



# PERFORMANCE INDICATORS: Learning from other industries

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## Safety Pls: Theory & purpose

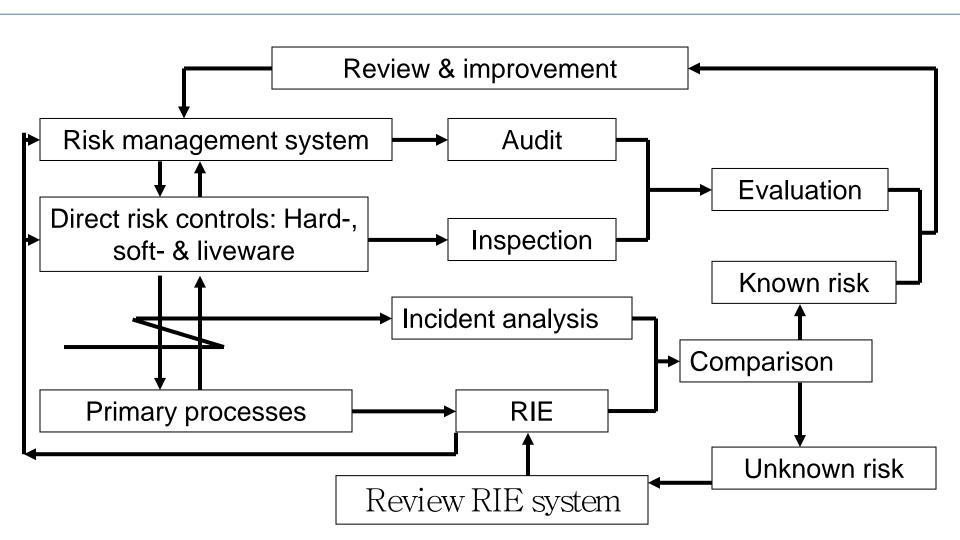
- Triggers for action dichotomous (yes/no), trends & action thresholds
- Guides to what action to take priorities for improvement causal links to risk picture & safety management system
- Motivation target setting behavioural safety links to incentives & remuneration packages
- What do they measure?
  - Input: effort, resources (financial, technological, human)
  - Process: control actions, safety management processes
  - Output: accidents, diseases, shutdowns
  - Personal vs. process vs. product (patient) safety





## Risk assessment & control







### A case study: steelworks maintenance

#### Relevance: Doctors are the maintenance engineers of the body

- 1000 employees on 3 shift system.
- Poor personal safety record (15-20 LTI/year)
- Threat of outsourcing based on poor process performance
- Charismatic manager determined to turn performance around, choosing safety as spearhead also to drive other production criteria & improve workforce-management collaboration
- Centrepiece: a dashboard of 9 KPIs for departmental managers measured on a 6 week cycle
  - The chosen KPIs & generation of targets
  - Introducing the dashboard & changes over time
  - Results. Over 6 years LTIs dropped to 0 & outsourcing was beaten off





#### **Chosen KPIs**

- Lost Time Injuries (LTIs) 1 day lost shift
- 2. Recordable injuries (first aid treatment & alternative work)
- 3. Reporting of incidents & dangerous situations
- 4. Taking action on investigation reports
- 5. Communication rounds (toolbox talks) including safety
- 6. Observation rounds for safe working with praise/debate
- 7. Risk assessments of work tasks with plan of action (also feeds 4)
- 8. Housekeeping inspections & results (5S)
- Safety plan kept up to date & acted upon

Targets set each year for each department under each heading



## Introduction process & changes

- Introduction all in one go overwhelmed the managers →
  phased introduction: Output criteria + 3/7 compulsory + 1 free
  choice, working up over time to full 9
- After 2 years dropped output KPIs too few accidents, not motivating
- Added KPI related to use of Permits-To-Work
- Raise targets as performance ran up against 100%
- Review after 4 years routinisation, 'window dressing', managing the indicator not the indicated – need for independent audit
- Introduce self-evaluation based on SMS criteria rating by management team & shop floor – action on difference



#### Issues for discussion. 1

- What should KPIs be about?
  - Personal process product safety
  - Leading vs. lagging; proactive vs. reactive; input process output
  - Are they for correcting things when they have gone wrong, or modifying them before that?
  - What about emergent risks?
- Managing the indicator & not the indicated culture, incentives, independent verification





## Issues for discussion. 2

#### What qualities should they have?

Measureable	Valid
Simple, clear, practical, limited	Reliable
Sensitive enough	Not open to falsification
Directly linked to objectives	Representative
Timely	Cost-effective
Influenceable	Deemed relevant by subjects
Based on success not failure	Motivating





## Further reading

Special issue of Safety Science on Process Safety Indicators: 2009 v47 (4)

 J. van Ginneken & AR Hale; From hanger-on to trendsetter: Decision making on a major safety initiative in a steel company maintenance department. Safety Science, v47 (6), 2009, p. 884 - 889.

