

# Cleaner Air with Puricles®

Lydia Lee Yuanshan Hans Christian Lehmann

puricles@nanotech.ch



#### A Billion-Dollar Problem

- Smog
- Defective vehicular exhaust catalysts
- Health issues



Source: NPR.org



Source: Argonne National Laboratory

#### Our Solution: Puricles®

- Nanoparticles of titanium dioxide
- Additives mixed into liquids for various surface applications

Puricles® + Paint + Sunlight → Clean Air









#### Business Model



Research

Production

Companies

producing

Paint

& Surface

Finishing

**Products** 

Governments

Companies

Individuals

4

Puricles®

Puricles® Enhanced Products

#### Marketing and Sales

- Ride the wave of going green
- Create a "Puricle" hype starting with Japan (Nippon Paint)
- Showcase product benefits via pilot trials in Japan and Norway
- Leverage on bilateral research MOUs to enter difficult markets

The world is the market.

## Investment Opportunity

 To support our expansion plans for the next 5 years, we will need CHF 2 Million to kick start:

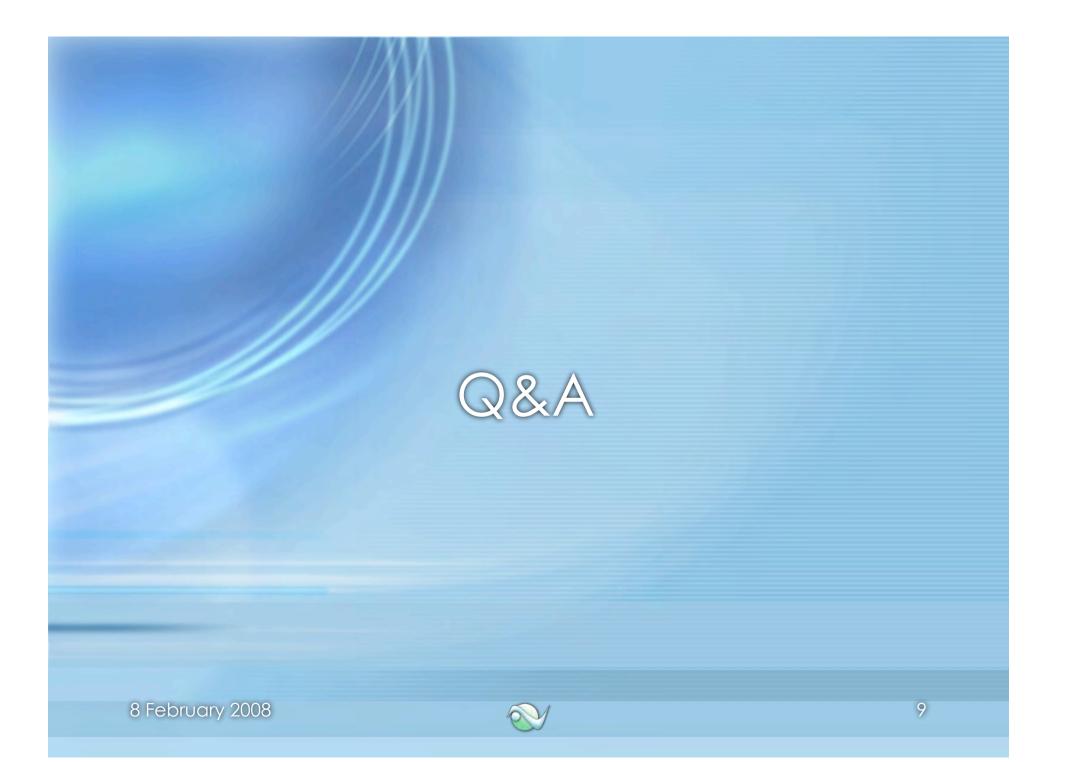
- R&D in product development
- Expansion of facilities
- Marketing

8 February 2008

## Thank You

#### Risks Analysis and Management

- Safety
  - Production
    Customer application
    Application on concrete
    Concrete usage
- Health concerns
- Financial risks
  - Production
  - Competition



## Underlying magic

- Imperfect combustion on engine
  - $\rightarrow$  CO, C<sub>x</sub>H<sub>y</sub>, NO<sub>x</sub> and SO<sub>x</sub>
- TiO<sub>2</sub> nanoparticles are incorporated into the surface treatment of concrete.
- Light triggers catalytic conversion to H<sub>2</sub>O, CO<sub>2</sub>, N<sub>2</sub>
- Science proven by the EU

## Competition

- SIKA AG, BAAR, CH
- BASF SE, Ludwigshafen, DE
- ✓ Not a problem because we have proprietary technology, patent expires 2020.
- ✓ But market should be big enough