



# Enabling Responsible Innovations of Nanotechnologies: European Chemical Industry's Strategy on Nanomaterials and Nanotechnologies

DG SANCO Safety for Success Dialogue - 2 October 2008



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# Chemical Industry view

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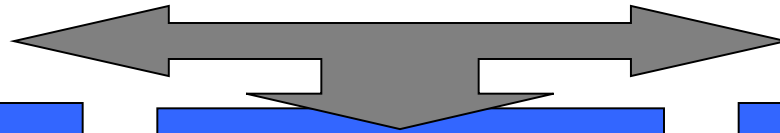
- **Cefic's Strategy on Nanomaterials and Nanotechnologies**
- **Substances in our focus**
- **Safety**
- **Some applications**
- **Leading in innovations - Possibilities**
- **Transparency – the key to success**

# Cefic's Strategy on Nanomaterials and Nanotechnologies

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**Vision**  
Sustainable Nanomaterials  
and Nanotechnologies



**Safety**

**Innovation**

**Transparency**



# What do we want to achieve?

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- **Technology leadership**
- **Harmonised global standards**
- **Safety: workers, consumers, environment**
- **Engagement: policy makers, regulators, stakeholders**
- **Transparency**

# Substances in our focus – OECD Ref. Nano

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Titanium  
dioxide

Polystyrene

Aluminum  
oxide

Dendrimers

Carbon black

Fullerenes  
(C60)

Silver  
nanoparticles

Nanoclays

Cerium  
oxide

Iron  
nanoparticles

Zinc oxide

Single-walled  
carbon nanotubes

Multi-walled  
carbon nanotubes

Silicon  
dioxide

# Improving tools for risk assessment

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## Hazard Characterisation

### **Cefic Long-range Research Initiative**

- Development of tiered testing strategies for nanomaterials

### **OECD Ref. Nano**

- 14 reference nanomaterials will be tested for 59 endpoints

## Exposure Assessment

### **NanoCare & TRACER**

### **OECD**

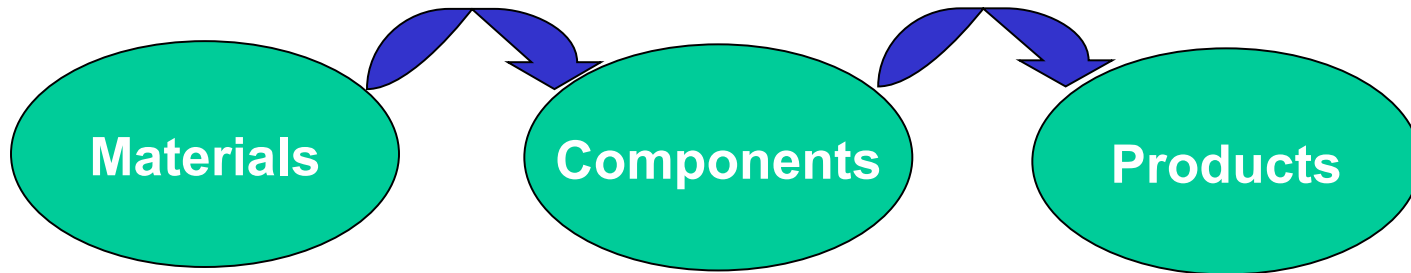
- International Workshop on Exposure and Mitigation

### **Cefic Long-range Research Initiative**

- Environmental fate of nanomaterials



# Some applications



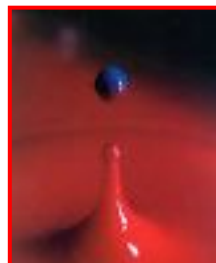
**Anti-reflecting treatments of glass**



**Surface treatments**



**Paint Applications**



**Improvement of fuel cells –ceramic membranes**



**OLED Techniques**



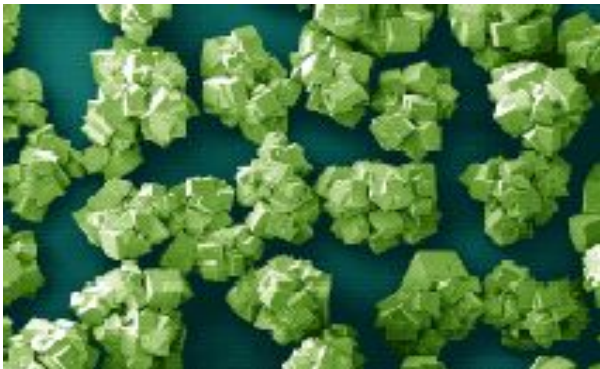
# Innovation – the possibilities



## Environmental Technology



- Solar cells
- Thermal insulation of houses
- Fuel cells
- Hydrogen storage
- LEDs, “cold light”
- Flexible und low energy displays
- Lower weight cars
- Wind mill rotors...  
(polymer-NM-composites)



## Surface enhancement / Coatings



- Self cleaning surfaces
- Scratch resistant surfaces
- Technical textiles
- Water purification







# Transparency

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**“Close the gap between what industry communicates and what stakeholders want to know”**

- **More information from companies (MSDS Nano)**
- **Proactive approach to regulatory working groups**
- **Engagement in national & international stakeholder events**
- **Initiatives on national level**
- **Cefic’s Stakeholder Engagement Process** (June 2008)

# Transparency

## Cefic Stakeholder Engagement Process

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### June 2008 workshop result:

**Find the right ways to share appropriate information to the right groups via the right mechanisms**

### Next Steps:

- **Consultations with Stakeholders (until end 2008)**
- **First Half 2009: small group discussions on pre-consulted themes with stakeholders**
- **Second Half 2009: 2nd Cefic workshop**

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