



**A global leader in process risk  
management services**

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# Leadership that drives Process Safety Excellence

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Group leader Europe



# Introduction Eline Beulens

- Group Leader, Europe at AcuTech
- Cargill ~ 11 yrs
  - Global, multi-business & technology PSRM Leadership
  - CCPS® Process Safety Professional Certification
  - Mentor – LEAD network
- European Process Safety Centre ~ 5 yrs
  - Board member
  - Chair of the Board
- DuPont ~17 yrs
  - Process engineering, Operations, Technology, Operational Excellence
- Chemical Engineer
  - MSc, University of Technology Eindhoven, NL



# Process Safety Management (PSM) Performance

Process Safety Management (PSM) is a “blend of engineering and management skills focused on preventing catastrophic accidents, particularly explosions, fire and toxic releases associated with the use of chemicals and petroleum products” (AIChE, CCPS, 2010)

The complexity of PSM makes for a difficult assignment to maintain excellence in PSM performance

It requires the entire organization to be aligned and motivated to continually improve PSM performance



*AI generated photo*

# Corporate Leadership Definition

- **Corporate leadership** is the system of behaviors and decisions by a corporation's top leadership (board, CEO, executive team, senior line leaders) that:
  - **Sets direction** (purpose, strategy, risk appetite, priorities).
  - **Aligns the organization** (structure, resources, incentives, capabilities).
  - **Mobilizes performance through leaders and culture** (values, norms, accountability).
  - **Governs and assures** (oversight, internal controls, stakeholder duties).
  - **Delivers results sustainably** (short-term performance without compromising long-term health).
- Corporate leaders are trained and rewarded to “**focus on enhancing shareholder value**”

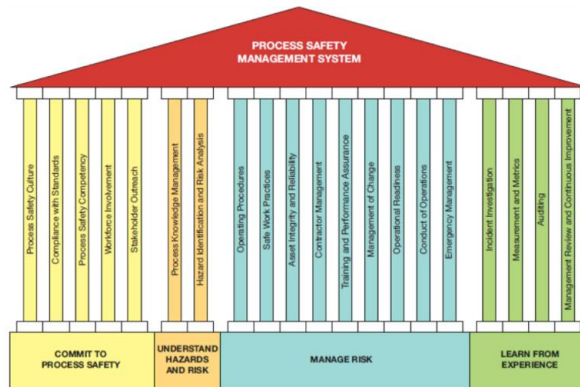
# Why PSM Leadership Is Different

- Focusing on preventing and managing catastrophic incidents, while enabling sustainable value
- Major risks are low-probability / high-consequence / systemic
- Success means events never happen - prevention is less obvious:
- Requires chronic unease, rigor, and deference to expertise
- Shared Accountability - Line leadership owns PS performance

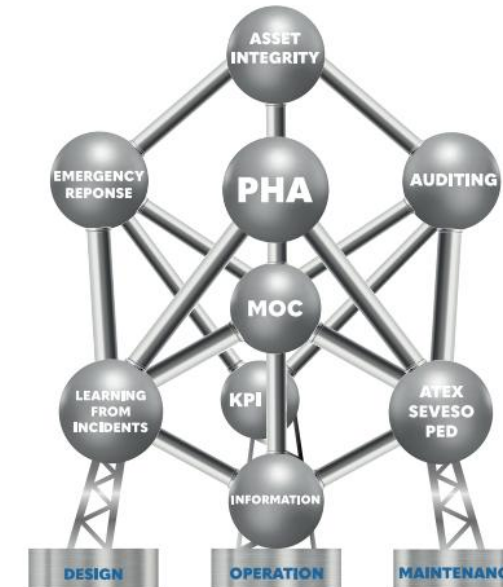


# Leadership that drives Process Safety Excellence

Strong Leadership drives Strong Culture, drives Strong Performance



*Visualization of the 20 elements for Process Safety Management by CCPS®*

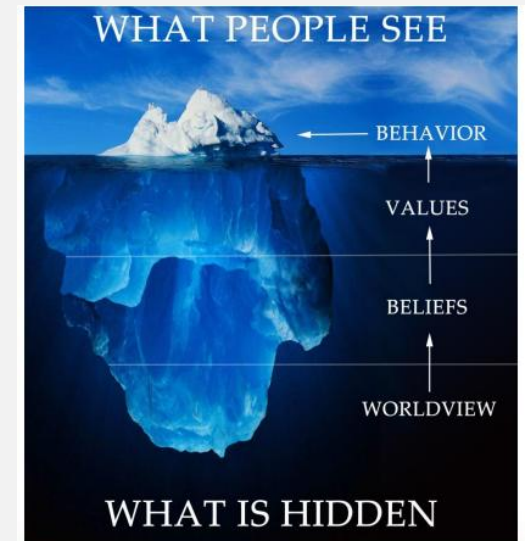
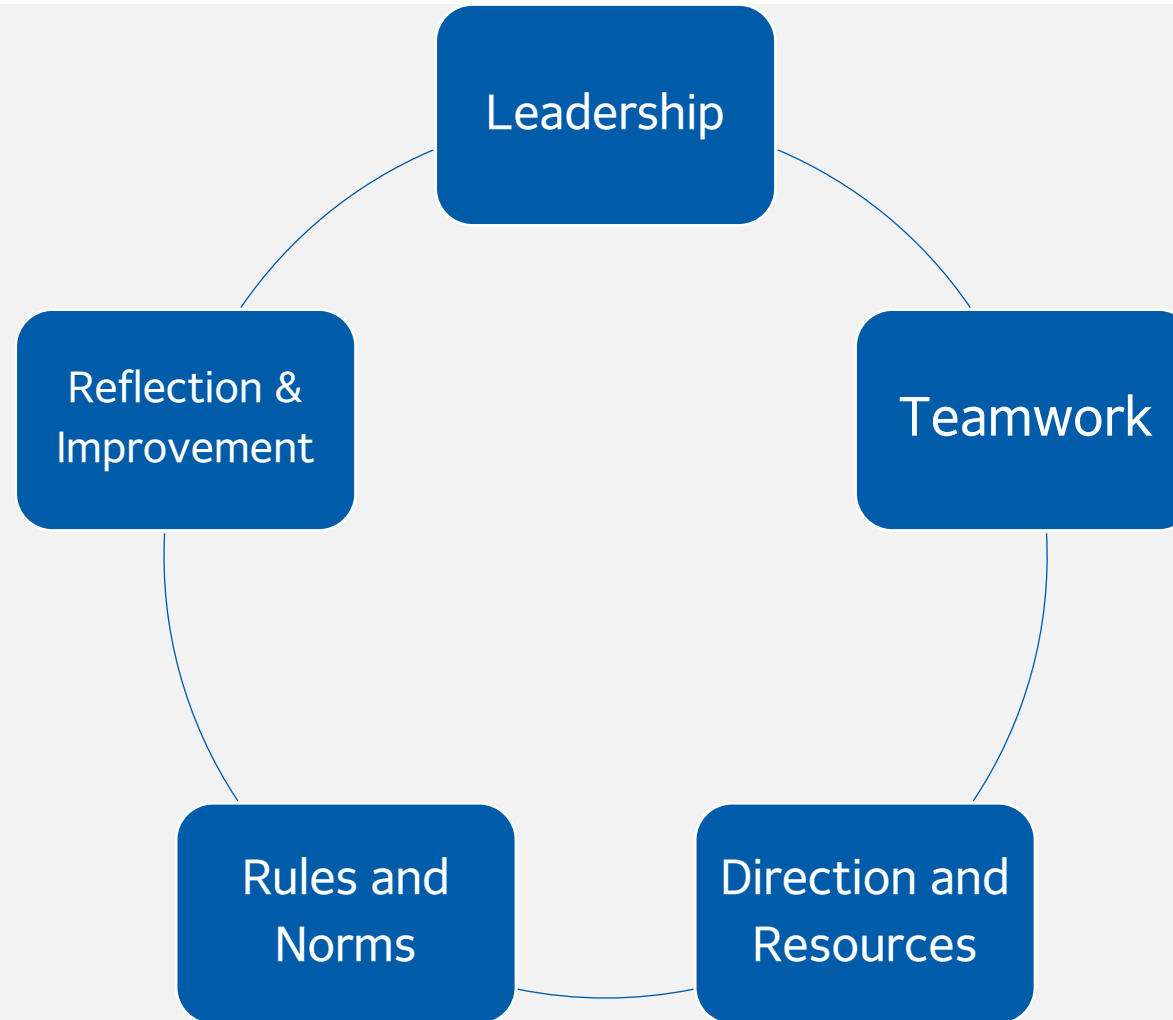


*Visualization of the European Practice for Process Safety management by EPSC*



# Five Building Blocks to Great Culture

Establishing a sound process safety culture is more related to “**winning hearts and minds**” than the actions defined for other PSM elements, which generally involve more technical and concrete actions.





# PSM Leadership Best-Practice Principles

- Boardroom-to-Frontline ownership of major-hazard risk
- Visible commitment and clear risk appetite
- Relentless focus on barrier health and operating discipline
- Learning culture: surface weak signals early, fix system causes



# What Senior Line Leaders Do

- Declare process safety a strategic value; set risk appetite
- Put ownership in the line; align incentives
- Fund critical barriers first; avoid deferrals
- Review barrier health trends and red-barrier recovery plans
- Build competence for critical tasks



# Leadership's Influence on Process Safety Performance

## 1. Setting the tone: what “matters most”

- Leaders signal what the organization truly values.
- Concrete leadership behaviors that strengthen process safety:
  - Repeating that “no target is worth a major incident.”
  - Asking about barrier health and risk, not just output metrics.
  - Treating process safety as a core business objective, not a compliance add-on.
  - When leaders treat process safety as *non-negotiable*, employees feel permission to slow down, stop work, or escalate concerns.





# Leadership's Influence on Process Safety Performance

## 2. Building (or eroding) a process safety culture

Culture is the “default behavior” of the organization.

Leadership shapes culture by:

- What they pay attention to
- How they react to bad news
- What gets rewarded
- A strong process safety culture is usually characterized by:
  - open reporting and learn from near miss
  - healthy questioning/“chronic unease,”
  - respect for procedures,
  - and shared ownership of risk.



# Leadership's Influence on Process Safety Performance

## 3. Providing resources and competent staffing

- Process safety requires time, equipment, and skilled people. Leaders influence:
  - staffing levels and fatigue risk,
  - maintenance budgets,
  - training quality,
  - engineering support,
  - and modernization of aging assets.
- Under-resourcing safety-critical work is one of the most common paths toward major accidents.
- Leaders decide whether backlogs shrink or grow.



# Leadership's Influence on Process Safety Performance

## 4. Governance and accountability

- Leaders define who is responsible for what, and how seriously responsibilities are taken.
- Good leadership governance includes:
  - clear process safety roles from frontline to executives,
  - visible ownership of safety-critical barriers,
  - routine audits and assurance,
  - and follow-through on corrective actions.
- Weak governance looks like:
  - unclear decision rights,
  - chronic overdue actions,
  - audits that become “paper exercises,”
  - or tolerance of repeat deviations.





# Leadership's Influence on Process Safety Performance

## 5. Decision-making under tradeoffs

- High-risk industries constantly face tradeoffs (uptime vs. repair, cost vs. redundancy, speed vs. procedure). **Leaders influence process safety by *how they handle these moments*.**
- Strong leaders:
  - insist on risk assessments before deviating,
  - ask “what barrier are we weakening?”
  - and accept short-term pain to avoid catastrophic loss.
- Poor leadership normalizes drift: small exceptions pile up until an accident becomes “surprising but inevitable.”

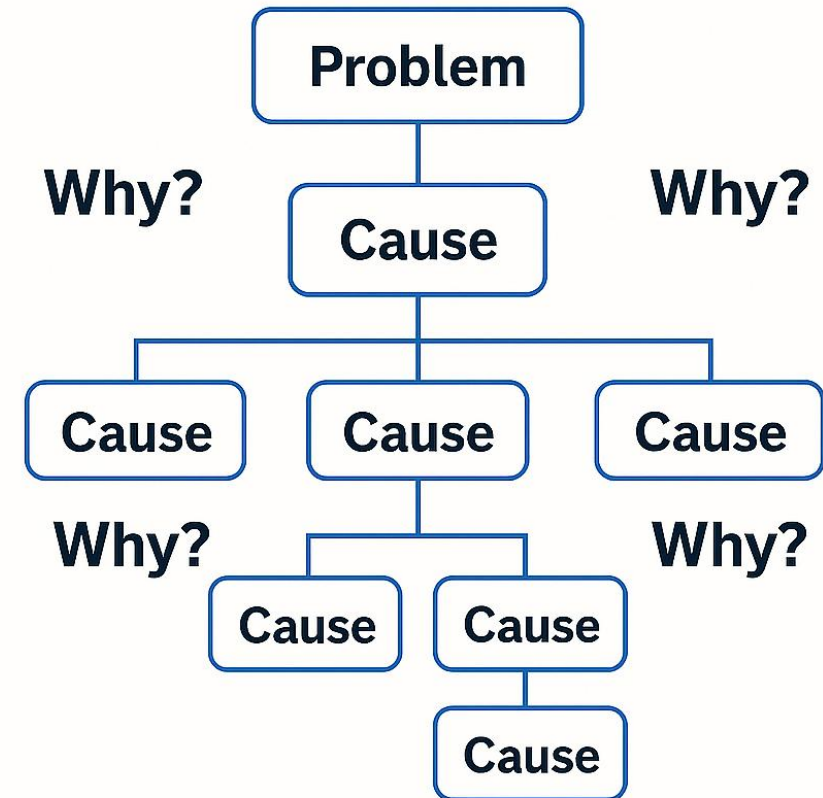


# Leadership's Influence on Process Safety Performance

## 6. Learning, curiosity, and continuous improvement

- Organizations with great process safety *learn faster than risk accumulates*.
- Leaders accelerate learning by:
  - encouraging near-miss reporting and investigating root causes,
  - funding corrective actions, not just identifying them,
  - sharing lessons broadly,
  - and checking whether changes actually work.
- Leaders who treat incidents as opportunities to improve (not to scapegoat) create resilient systems.

## Root Cause Analysis





# Leadership's Influence on Process Safety Performance

## 7. Visibility and presence in the field

- Leadership presence doesn't mean policing; it means understanding real work.
- Effective field engagement includes:
  - asking operators what makes the job hard,
  - noticing mismatches between procedure and reality,
  - observing barrier conditions firsthand,
  - and removing obstacles that force unsafe workarounds.
- When leaders are visible and curious, they close the gap between “work as imagined” and “work as done.”





# Leadership's Influence on Process Safety Performance

## 8. Leading vs. lagging indicators

- Leaders choose what gets measured and reviewed. If they only track lagging indicators (injuries, incidents), they're always reacting too late.
- Good process safety leadership emphasizes leading indicators like:
  - safety-critical maintenance backlog,
  - test/inspection compliance,
  - alarm management health,
  - MOC quality and timeliness,
  - number and quality of hazard reports,
  - operator training and competency checks.
- Attention on prevention, not just outcomes.



# Leadership's Influence on Process Safety Performance

## Bottom line

- Leadership influences process safety through **priority-setting, culture, resourcing, governance, tradeoff decisions, learning systems, field engagement, and metrics.**
- The most safety-successful organizations are almost always the ones where leaders consistently, visibly demonstrate—through actions, not slogans—that preventing catastrophic events is a core value and daily operational discipline.

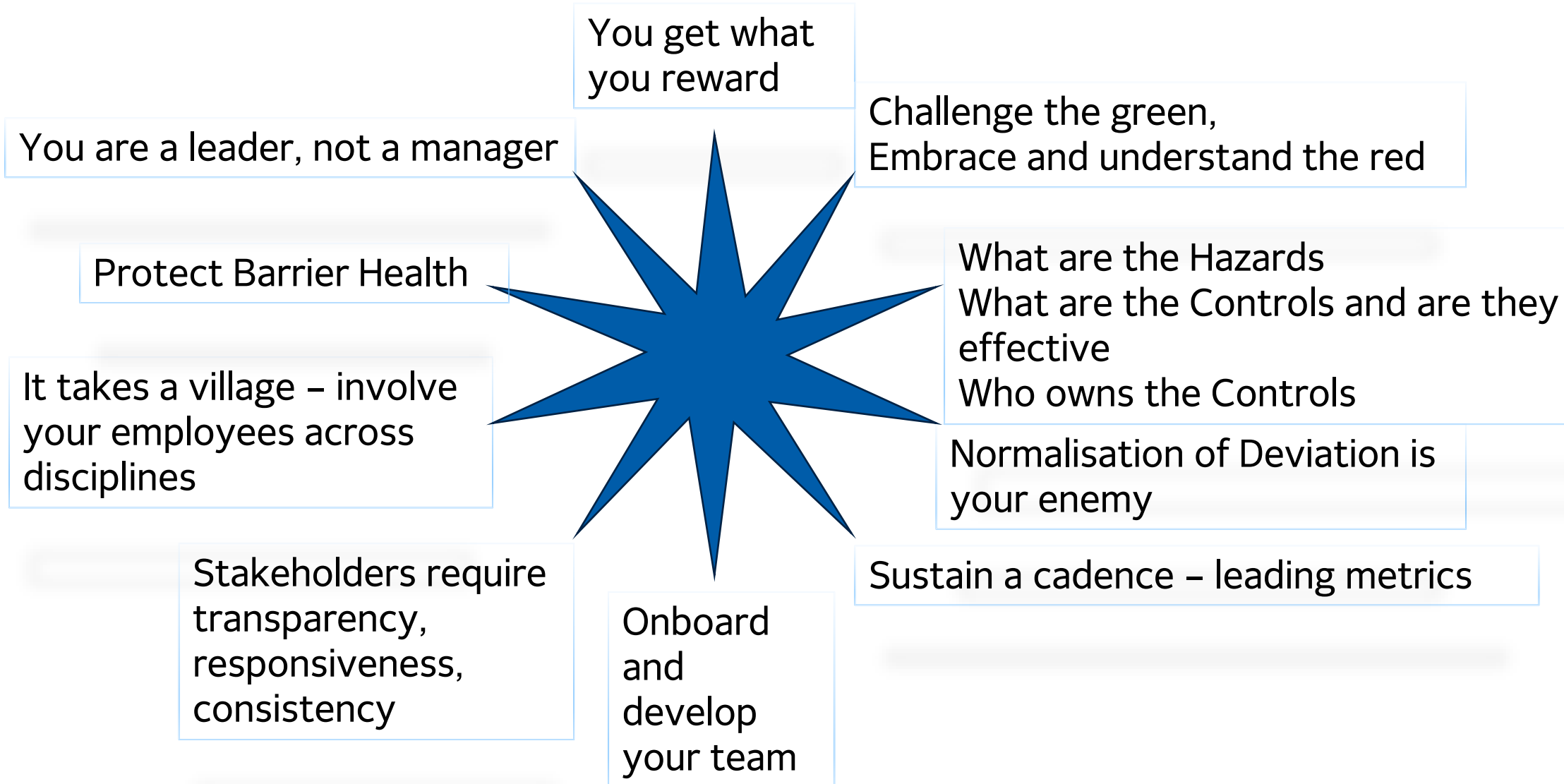
# What Corporate PSM Managers Do

- Maintain integrated management system standards
- Provide visibility on Major Accident Risk profile and Barriere health in business terms
- Coach leaders on behaviours
- Own leading-indicator system & early warnings
- Provide independent assurance and escalation
- Support actionable PS cadence





# 10 point Leader's Cheat sheet



# Model of Excellence for PSM

- Set direction: purpose, risk appetite, non-negotiables
- Build integrated PSM/Safety Management Systems with PDCA improvement
- Lead culture through intentional behaviours and consequences
- Learn from weak signals, near misses, and events
- Assure barriers via leading indicators & audits







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