



INSTITUT FÜR
TECHNIKFOLGEN
ABSCHÄTZUNG

NanoTrust – Nano Risk Governance in Austria

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Risk governance

- **Risk** = possible unintended (unwanted, adverse) consequences of human activities (decisions) – potential damage and probability of occurrence
- **Governance** = socio-political interaction of players (important actors, i.e. decision makers, science, industry, economy, civil society, ...)
- **Risk governance** =
 - management of uncertainty related activities by society itself and
 - implementation of a new technology in a sustainable way (public acceptance)

General situation

- Trends in public opinion towards nanotechnology
 - high expectations (esp. medical sector)
 - moderate concerns (esp. food sector)
 - low knowledge
- rather unstable situation
- public attitudes informed by emotion rather than knowledge
- earlier technology choice debates (GMO, NPP)

NT challenges 1 – lack of clarity

- No generally accepted definition of NT – the use of several definitions is confusing
- NT is an enabling technology – lot of conceivable applications
- Huge variety of development stages
- NT is genuinely interdisciplinary research

NT challenges 2 – risk knowledge gap

- High expectations raise a lot of questions whereas answers are rare, so far
- Research on NT is funded by considerable amount of money
- ➔ Discrepancy between knowledge on risks and the state of development

NT challenges 3 – products

- Increasing number of consumer products on the market
- Practically no reliable information
- Dependancy on information given by producers
- No or unclear regulation for the time being

→ Increasing uncertainty

NT challenges 4 – information vs. regulation

- Very diverse and dispersed research in unintended consequences (EHS/ELSI), not enough data available for risk assessment
- Increasing demand for safety regulations – increasing public pressure on regulators
- ➔ Vicious circle: no data – no regulation – no credibility
- ➔ Establish an independent risk research programme

NT challenges 5 – usable information

- Increasing demand of information, public interest (parliamentary enquiries, media requests, private persons)
- A lot of activities on impact assessment and risk management concerning NT are already performed in the EU and MS and elsewhere
- ➔ Main necessity (and certain shortcoming) = Collection, appropriate treatment and dissemination of available knowledge

Situation in Austria – General political background

- Small country
- High social security level – political value
- tight regulation regarding safety
- conservative, but no negative attitudes against technology in general
- attentive observer of new trends („let’s have a look – then we will see“)
- Past controversies over chemicals, nuclear power, agricultural biotechnology (high hazard potential)
- No controversy over computers, cell phones, medical biotechnology (high expected individual benefit)

Internal: Nanotechnology Challenges

- Lack of clarity – NT is a fuzzy term
- Risk knowledge gap – we know more about the technology than about risks
- Increasing number of products – but unclear regulatory situation
- Regulatory pressure vs. lack of data
- Increasing demand for reliable information

External: NT safety - timeline

- 2000 NSF reports (USA) on societal implications of NT
- 2003 TAB-report (D)
- 2004 EU strategy
- 2005 EU action plan
- 2006 Publifocus (CH), Action Plan (D)
- 2007 Research Strategy (D)
- 2008 Action Plan (CH)
- 2010 Action Plan (A)

3 principles in action plans

- Transparent communication and public dialogue
- Independent risk and safety research
- Integration on international level

Solution - Precautionary Principle

- Lack of scientific data but some indications on risk related aspects
- Decisions under uncertainty
- Specific measures can be taken by the member states

Precautionary Principle (EU COM 2000 (1))

- Management of uncertainty
- Opens political range and new possibilities
- Contributes to new solutions for tedious conflicts
- Capacity to decide and to act
- Integrates new relevant knowledge

NanoTrust – basic data

- funded by the Ministry of Transportation, Innovation and Technology (BMVIT)
- Term of contract: 3 + 3 years + 2,5 years
 - (10/2007 – 9/2013 – 05/2016)
- Interdisciplinary team
 - 3 full term scientists + 1 project leader
 - physics, cell biology/toxicology, philosophy/risk research, technology assessment
 - external contractors
- international advisory board – strategic matters
- Internal project advisory board – scientific matters

NanoTrust - Aims

- **Information** on environmental, health and security related topics regarding NT: survey, collect, analyse and summarise this information
- **promoter of discussion**: workshops, networking (target groups: general public, administration and research community)

Dissemination

- **publications**
- **events**
- **network activities** (national, international)
- **web-site** (nanotrust.ac.at)



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dossiers 
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- Short summaries (4-6 pages, online) of the recent state of knowledge for specific topics
- high information demand, repeatedly emerging, controversial
- **Target audience:** political decision makers, regulators, research, science journalists, interested „public“

Thank you for your attention !

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