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# **NanoSafe™: A Practical Nanotechnology EHS Management Framework**

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# A Brief Overview of NanoSafe

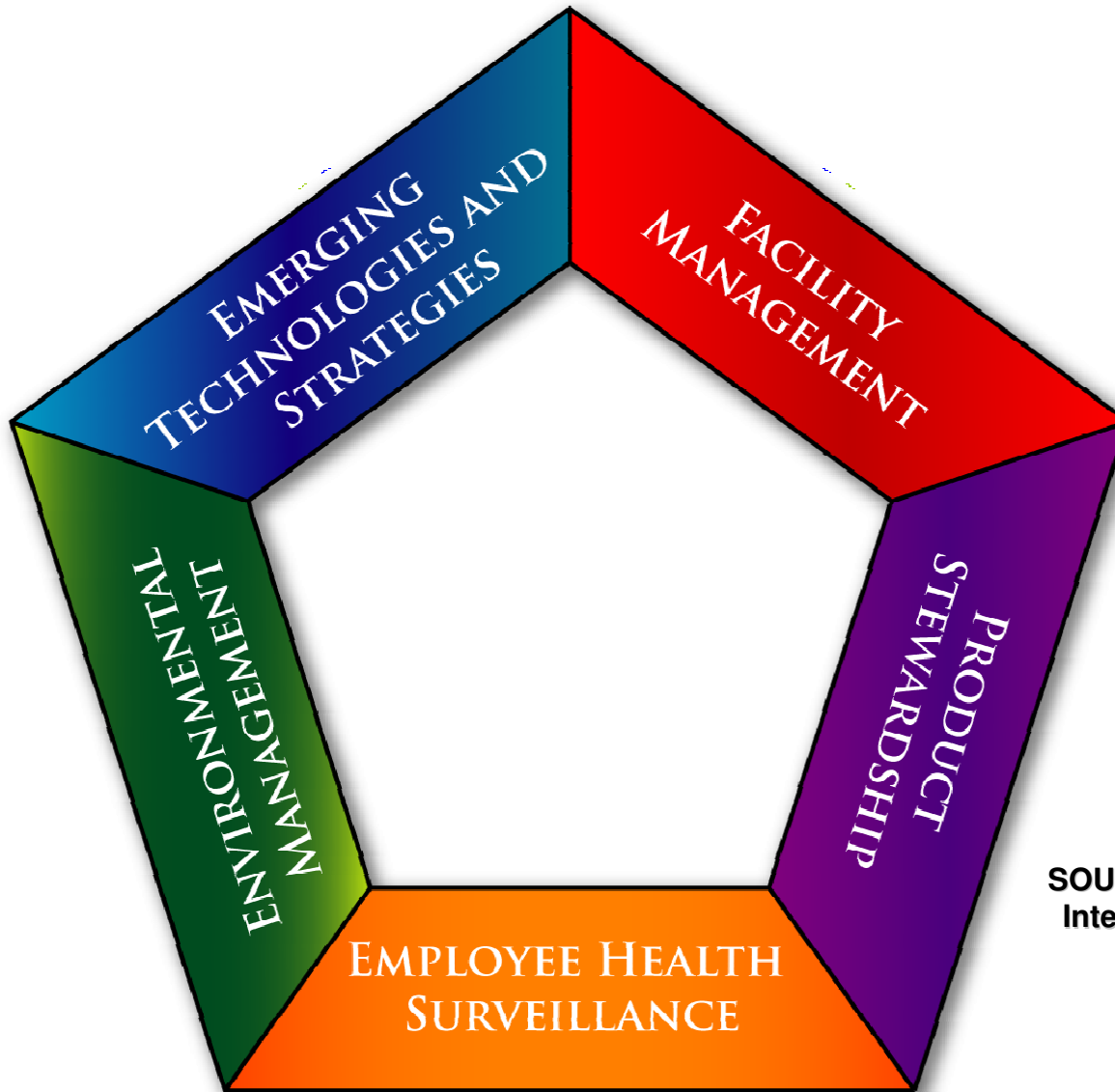
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- **2003** NanoSafe™ founded
- **2005** public debut with NIOSH (Minneapolis, MN)
- **2006** update (Cincinnati, OH)
- **2007** update (Dallas, TX); NanoSafe, Inc. formed



# NanoSafe™

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**Five core elements  
organize nanotechnology  
EHS risk management  
activities**

SOURCE: Hull, Hoover, Geraci, Wilson, 2005, 2006.  
International Symposium on Nanotechnology and  
Occupational Health. Minneapolis, MN.



# What Makes NanoSafe Unique?

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- Developed from within small nanotech business
  - Revenue generator
  - 100% self-funded
- Dual paths
  - Identify/manage risks (internal)
  - Develop/transition innovative EHS tools, strategies (external)
- Transition results
  - Conferences, publications
  - Commercial solutions
- *Internal project → Independent company*



# Resources for Small Business (WWICS)

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- Small and Medium-sized Enterprises (SMEs) have limited resources for proactive nanotech EHS programs
- WWICS Project:
  - Develops resource document to specifically address SME needs
  - Leverages NanoSafe progress
  - Report forthcoming...

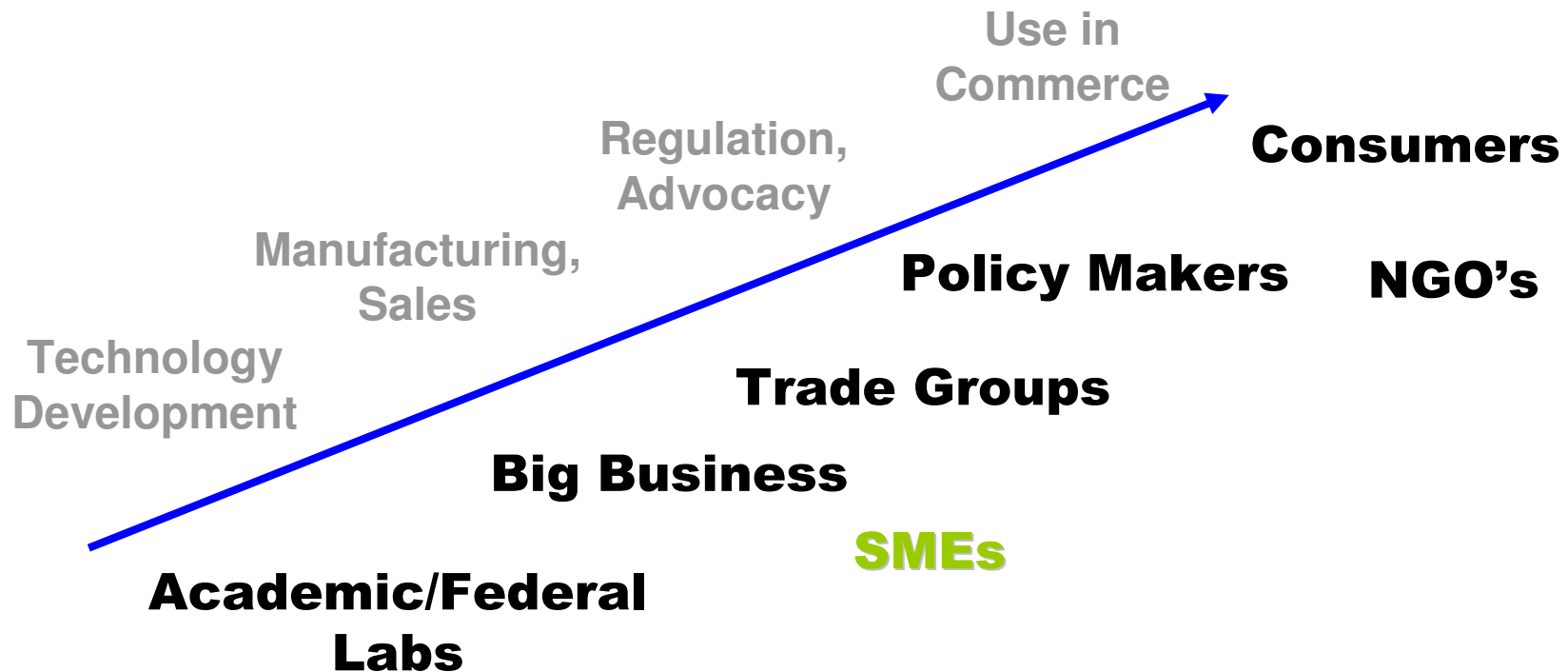
***“Nanotechnology EHS and Small Business: Developing Practical Approaches to Risk Management”***

*\*End of 2007: report will be available at [www.nanotechproject.org](http://www.nanotechproject.org)*

Coordinators: Rejeski, Maynard, Lekas WWICS



# EHS Solutions Vary by Stakeholder



**SMEs: low-visibility stakeholder group,  
yet *major* nanotech player**



# Small to Medium Sized Enterprises (SMEs)

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- Globally
  - “90% of all the businesses in the world”
  - “responsible for 50-60% of total employment”

**SOURCE:** United Nations Environment Programme. 2003. *Big challenge for small business: sustainability and SMEs. Industry and Environment*, 26 (4), 52 pp.

- U.S.
  - ~25 Million small businesses
  - >99% of all employers
  - ~40% of high tech workers
  - Important source of creativity and innovation

**SOURCE:** The President's Small Business Agenda



# Unique Challenges Facing SMEs when Implementing EHS Programs

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- Insufficient EHS technologies, expertise, training, capital
- Lack of initiatives tailored for SMEs
- Inadequate understanding of business case for EHS
- Need to deal with more pressing matters
- Price competition
- Limited consumer pressure

SOURCE: United Nations Environment Programme. 2003. *Big challenge for small business: sustainability and SMEs. Industry and Environment*, 26 (4), 52 pp.





# Preview of WWICS Report

**\*End of 2007: report will be available at [www.nanotechproject.org](http://www.nanotechproject.org)**

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- Speaks to data gaps uncovered through recent surveys (e.g., ICON)
- Addresses unique challenges of organizations with limited resources
- Leverages five core elements of NanoSafe
- Organizes information for creating proactive EHS management programs
- Links agency perspectives, landmark nanotech EHS publications, best practices, resources (e.g., NIOSH, DuPont/ED)
- Content is practical, adaptable to facility-specific needs



# NanoSafe Future

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- Continue driving nanotech EHS innovation
- Forge partnerships, address needs
- Deliver solutions to emerging Industry
  - NanoSafe, Inc.
  - Products, services for nanotech EHS
  - Outreach

