



INDTECH2018

Innovative industries for smart growth

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Vienna, Austria

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PILLAR 2

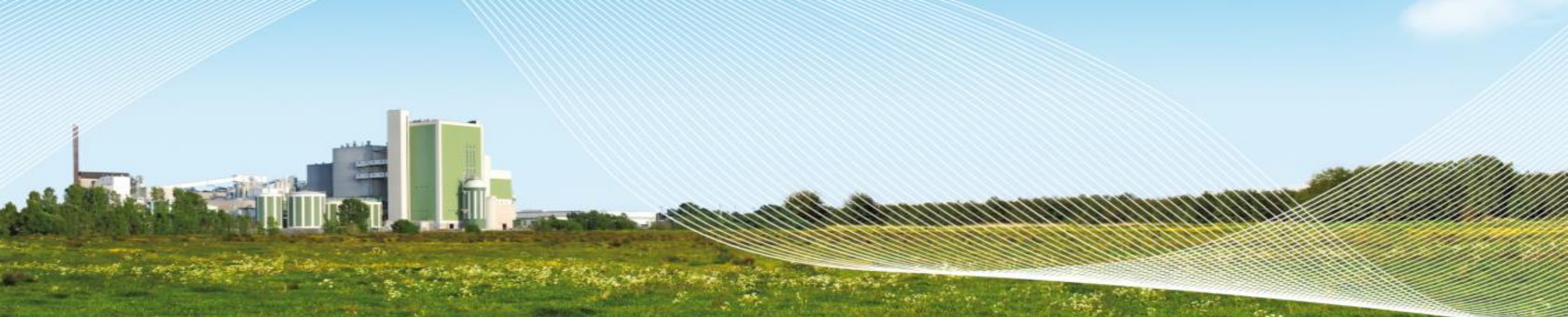
Session 2.1

The challenge of coupling the Safe by Design principle to the regulatory process of new NMBP Technologies

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Nanotechnologies

Safe by design, perception and acceptance : finding an efficient pathway for innovation ?

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- State own private company having >50 years of experience on risk assessment and safety enhancement
- A staff of 600, including 350 engineers / 80 M€/y
- Full scale facilities (mesocom, animal facilities, battery field test, nano-safety platform, 1000 m³ chamber)
- Headquarters extend to 50 ha
- 25 000 m² of laboratories
- More than 1 000 customers (worldwide)
- Always ~50 PhD students & 20 Post-doc fellowships

A synergy between services for private customers, research activities and technical support for the government, a key player in uncertain regulation where anticipation is a lever



Nanotechnologies : before accepting ...is it safe and sustainable ?



Phys-Chem characterization (size , shape, chemistry...)

Hazard (flammability, explosion, dustiness, (eco)toxicology,...)

Exposure characterization (workplace, environment...)

Safety characterization (product, production)

Life cycle of products (using, aging & durability)

End of Life of products (disposal, incineration, recycling)

Socio-Economic analyses (cost-benefit analyses) ;

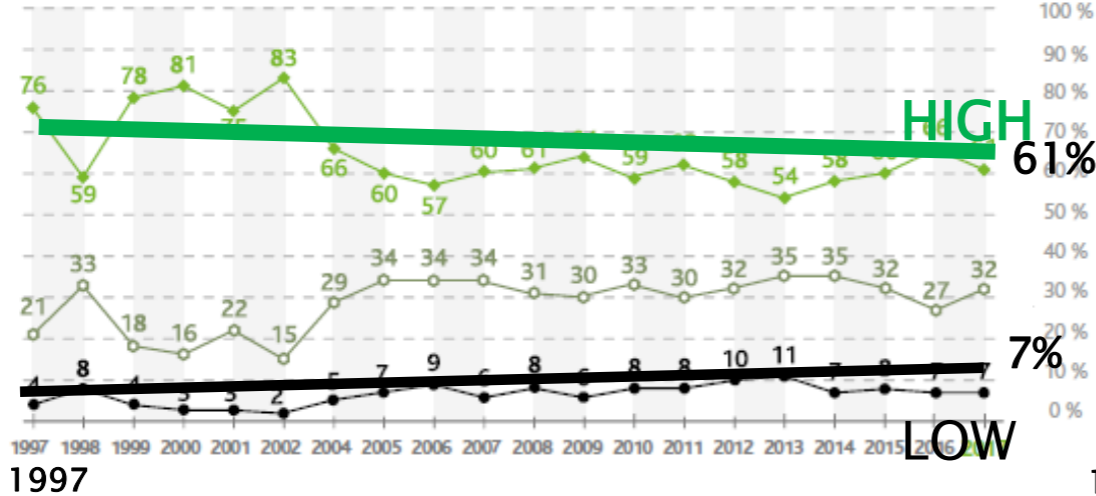
Impact on market (product, production, use)

Regulatory & Societal appropriation

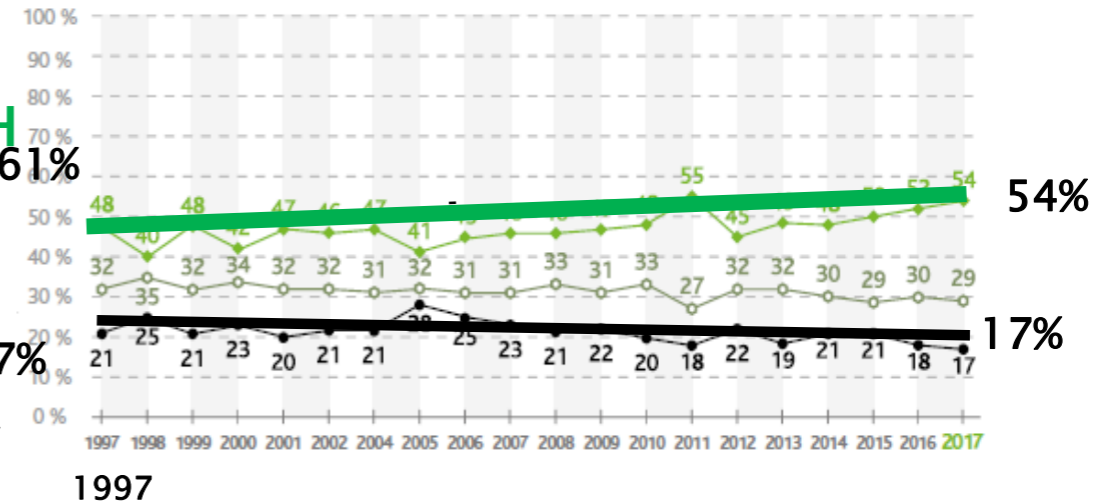
Barometer on risk and perceptions : Do you think that the risks for french people are

...

Road accidents

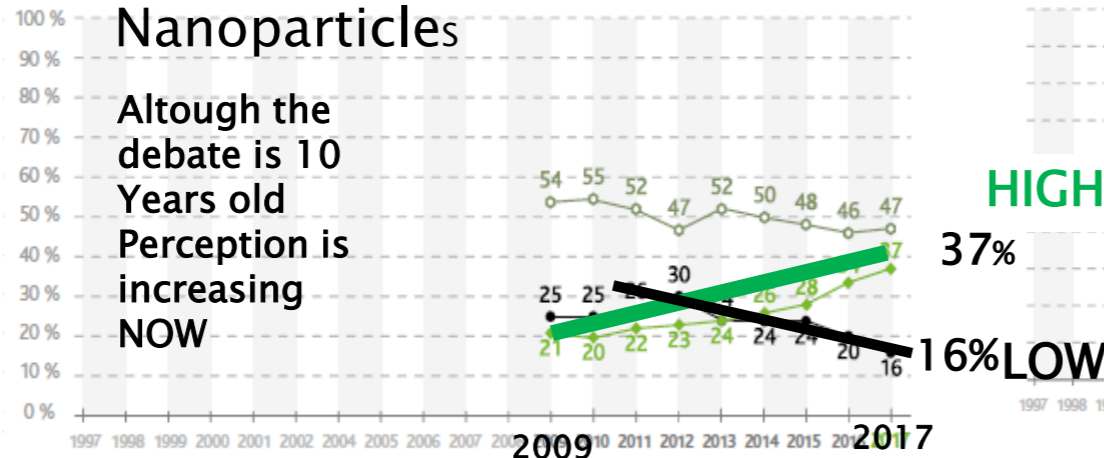


Nuclear Power Plants

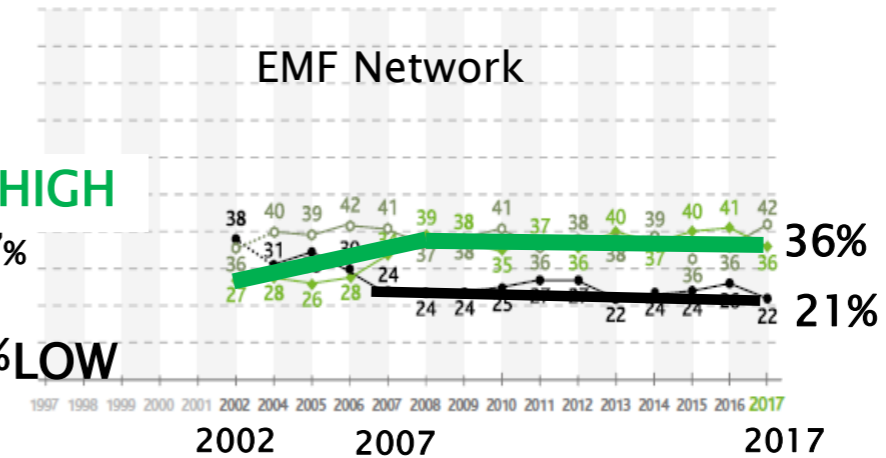


Nanoparticles

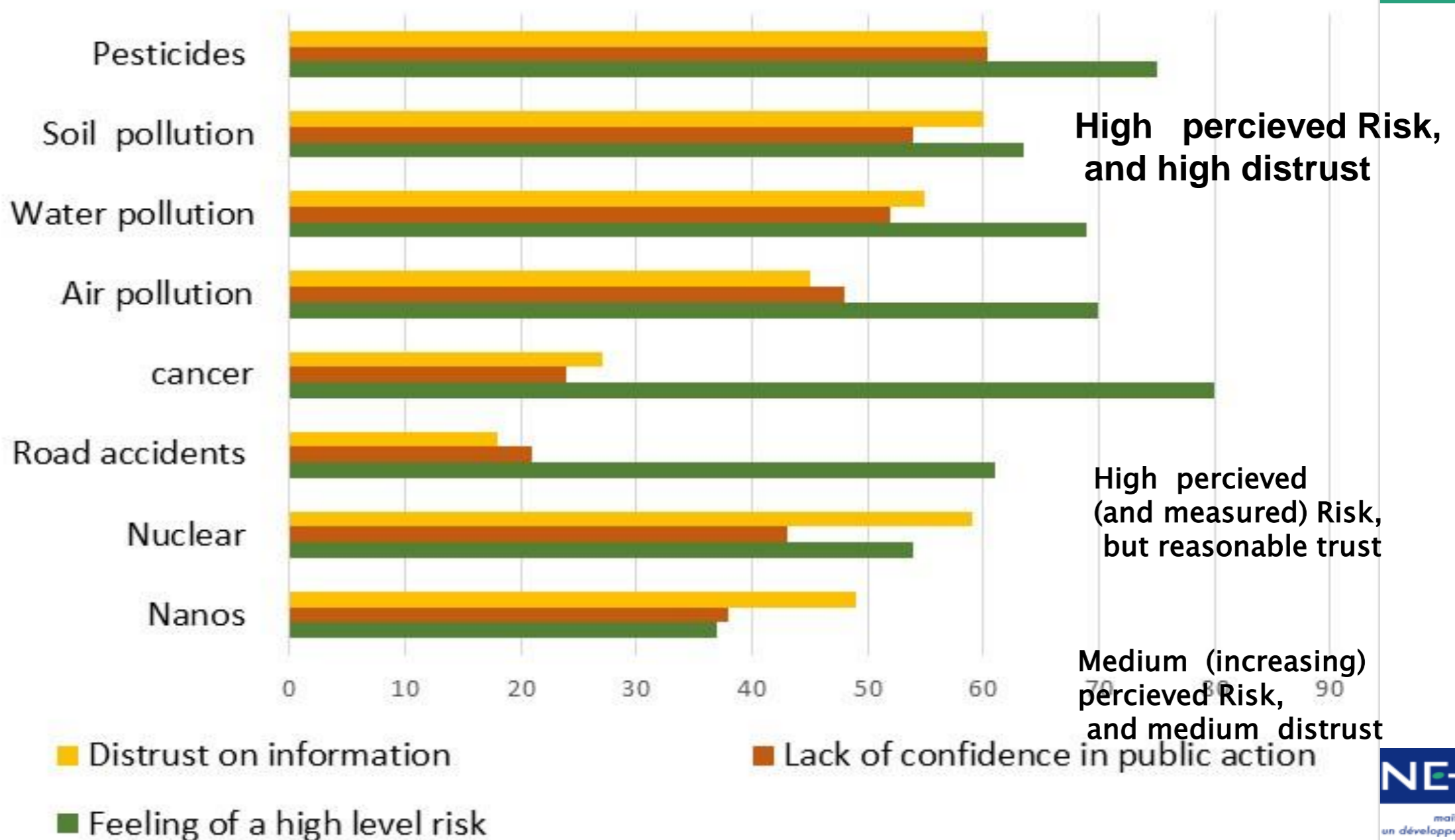
Although the debate is 10 Years old Perception is increasing NOW



EMF Network



Three approaches for risk perception :
 High/low, I trust what I am told, I think « they » are efficient



Nanotechnologies : are partners believable ? Credited of Efficiency ?



Nanoreg (s) EC4sate...Malta.

-> techniques, expertise, standards.

A level of risk not (yet) perceived as so high.

The issue is on trust ; not the worse situation (cf pollution), but not the best one.

It is time to build on trust.

External and shared “recognition ” on assays and procedures.

Involvement of third parties and NGOs in the recognition process.

Including “soft” processes such as Socio-Economic analyses and societal impact analysis