

# NIOSH/AIHA Alliance

Working together to protect worker health

*Prevention through Design*

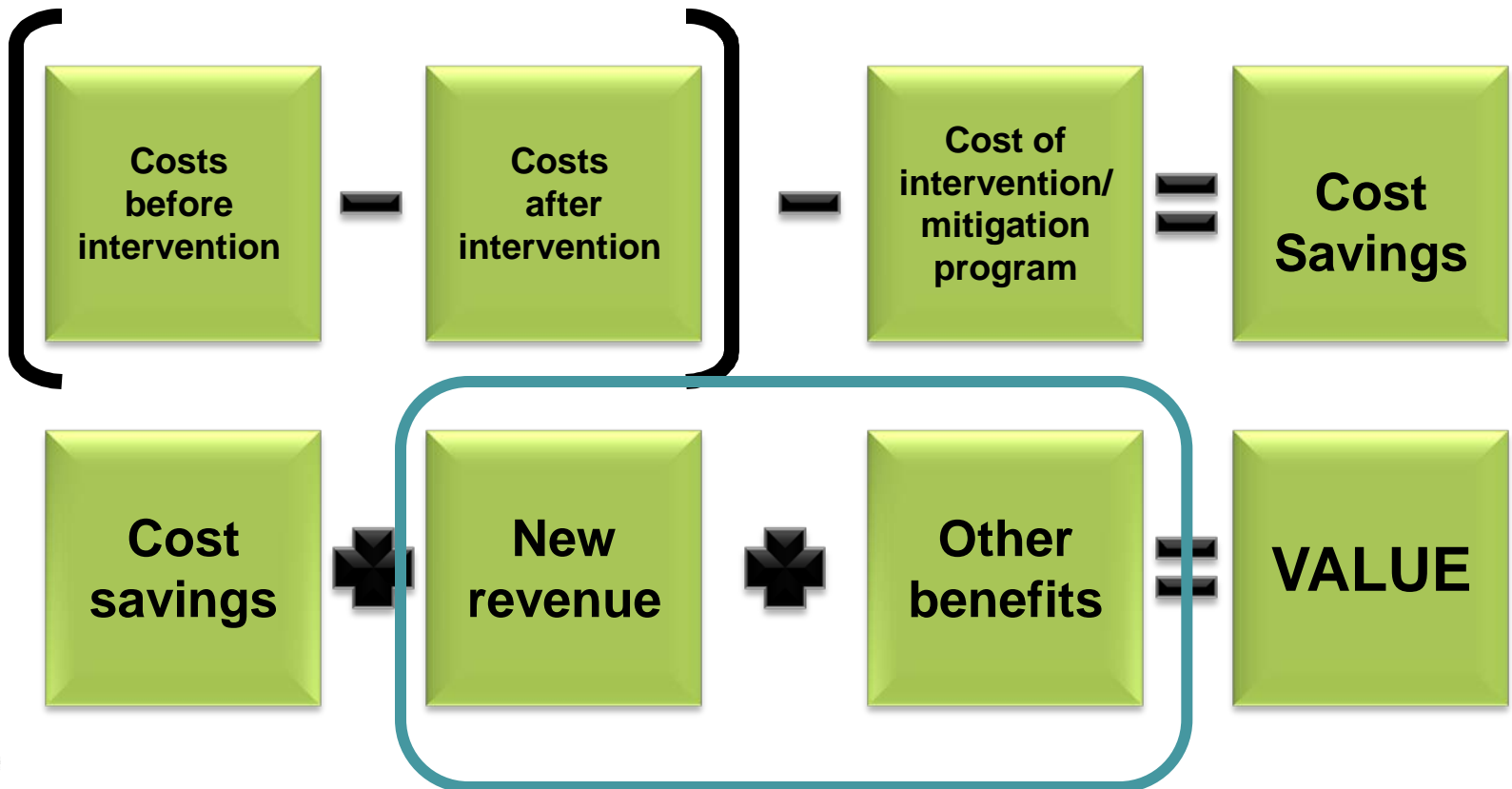
*Linking financial and non-financial business benefits  
for better protection of worker health*

# **AIHA VALUE STRATEGY**

# Background

- AIHA sponsored research to identify IH business value links
  - Goal: Illustrate the “business case” for IH programs and activities
- Initial results presented at 2008 AIHce in Minneapolis

# A Framework



# Key Findings

IH impacts on the **overall business process** were often the most significant



The most significant IH value contributions did not come from the traditional sources, such as:

- Lower worker compensation premiums
- Reduced fines and penalties
- Health-related costs



# Key Findings

The most cost-effective value contributions result from...

- Eliminating the hazard or implementing engineering controls...  
*...instead of using PPE or administrative controls even if the initial cost is higher*
- Proactively improving processes to prevent occupational illnesses...  
*...rather than retroactively reducing health-related costs or worker compensation premiums*

# Key Findings

The most significant value contributions result from...

- Anticipating worker exposures and designing process improvements to reduce or eliminate these exposures...

... resulting in significant contributions to business profitability

- IHs participating on business teams to solve problems...

*...that other professionals are not qualified to address*

# The AIHA Value Strategy

PRELIMINARY INVESTIGATION/PRIORITIZATION

**1** Identify Key Business Objectives and Hazards

**2** Conduct Risk Assessment

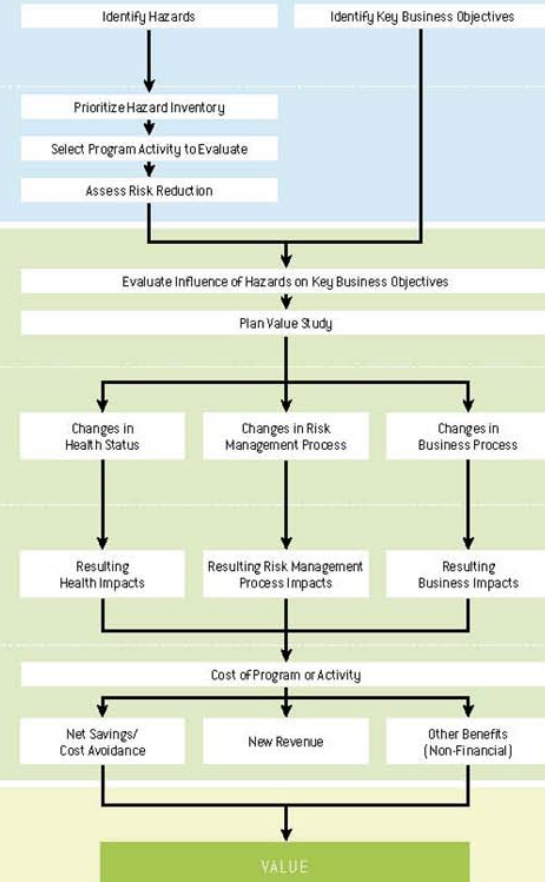
**3** Align Value Opportunities

**4** Identify Impacts

**5** Measure Impacts

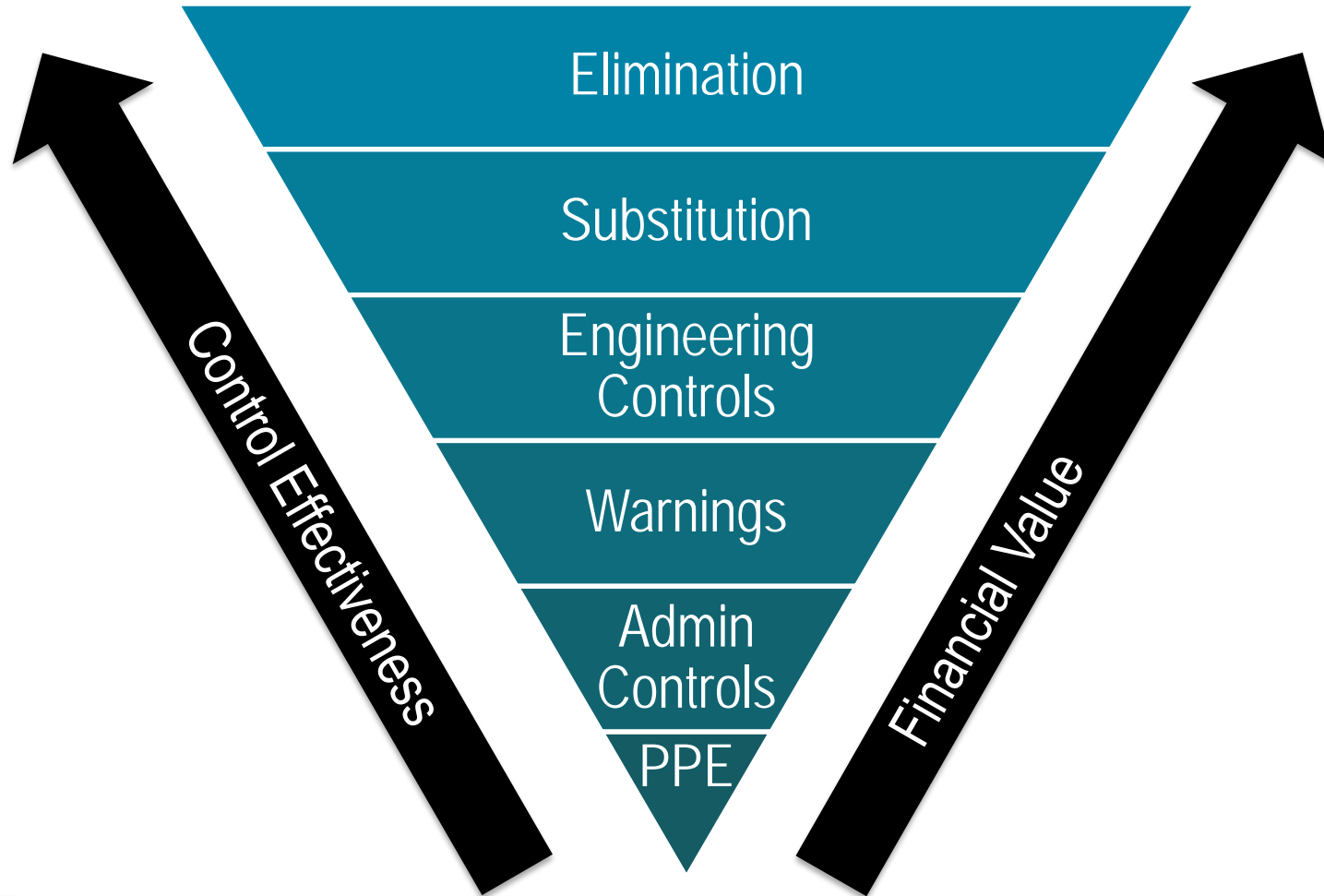
**6** Determine Value

**7** Value Proposition



REPORT/PRESENTATION

# Value Strategy Step 3: Identify alternatives



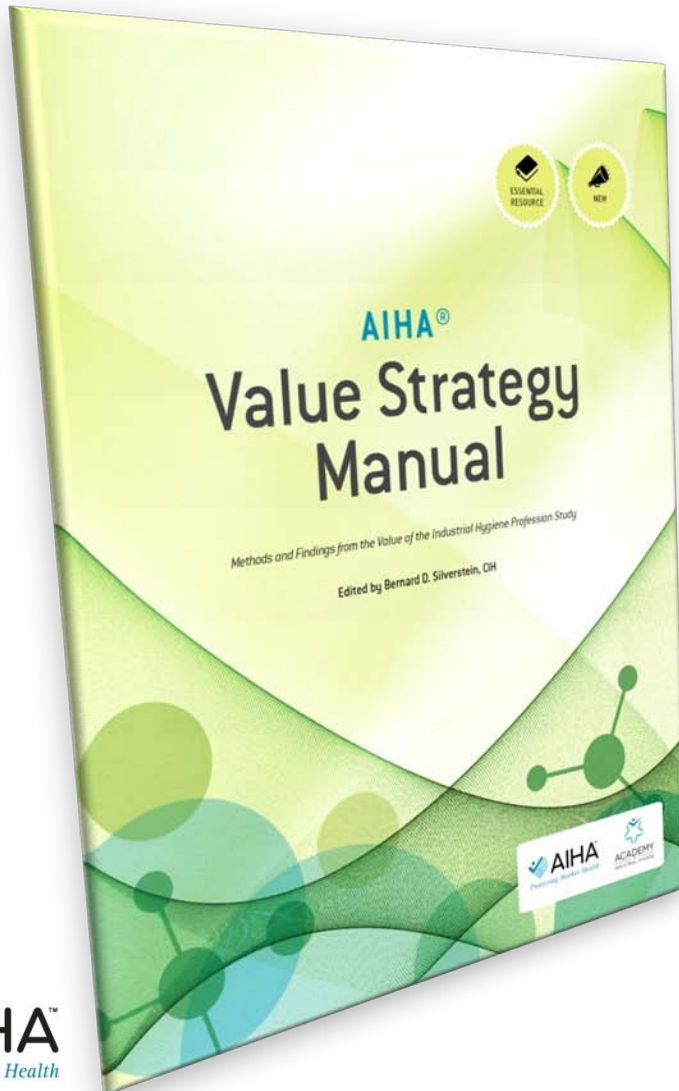
# Identify alternatives



a NIOSH national initiative



# Where we are today



- Value Strategy Manual published
- Continuing education courses available
  - Introductory
  - Advanced
- Electronic tools available
- Credential for practitioners in development

*Focusing exposure risk assessment and management  
for better protection of worker health*

# **HAZARD BANDING**

# What are we working to accomplish?

- Develop the framework to systematically evaluate the occupational hazards for chemicals without authoritative OELs (PELs, RELs, WEELs, TLVs, etc.) and communicate the hazards in terms of “health hazard bands”
- Focus on the development of eco-toxicology and physical hazard bands to assist the practitioner in a holistic evaluation of chemical hazards

# Health Hazard Banding

## *Working Definition*

The process through which the hazards of a material are collected, evaluated in terms of potential adverse effects from occupational exposure routes, and communicated in terms of health hazard band ranges.

# Background Scope of OELs

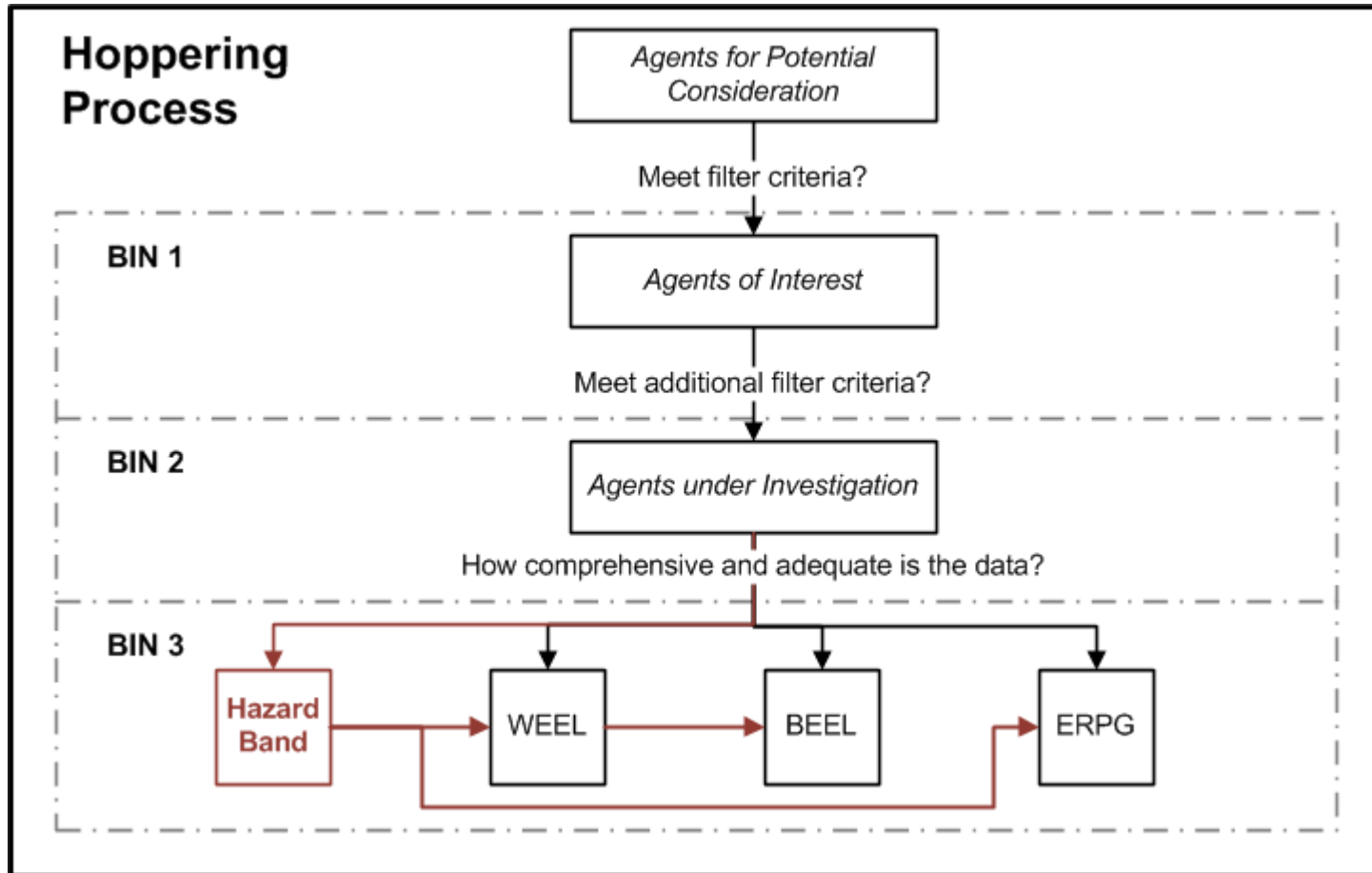
The OSHA Hazard Communication standard incorporating the Global Harmonization System estimated that there are 880,000 hazardous chemicals in current use

- OSHA currently regulates ~ 500 chemicals,
- NIOSH has ~650 RELs
- Worldwide there are ~1300 various OELs, including WEELs and TLVs

# Why health hazard bands?

- Facilitate the application of Prevention through Design to eliminate hazards and minimize risks to chemical agents
- Provide guidance for materials for which there are not yet sufficient data to develop an authoritative OEL
  - Hazard banding is now part of the WEEL development process

# Guide Value Development Process



# NIOSH-AIHA Alliance Projects

## *planned and in-progress*

- Technical guidance document providing...
  - Criteria to group chemicals into bands
  - Integration into H&S management systems
  - Overall process an organization may use to implement hazard banding, including the decision logic

*Drafted with development of an ANSI standard in mind*

- Ancillary document as an implementation guide
- Exploring options for a database of information needed for development of guide values and hazard bands

# NIOSH-AIHA Alliance Projects

## *planned and in-progress*

- Electronic tools to facilitate evaluating hazard data and assign chemicals without authoritative OELs into hazard bands
  - Including a health hazard band matrix such as the one that currently included in the AIHA guide value development process
- Education materials for H&S professionals, managers, and workers
  - Including continuing education and online community opportunities through AIHA