions and mutual dependencies between the socio-economic, the producer (technological) and the consumer (market) domain, which have, so far, been studied almost exclusively as rather isolated factors.

To learn more about current IT findings, please view the [summary](#) of Pier Vellinga's speech, given during the open science Conference in Amsterdam, 10-13 July 2001.

Foci of IT research



1. *Energy and Material Flows* – The energy system and its linkages to flow of materials, given its environmental implications at global and local levels, is a major focus for research.

2. *Food* – Food production and consumption are prioritized in view of their relation to biodiversity issues and the major impact on the environment throughout the food production, processing, transport, consumption, and waste cycle.
3. *Cities* – This theme includes important spatial aspects of water and transport which in turn have a major effect on the local and global environmental quality.
4. *Information and Communication* – Developments in this field are considered to be one of the major driving forces in societal transformation with important implications for the global environment both in a positive and a negative sense depending on the ways these systems are developed and evaluated.
5. *Governance and Transformation Processes* – Combined in a single research focus, with emphasis on analysing and understanding the driving forces that are changing the way society relates to the environment and the institutes it develops to manage the interaction.

For each of these foci, a few of research questions have been identified as relevant to Industrial Transformation research. A Detailed description of these foci and their research questions can be found in the [Industrial Transformation Science Plan](#)

Science Plan

An international consultation process has been carried out to identify IT research priorities and resulted in the [Industrial Transformation Science Plan](#). The Science Plan should be seen as an evolving and dynamic framework for the development of research projects.

IT Research Characteristics

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.