
NanoSafe™: A Practical Nanotechnology EHS Management Framework

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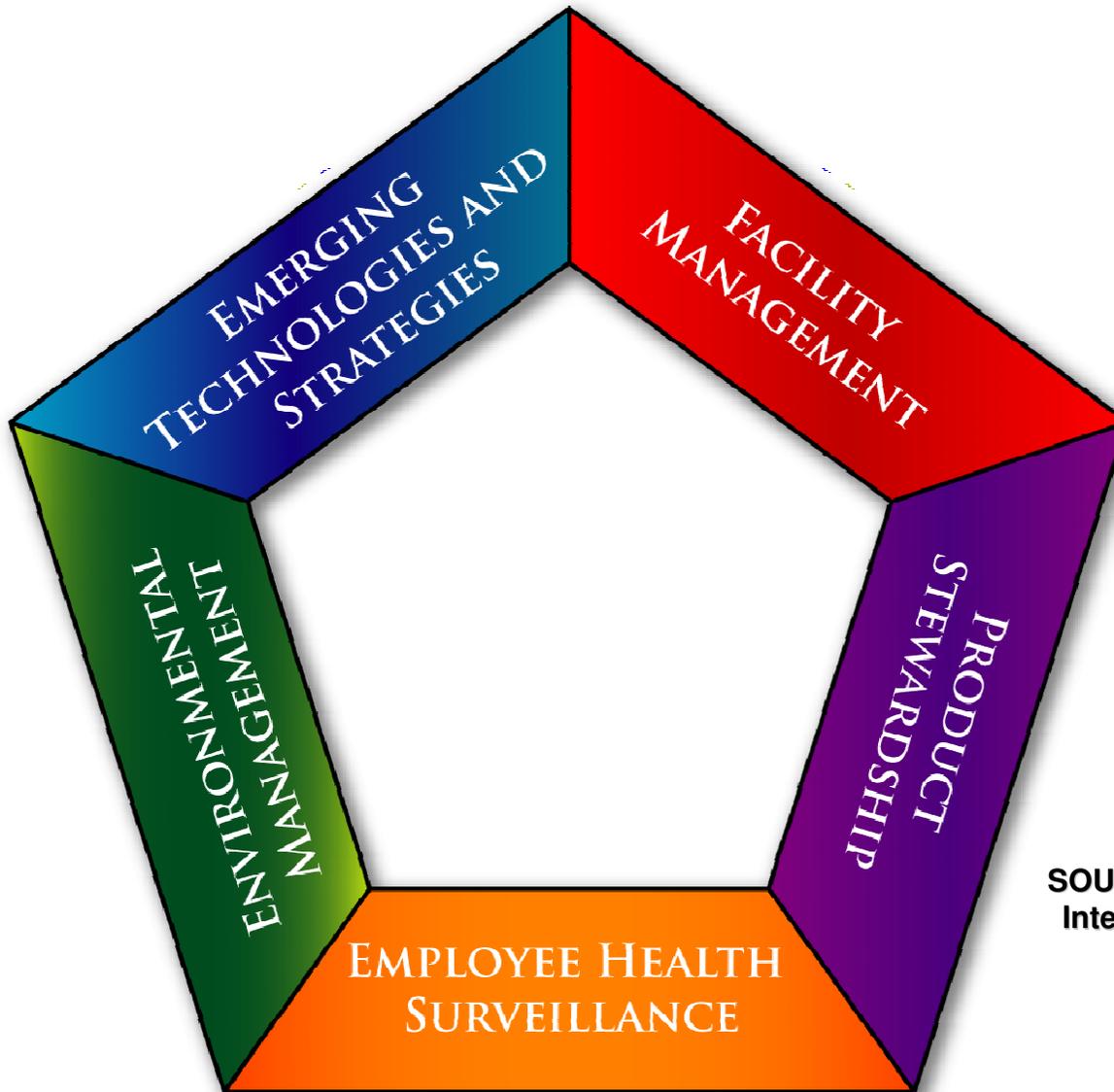
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A Brief Overview of NanoSafe

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



NanoSafe™



**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?

- 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)

- 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...

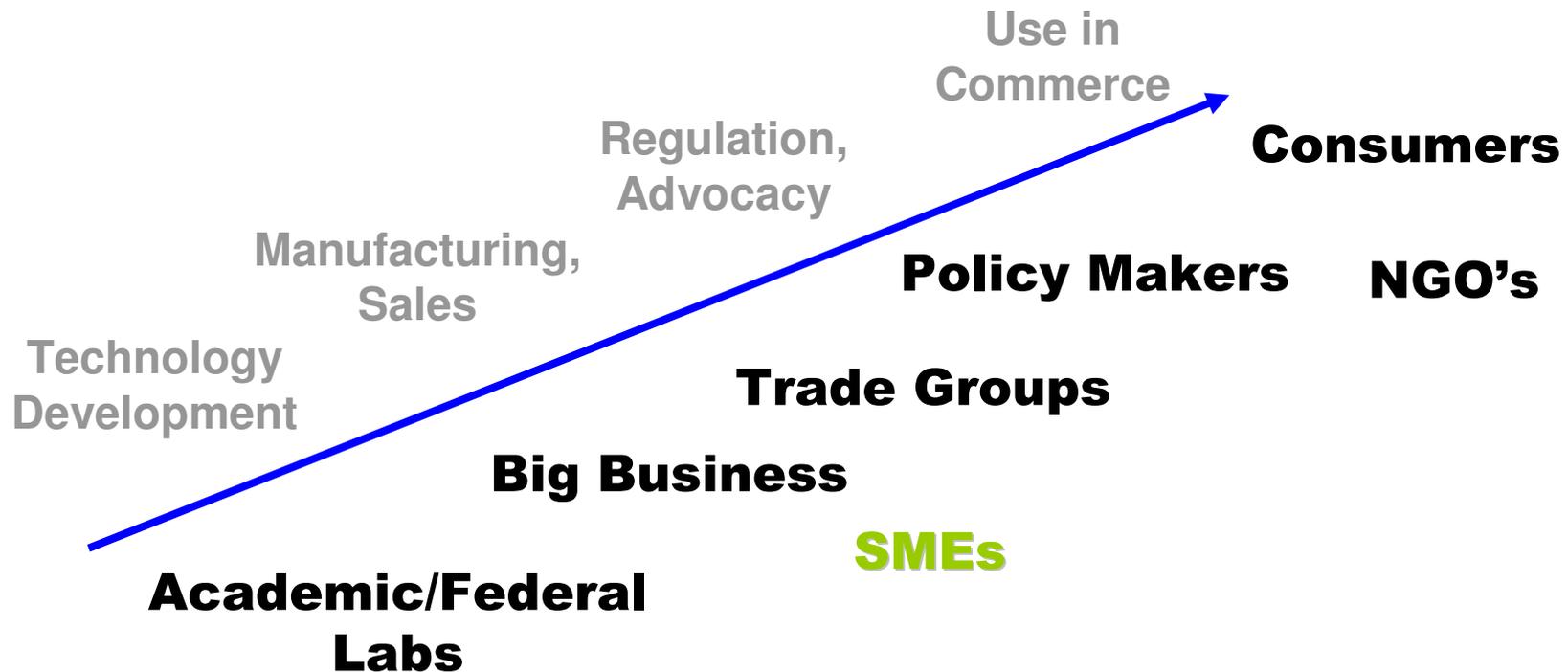
“Nanotechnology EHS and Small Business: Developing Practical Approaches to Risk Management”

**End of 2007: report will be available at www.nanotechproject.org*

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)

- 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

- 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

- 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

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

