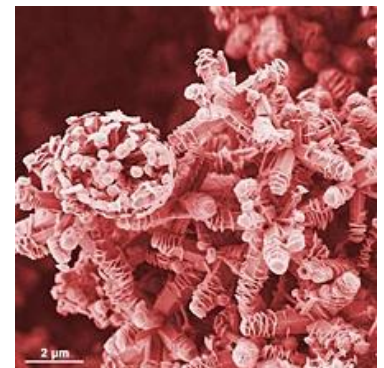


Think Small – Grow Big

2010 International Conference on Nanotechnology for the Forest Products Industry
Session 21 – Consumer Perception / Regulation and Nanotechnology

Public Perception of Nanotechnologies - Requirements for Business Communication

Dr. Antje Grobe
Risk Dialogue Foundation, Switzerland
University of Stuttgart, Germany
University of St. Gallen, Switzerland



Source: Nano & Art Competition

Overview

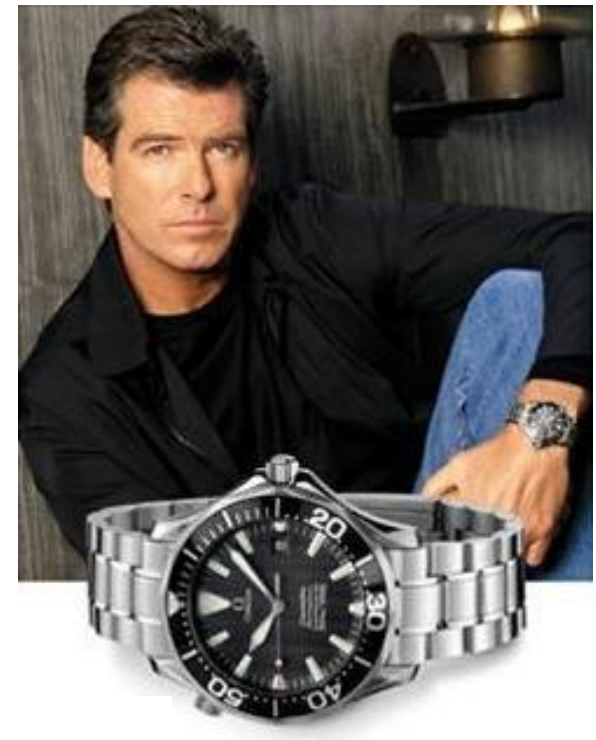
1. Introduction: Talking about a dream
2. Perception of Nanotechnologies
3. Information needs
4. Conclusions: How to communicate about nanotechnologies

Talking about a dream ...

... an example from the Swiss Chronometer Industry

Jean-Claude Biver, CEO Hublot,
Geneve

“We do not sell chronometers.
We sell a dream”



Applications of Nanotechnologies



Every-Day-Use Items

- Easy-To-Clean / Coatings / New Materials
- Functional Textiles / Sports goods
- Cosmetics & Health Care
- Food

Health Water

- Pharmaceutis / Cancer Therapie
- Water treatment / Environmental technologies
- Energieefficiency / Solarpower / Alternative traction technology
- Mikroelektronics

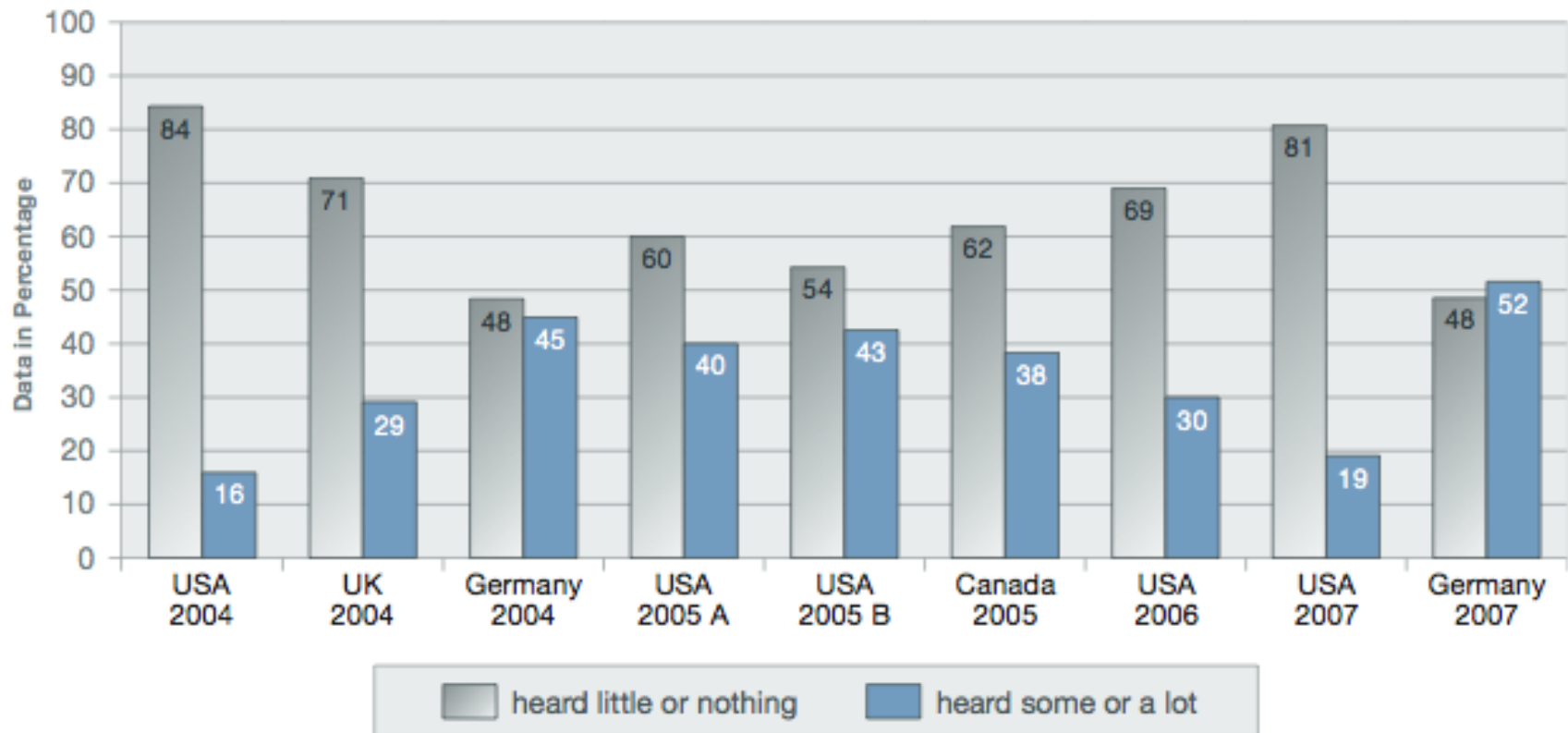
Energy

Consequences...

1. The dream you sell is called:
INNOVATION
2. Public Perception is referring to very different applications:
DIFFERENTIATION IS NECESSARY
3. Forest industry products need:
BUILDING OF AN OWN PROFILE

2. Public Perception

Public Perception of Nanotechnologies (IRGC 2008)

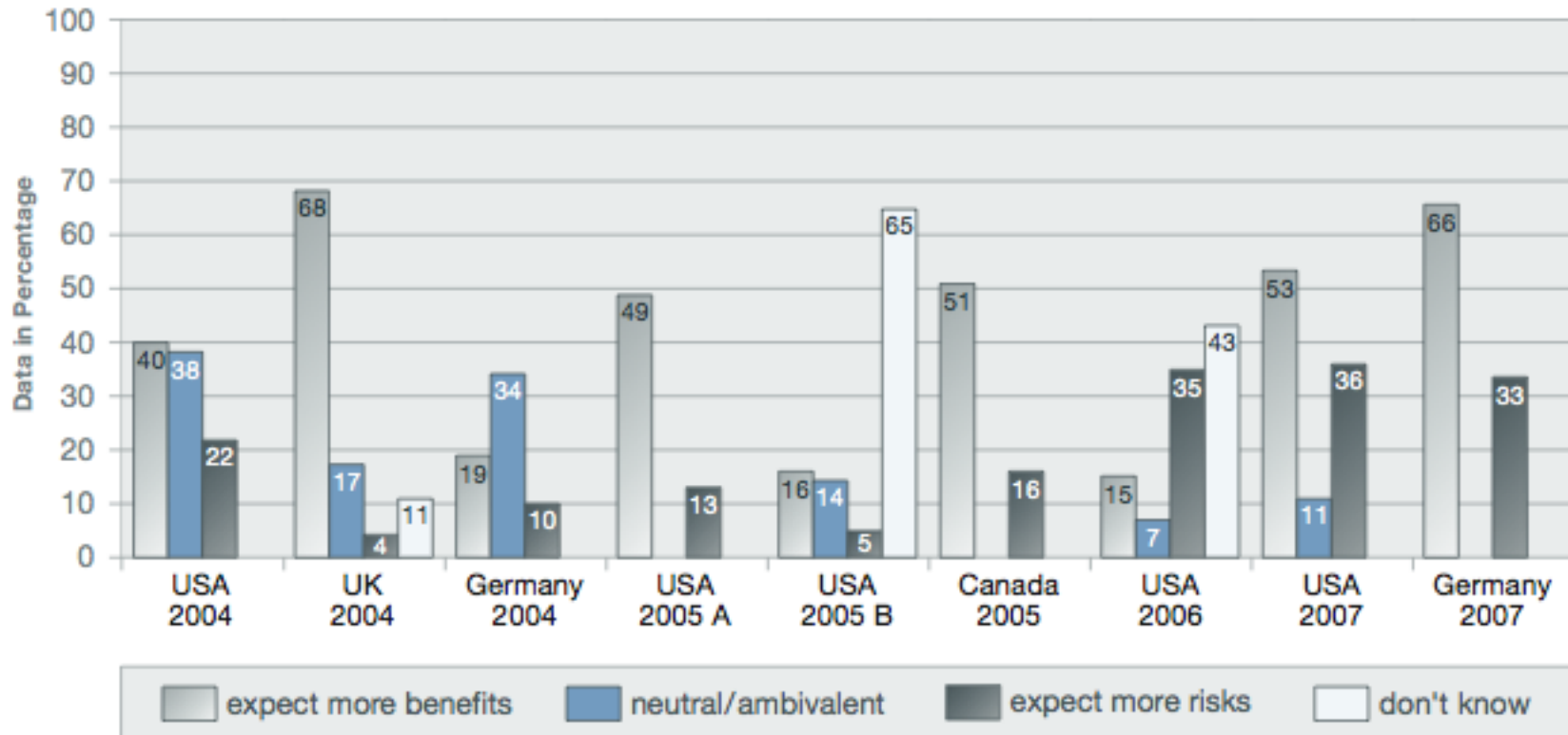


Source: IRGC 2008: Risk Governance of Nanotechnology Applications in Food and Cosmetics
 A report prepared for IRGC by Antje Grobe, Ortwin Renn and Alexander Jaeger,

Key:

USA 2004: Cobb, M./Macoubrie, J. (2004); UK 2004: BMRB Social Research (2004);
 Germany 2004: Komm-passion (2004); USA 2005 A: Einsiedel, E. (2005);
 USA 2005 B: Macoubrie, J. (2005); Canada 2005: Einsiedel, E. (2005);
 USA 2006: Hart, P. (2006); USA 2007: Kahan et al. (2007);
 Germany 2007: BfR (2007)

Public Attitudes towards Nanotechnologies (IRGC 2008)

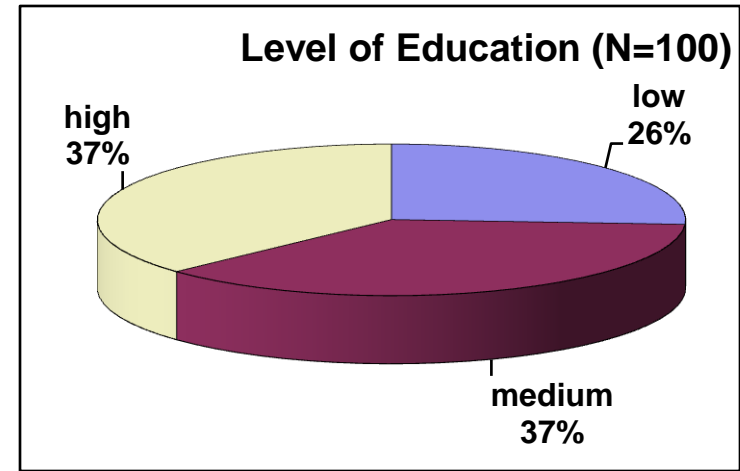
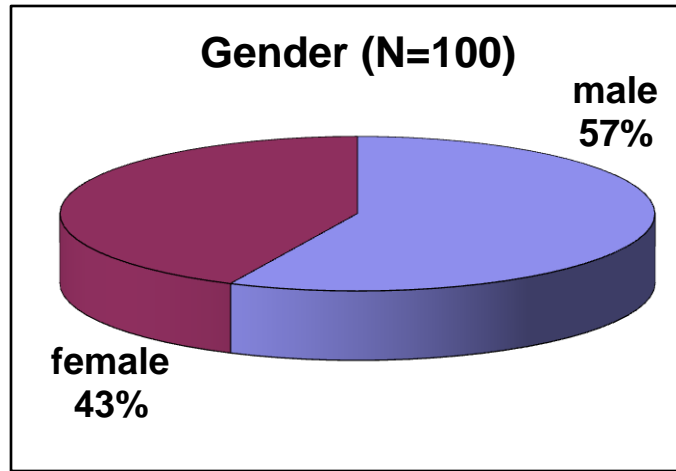


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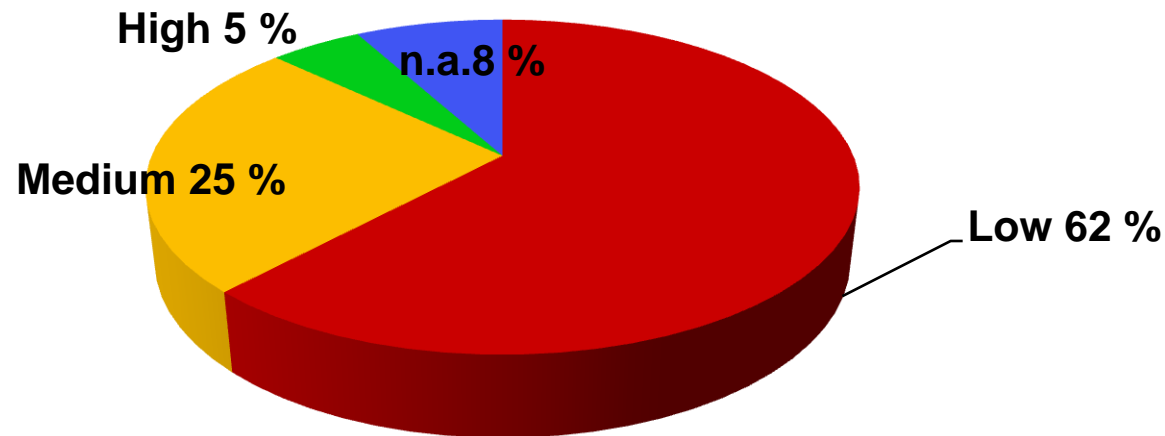
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What do consumers know about nanotechnologies? (German / Swiss Survey, Grobe et al. 2008)



Self-estimation about the knowledge (N=100)

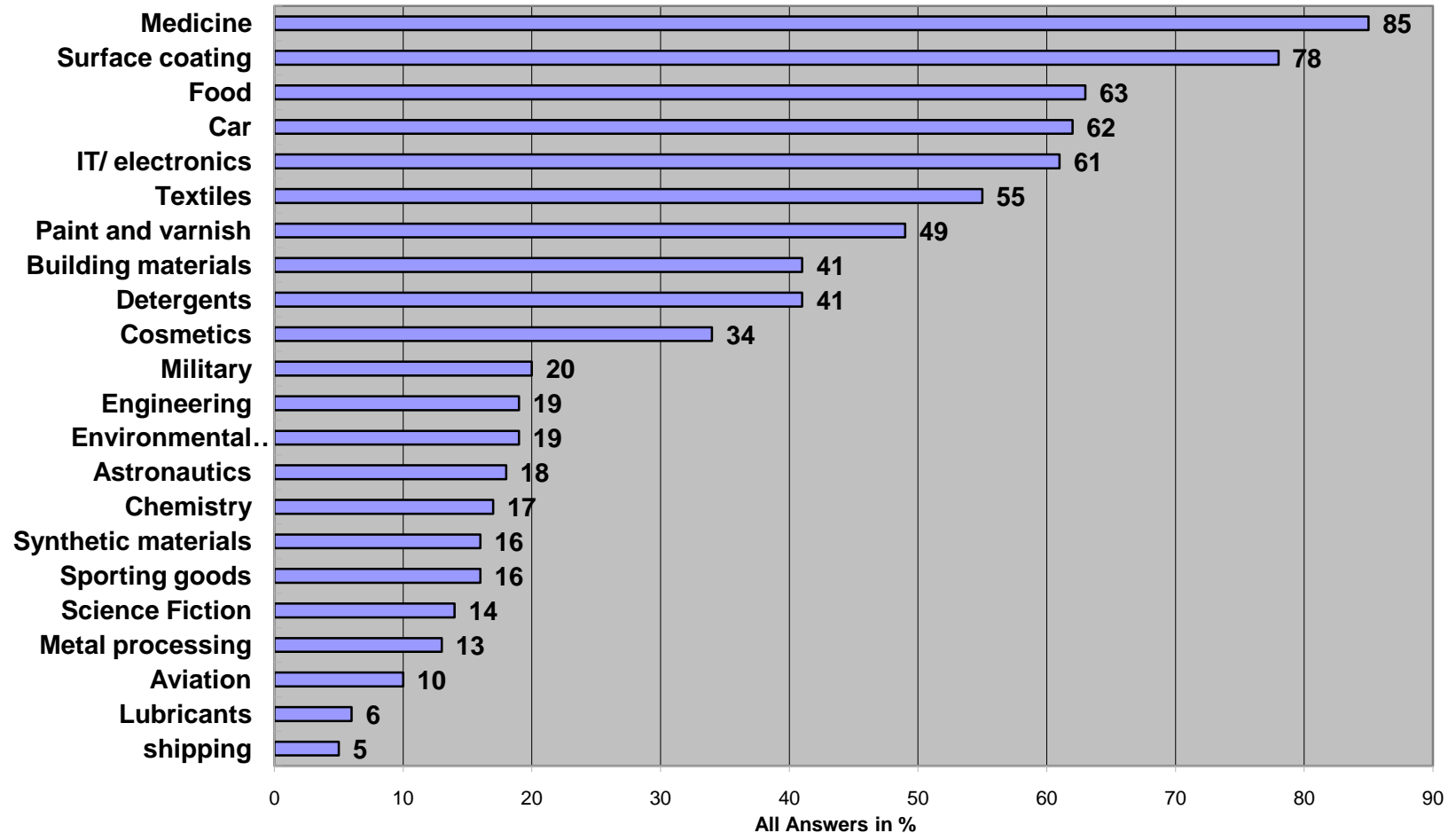


Source:

„Nanotechnologien: Was Verbraucher wissen wollen“ (Grobe, A. et al. 2008)

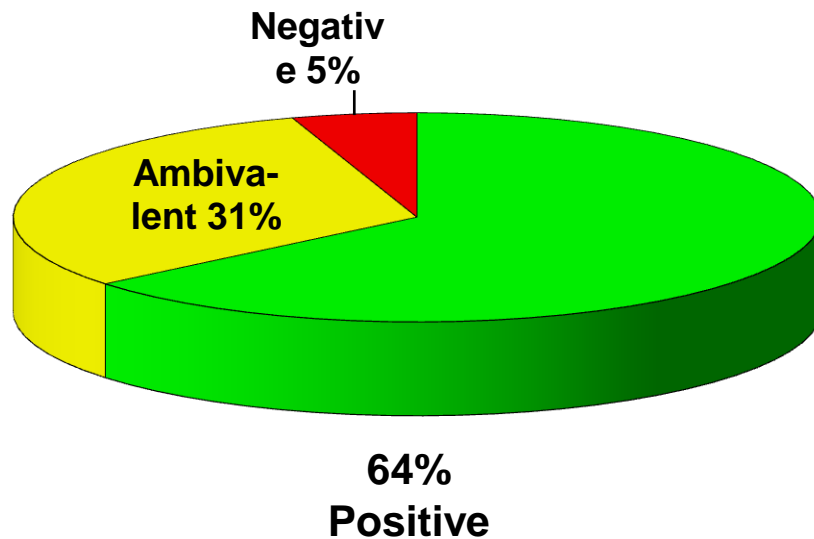
What consumers really know (Grobe et al. 2008)

Mentioned areas of application, n=100
Average of 7-8 applications

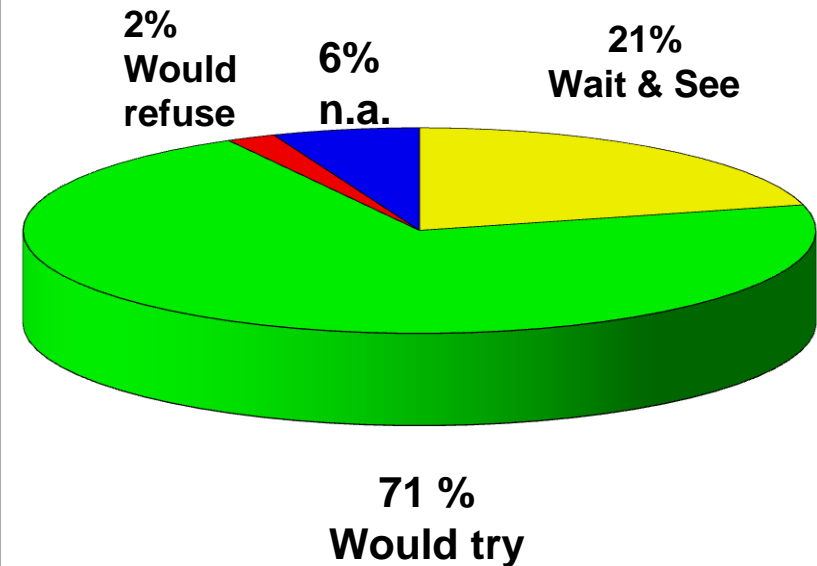


Consumers Attitudes? (Grobe et al. 2008)

Attitudes towards Nanotechnologies



Would you try a nanoproduct?



Stability of the attitudes?

Coupled with the generally positive attitudes ...

Consumers mentioned their concerns about risks:
87 % mentioned risk for human health
29 % mentioned environmental risks

Therefore:

- **The positive attitudes are fragile**
- **Consumers ask for responsibility, transparency and easy-to-access information**

Risks in the focus of the media debate

Basler Zeitung (26.10.2009):

„Nano-Particles are dangerous as Asbestos?“

Bildquelle: <http://bazonline.ch/wissen/technik/NanoPartikel-aehnlich-gefaehrlich-wie-Asbestfasern/story/30434698>

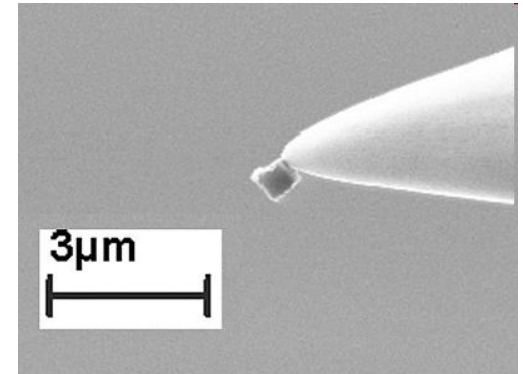
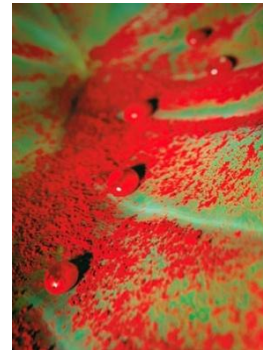


tagesschau.de

(21.10.2009):

Small Parts, a huge potential – and dangerous?

Bildquelle: <http://www.tagesschau.de/inland/nanotechnik100.html>



WDR

(21.10.2009):

„Small, but nasty – Nanopartikles“

Bildquelle: <http://www.wdr.de/themen/wissen/forschung/nanoteilchen/index.jhtml>

ZDF

(21.10.2009):

„The Federal Environment Agency warns the public about Nano-Food and Textiles „

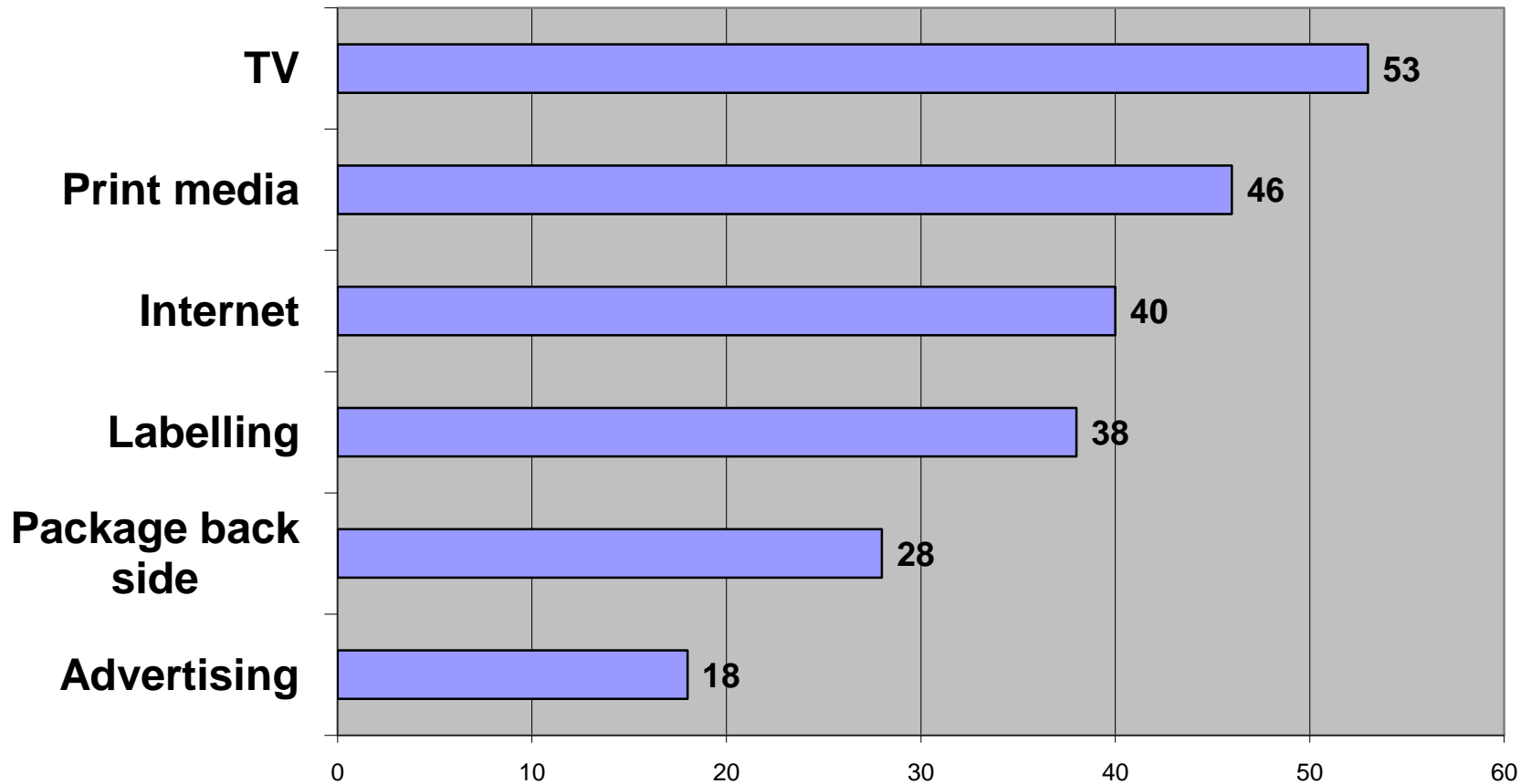
Bildnachweis: <http://www.heute.de/ZDFheute/inhalt/2/0,3672,7914434,00.html>



3. Information needs

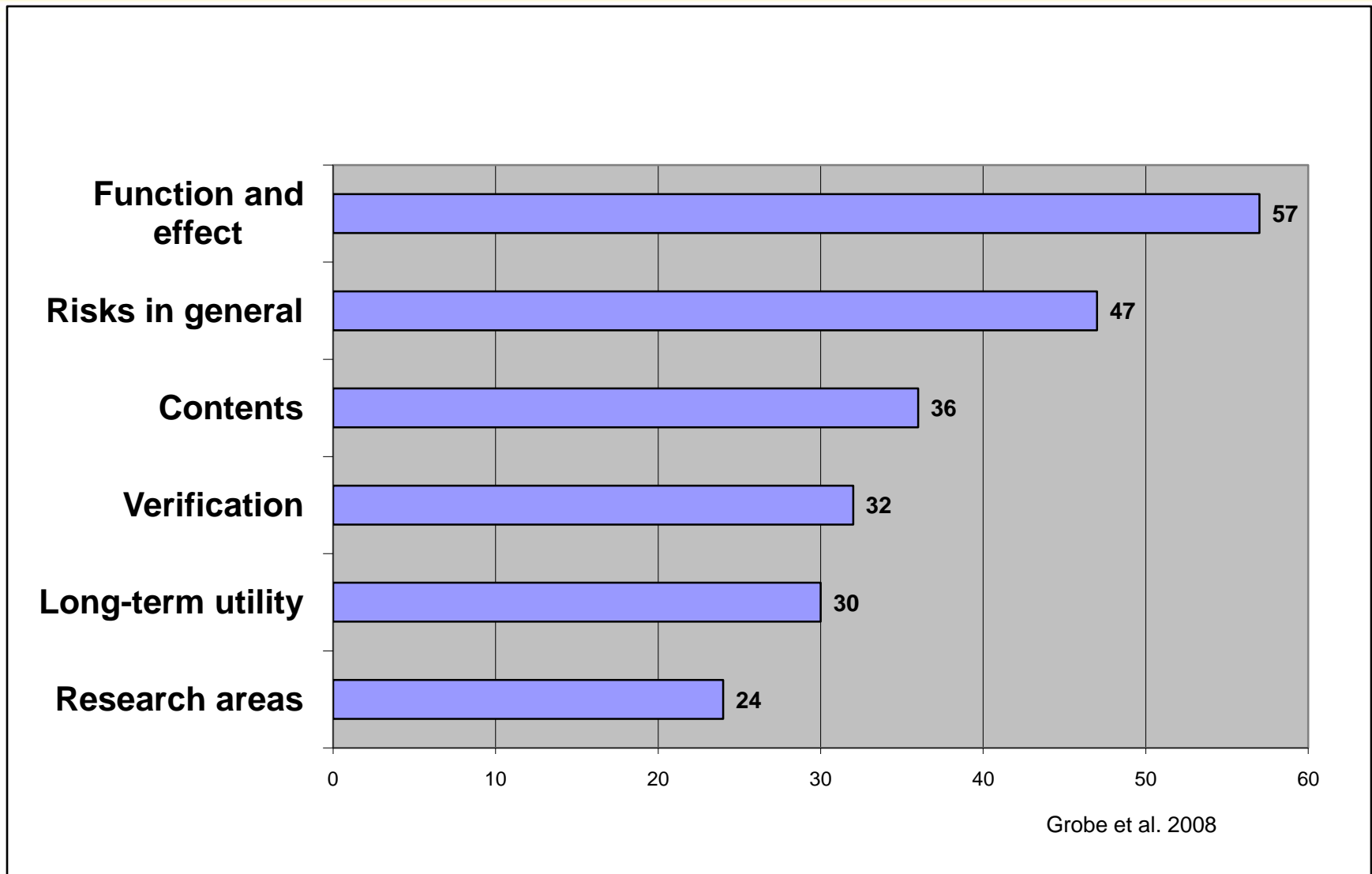
How do consumers want to be informed?

Requested information media

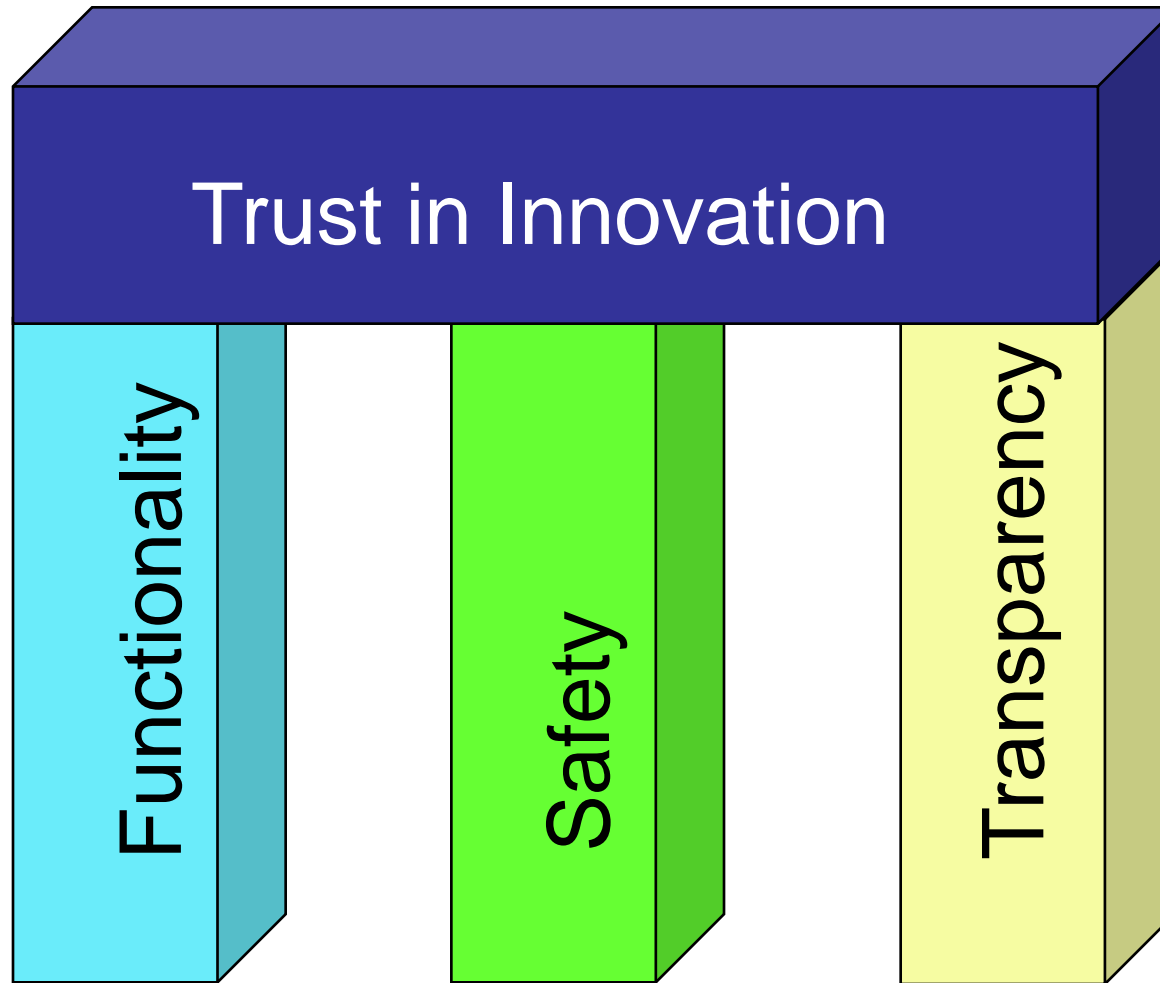


Grobe et al. 2008

Information Needs: What consumers want to know?

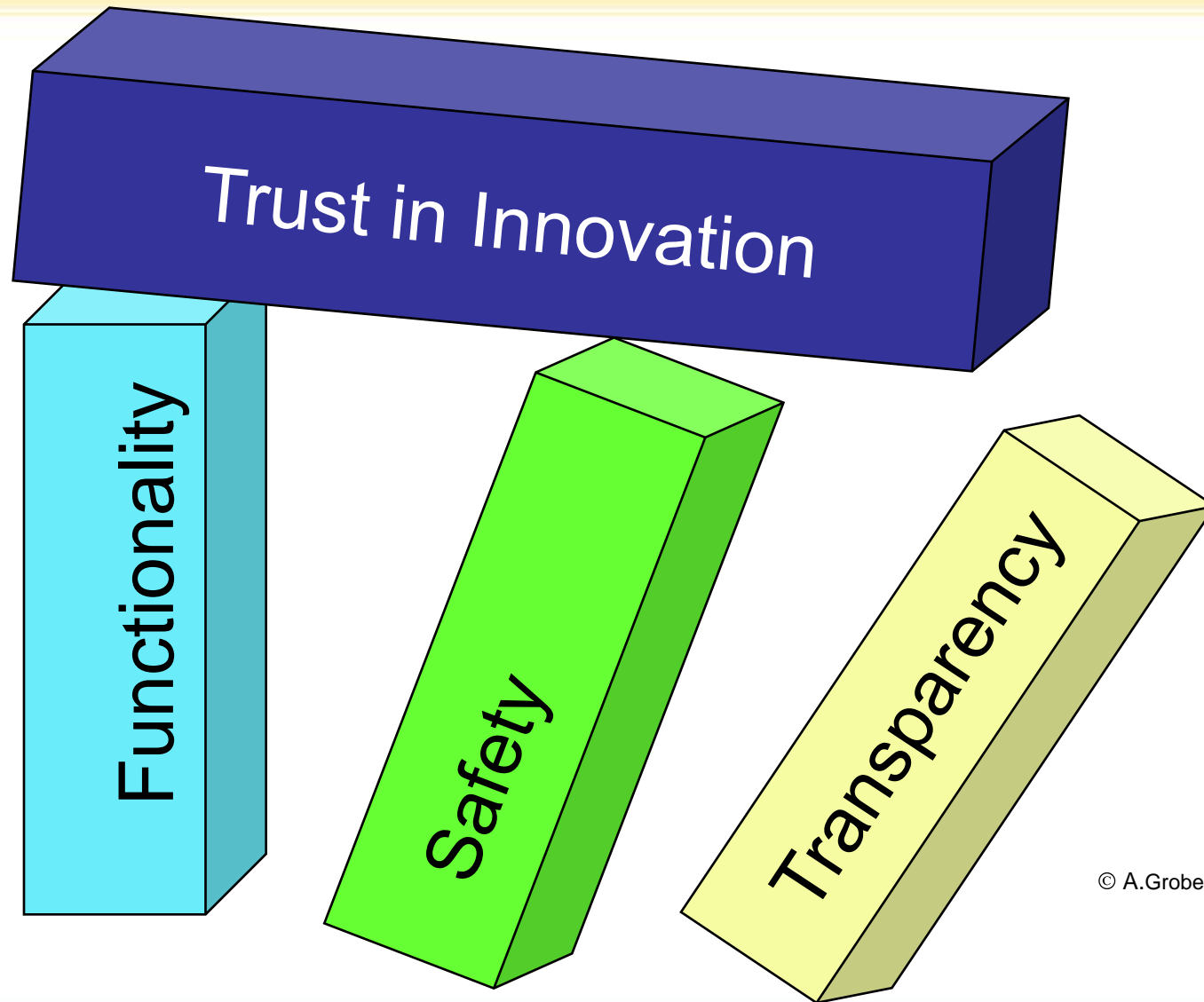


3 Pillars of Trust in Innovation



© A.Grobe

3 Pillars of Trust in Innovation



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Regulator's Focus

Identified Key Challenges:

- Rapid technological change
- Uncertainty of commercialisation paths
- Uncertainty regarding nanomaterials risks
- Uncertainty regarding the suitability of regulatory framework
- Uncertainty regarding regulatory and scientific resources”

(Regulating Nanomaterials: A Transatlantic Agenda,
R. Falkner et al. 2009)

4. Conclusions

Summary & Conclusions

1. A dream was sold ...
... and perceived with positive expectations and some (healthy) mistrust
2. Related to the upcoming risk debate (regulators), less was communicated about nanotechnologies by industry
3. In between the media perception has changed with a tendency to risk related issues

„You can not not communicate“

Paul Watzlawick

To do: Communicate to the public

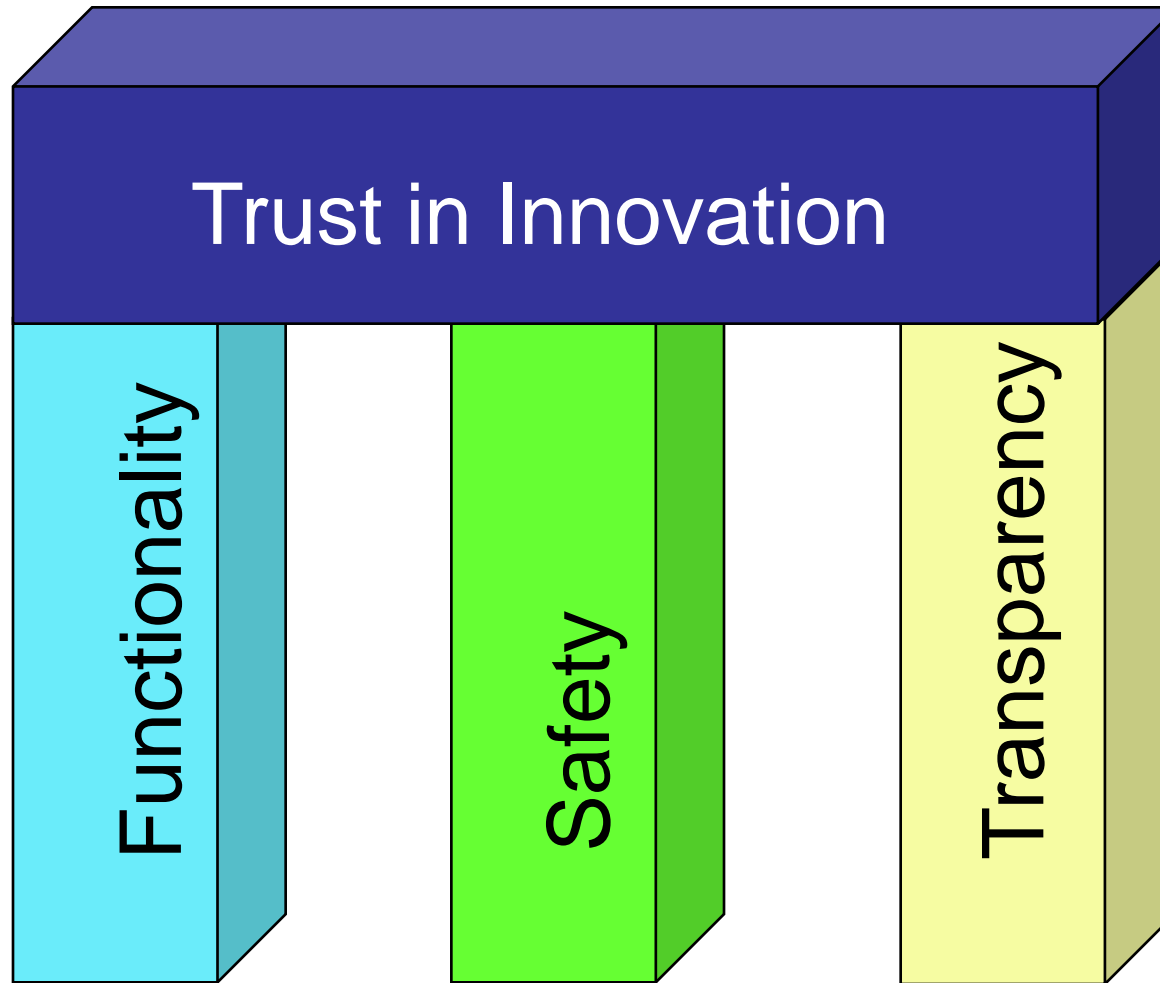
- Function & Properties (long term)
 - Benefits (quantification)
 - Ingredients / Substances / Technologies
 - Risk Assessment & Safety (case-by-case, independently controlled)
 - Responsibility
 - Engagement in Stakeholder Dialogues
 - Engagement in Public Participation
- ... on the web, with easy-to-access information
- ... support public formats (TV, Science Shows, ...)

To do: Communicate along the value chain

- Material Safety Data Sheet
- Technical Information / Additional Training
- Case-by-Case Risk Assessment Studies / Reference Materials

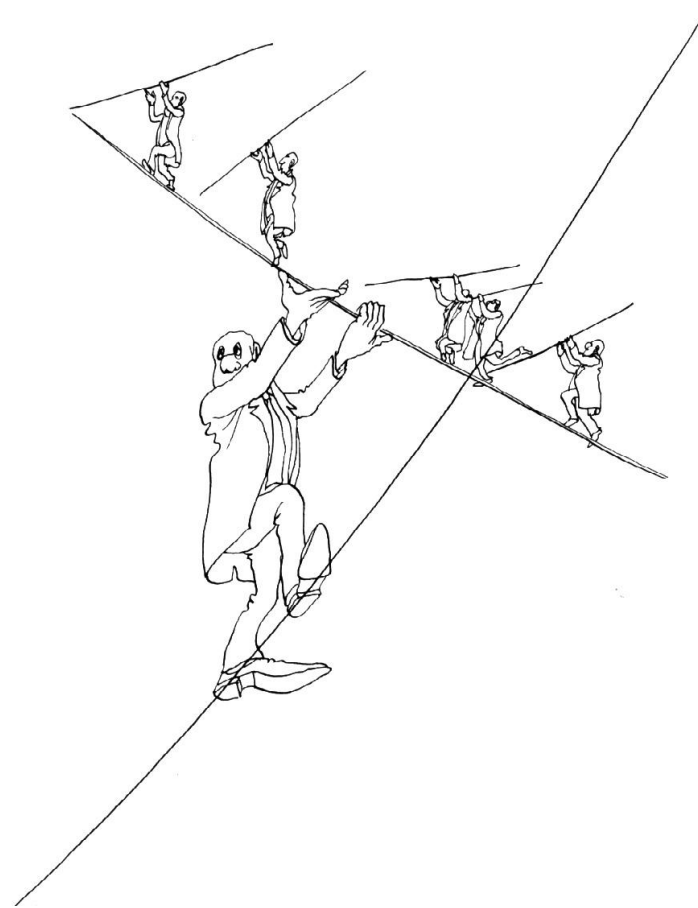
- Engagement in Stakeholder Dialogues
- Requirements of REACH and specific EU-Directives

3 Pillars of Trust in Innovation



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There is no alternative to go on



Contact:

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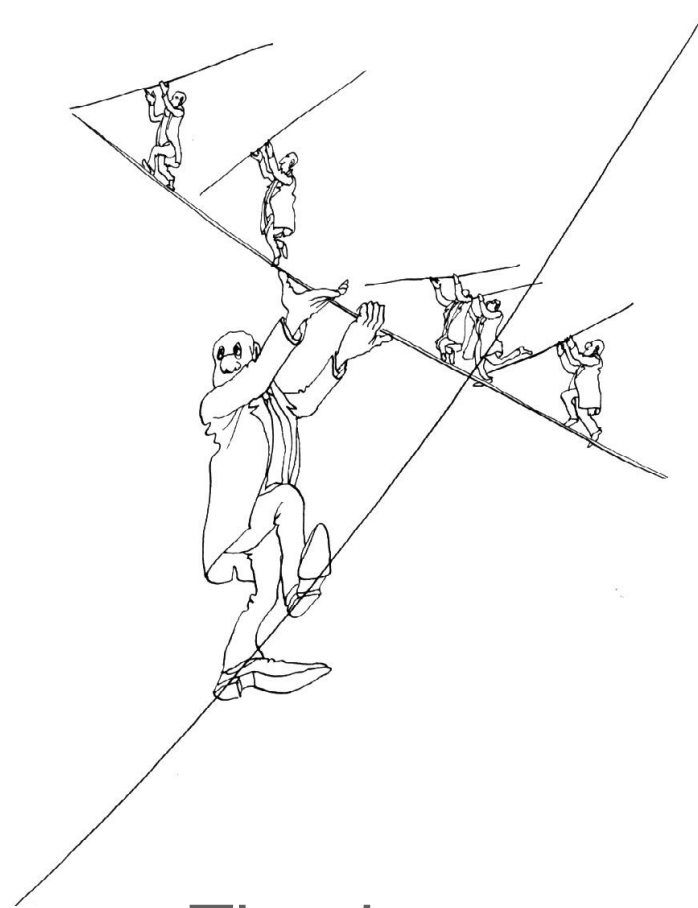
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Welcome to the dialogue



Thank you

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