

ETH

Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich



Foresight of People's Risk Perception – The Example of Nanotechnology

Dr. Arnim Wiek and PD Dr. Michael Siegrist

Swiss Federal Institute of Technology Zurich

2nd European Futurist Conference

Lucerne, November 22, 2006

wiek@env.ethz.ch

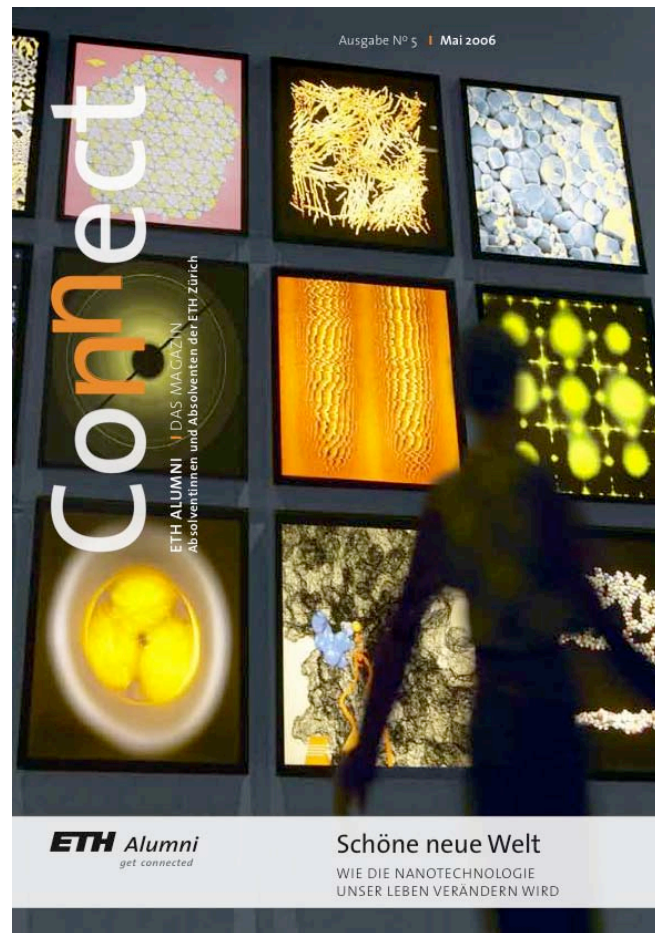
www.uns.ethz.ch/people/staff/awiek



The Hype of Nanotechnology

»Nano« has conjured up speculations about a seismic shift in almost every aspect of science and engineering with implications for ethics, economics, international relations, day-to-day life, and even humanity's conception of its place in the universe.

Ratner & Ratner (2003, p. 2)



Introduction

What we know

Models

Facts

What could happen

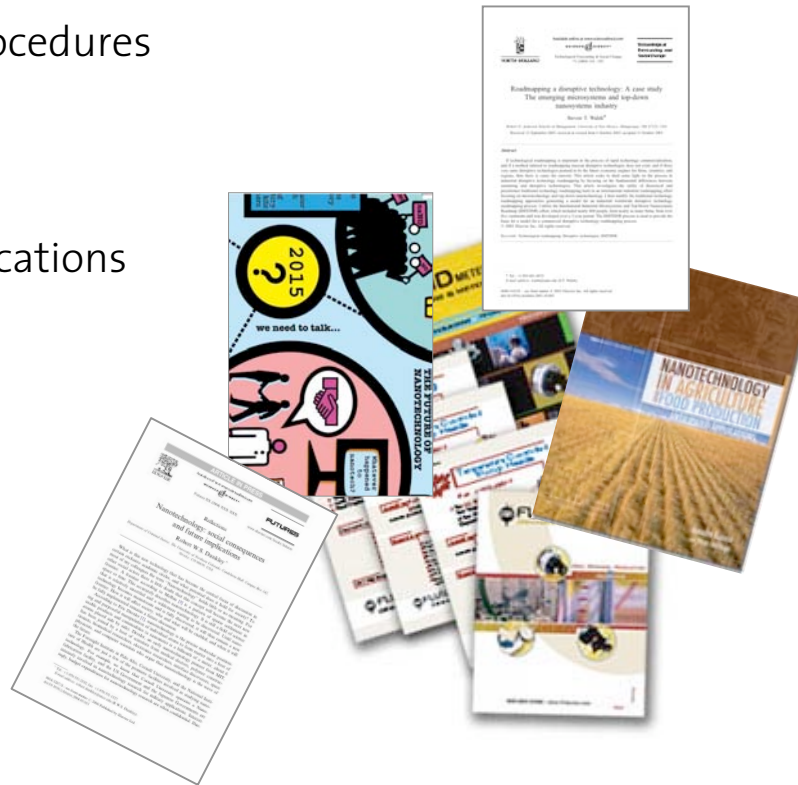
Social Trends

Knowledge Gaps

Outlook

The Focus in Future Studies

- The landscape of scenario studies on nanotechnology
 - At least 20 elaborated studies (since 2000)
 - “Intuitive” and formal procedures
- Focal points
 - Nanotechnological applications
 - “Hard” driving forces
 - Societal implications



Introduction

What we know

Models

Facts

What could happen

Social Trends

Knowledge Gaps

Outlook

And Risk?!

- Risk research
 - Expert statements (“assessments”), governance and regulation
- Psychometric paradigm
 - Few studies
 - A recent study from ETH Zurich
- The gap
 - *Future applications vs.*
 - *Current preferences*



Introduction

What we know

Models

Facts

What could happen

Social Trends

Knowledge Gaps

Outlook

Foresight of People's Risk Perception

- Guiding question
 - What are possible future developments of societal aspects that might influence the future risk perception of nanotechnology in the next 25 years?
- Example
 - Shifts in the perception of nuclear power technologies in the light of climate change awareness
- Concept
 - Changes and shifts in values, preferences, etc.
- Added value
 - Basis for strategic planning and risk communication



Introduction

What we know

Models

Facts

What could happen

Social Trends

Knowledge Gaps

Outlook

Structure of the Workshop

- What we know so far
 - The “system” of nanotechnology
 - Risk perception factors: A model
 - Factors of risk perception on nanotechnology
- What could happen
 - Societal trends of relevant factors
 - Knowledge gaps
- Outlook



Introduction

What we know

Models

Facts

What could happen

Social Trends

Knowledge Gaps

Outlook