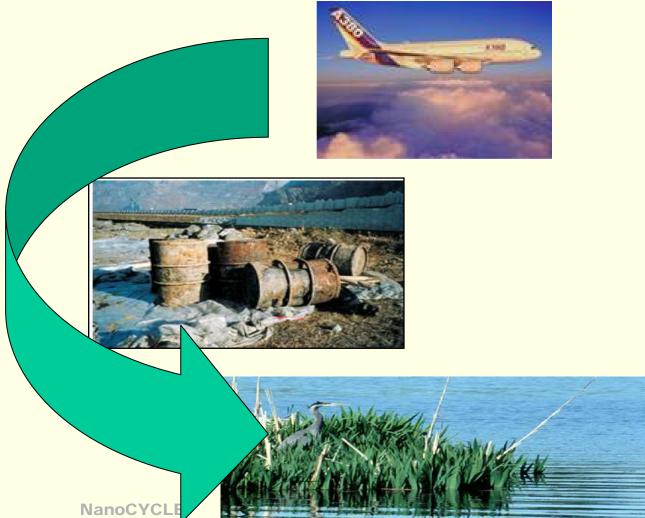


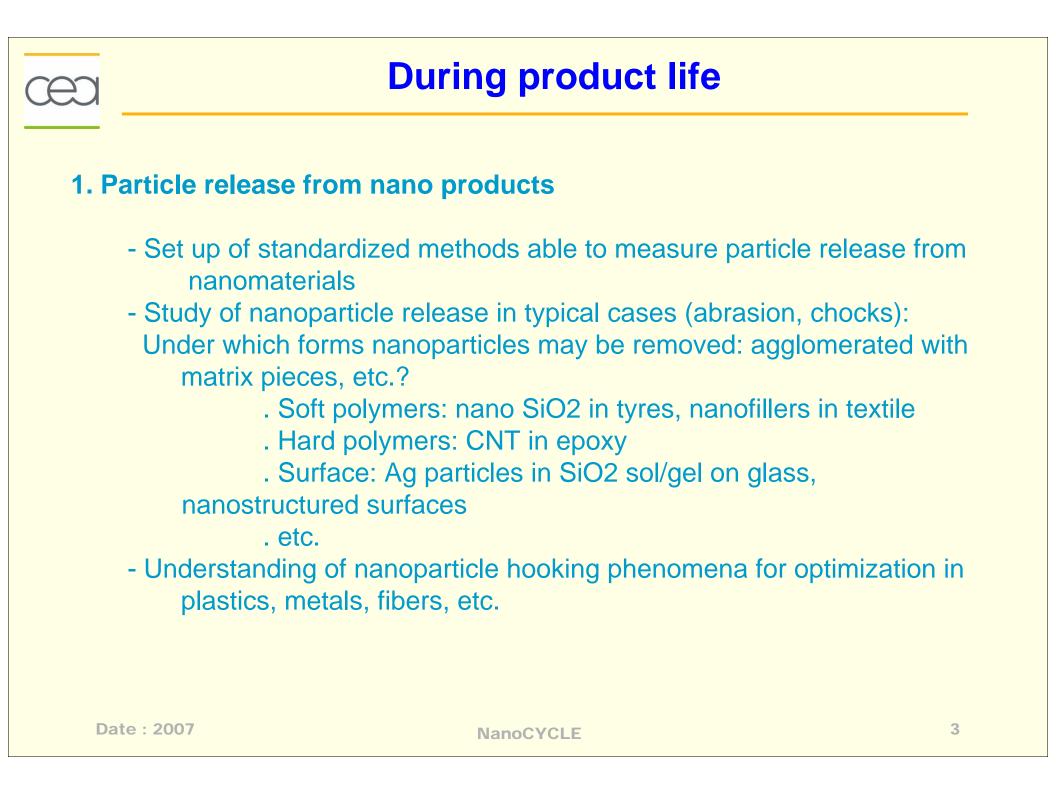
Safety and sustainable development of nanomaterials during their all life cycle



Date : 2007

Motivation & general objectives

- Studies on nanotoxicology and environmental impact will take decades!
 - Proof that nanoparticles cannot escape from objects containing nanoparticles will faster the market introduction of "nano-inside" products
- > Advanced new proposed materials have to present a high recycling-ability!
 - Demonstration of recycling both matrix and nanoparticles in some typical cases is a main issue for sustainable developpment
- > Aprehending degradation of nanomaterials during their end of life is necessary for Environmental concerns!
 - Study of how typical released nanomaterial loose their nanoparticles under bacterial aggresion, UV effects, ..., and incineration.



End of life

2. Nanoproduct recycling:

- Demonstration of nanoparticle and matrix recycling in some typical cases such as CNT in plastics.

- etc.

3. Waste disposal

- How nanoparticles are released from nanomaterial products submitted to UV, bacterial attack
- How they behave when lixiviated with rain: reagglomeration rate
- In which form the nanofillers are emitted during an incineration process?

- etc.

