



INDUSTRIAL TRANSFORMATION

*Environmental Policy Innovation
in the United States and Europe*

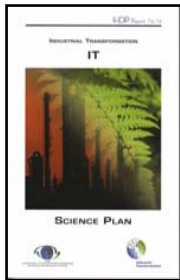
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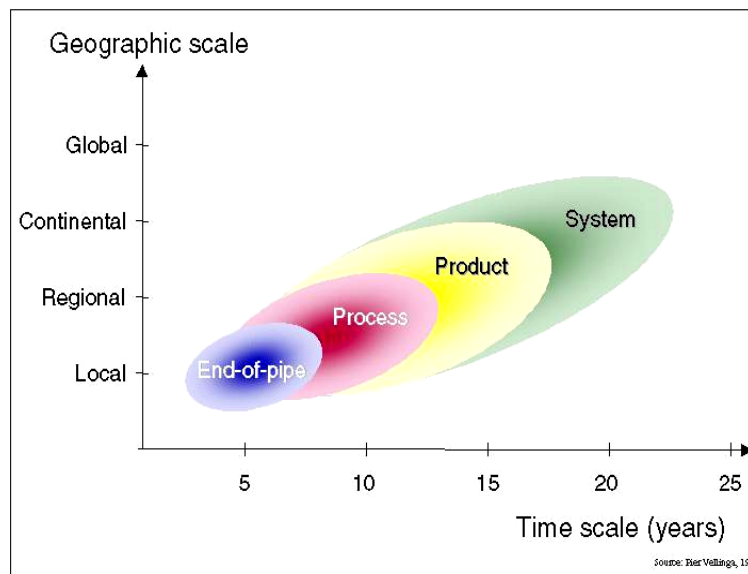
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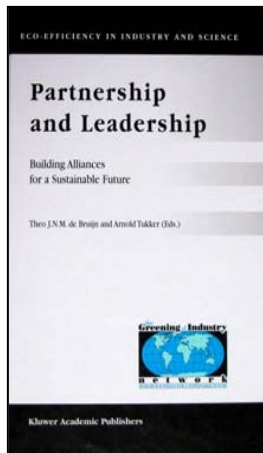
“Important changes in production and consumption systems will be required in order to meet the needs and aspirations of a growing world population while using environmental resources in a sustainable manner.”



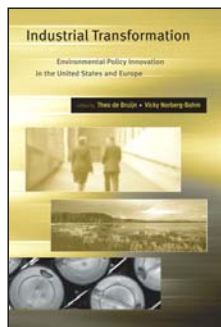
IN PARTNERSHIP

- *“An industry cannot survive an ongoing conflict with society. Dialogue, adjustment and collaboration are not a luxury but a necessity” (Loudon, 1987)*
- *“Environmental regulation of industry needs to move away from confrontation towards a new phase of co-operation and trust” (Bjerregaard, 1997)*
- *“By cooperating with a wide range of stakeholders, we can concur toward common objectives for sustainable development, and make tangible progress toward achieving them” (Stigson, 2001)*

PROSPECTS VS. EFFECTS



“Partnerships and collaboration often end up in incremental changes and not in fundamentally re-directing developments”



RECENT REGULATORY EXPERIMENTS

USA:

- *Energy Star*
- *Project XL*
- *Common Sense Initiative*
- *R&D Collaboration*
- *Toxic Release Inventory*
- *StarTrack*

Europe:

- *Policy Program on EMS (NL)*
- *Dutch Target Group Policy (NL)*
- *End-of-Life Vehicles Program (G)*
- *Cleaner Technology Programs (DK)*
- *Accounting Act (N)*
- *Eco-Management and Audit Scheme (UK)*

STANDARD FOR EVALUATION

- (1) stimulating beyond compliance behavior**
- (2) the development and diffusion of environmentally superior technologies**
- (3) providing opportunities and incentives for private-sector leadership in environmental protection, and finally**
- (4) inducing change throughout the production and consumption system**

PATHWAYS FOR EFFECTIVENESS

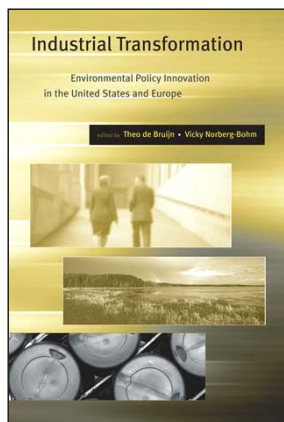
Programs can:

- + build new relationships
- + create new capabilities
- + create first movers

but may fail:

- in changing the competitive environment of firms
- because of complex implementation
- in case of a misfit with the policy system

	Substantially improved environmental performance	Development and diffusion of environmental superior technologies	Private sector leadership	Patterns of changing behavior at levels beyond individual firms
<i>Sector-Based</i>				
Dutch Target Group	+	+/-	+	+/-
CSI	-	-	-	-
German ELV	+	-	+	+
Energy Star	+	+	+	+/-
R&D Collaboration	+	+	+	+/-
Danish CTP	+/-	+	+	-
<i>Firm Level</i>				
Dutch EMS	+/-	-	+/-	-
EMAS in UK	+/-	-	+/-	-
StarTrack	+/-	-	+/-	-
Project XL	+/-	-	+/-	-
TRI	+	-	+	-
Norwegian Acc. Act	+/-	-	-	+/-



“The new approaches are not a panacea for industrial transformation”

“Voluntary, collaborative and information-based programs can play a useful role in a comprehensive environmental strategy if they are carefully designed to fit with and complement the other elements of a nation’s environmental policy system”

“In the end, the real question therefore is not whether the new approaches should be used, but rather *how* they should be used”