

Process Safety Case Studies

THE BEST + WORST IN PROCESS SAFETY CULTURE MOMENTS

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Meet Our Case Studies

GCMC

- + Global
- + Flammables
- + Segmented global EHS organizations

ICCC

- + Global
- + Toxics & Flammables
- + Unified global EHS organization

4 CASES

TCI

- + Global
- + Toxics, Reactives, Flammables
- + Lean approach to regulatory compliance

UAM

- + Older facility, first adopter of PSM
- + Lost dedicated PSM coordinator: gaps discovered



Case Study #1 – GCMC

Global Chemical Manufacturing Company (GCMC)

Approach

Global Standard Development

- + LPG
- + Aerosol Manufacturing
- + PHAs for Aerosol operations
- + Others (LOTO, Contractor Management, SWP, etc.)

Global Auditing

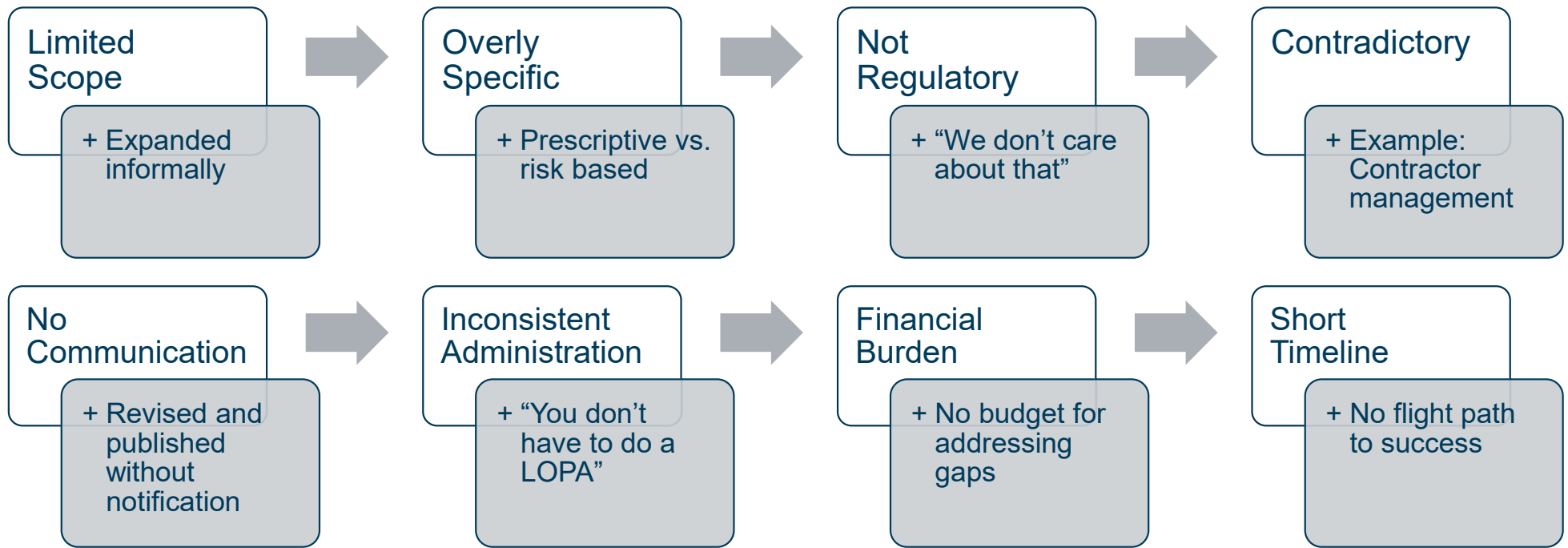
- + 3rd party audits to global standards
- + No regulatory review
- + Implications for future approach

Along the Way...

- + No MoCs
- + No input from individual facilities
- + Quick roll-out
- + When facilities raised concerns, they were ignored

Global Chemical Manufacturing Company (GCMC)

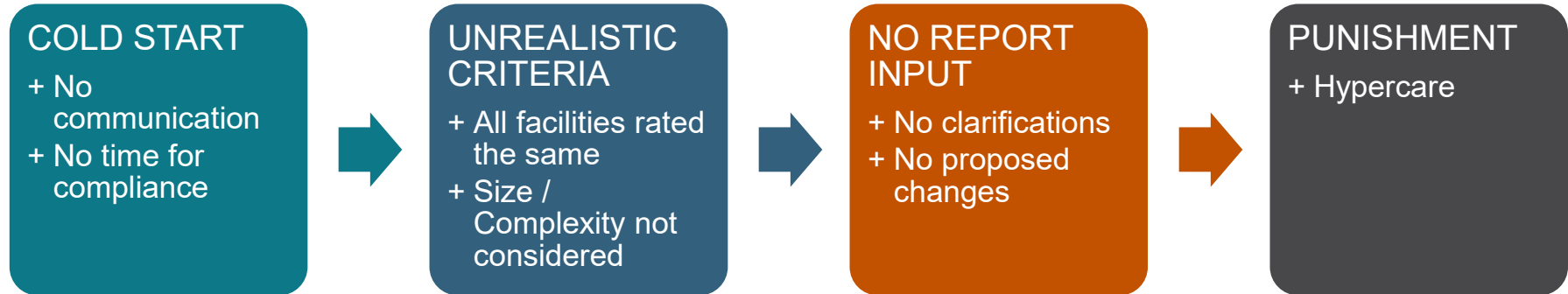
Approach – Standard Issues Identified



MoC hypocrisy

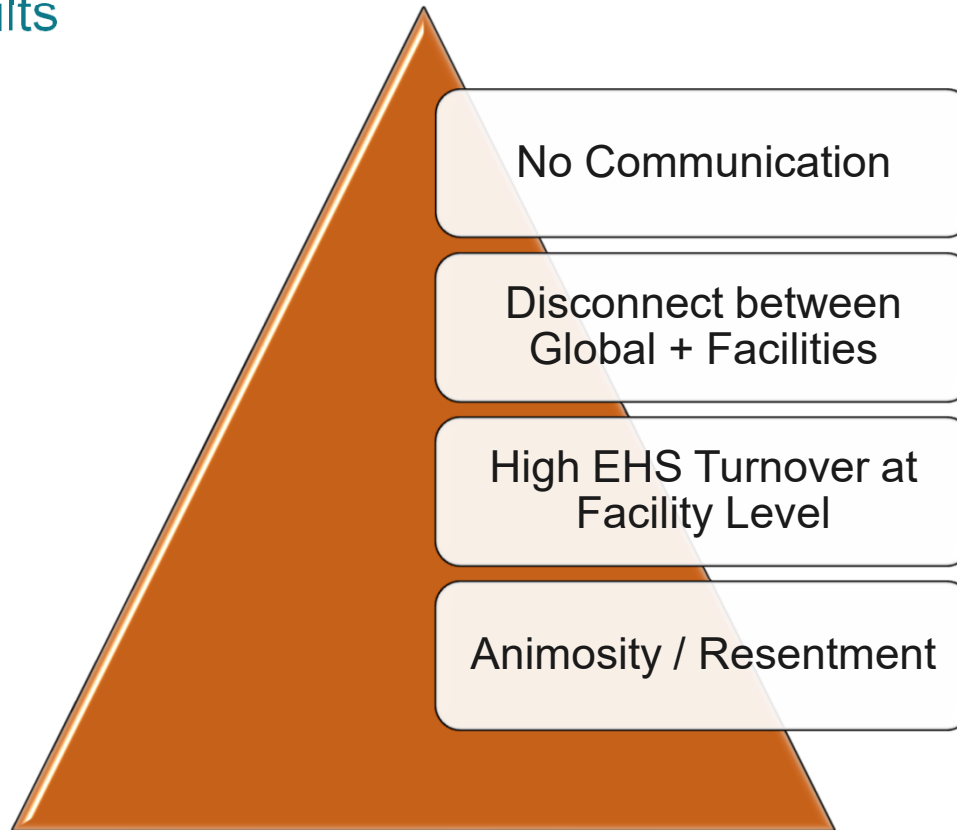
Global Chemical Manufacturing Company (GCMC)

Approach – Auditing Issues Identified



Global Chemical Manufacturing Company (GCMC)

Approach – Results

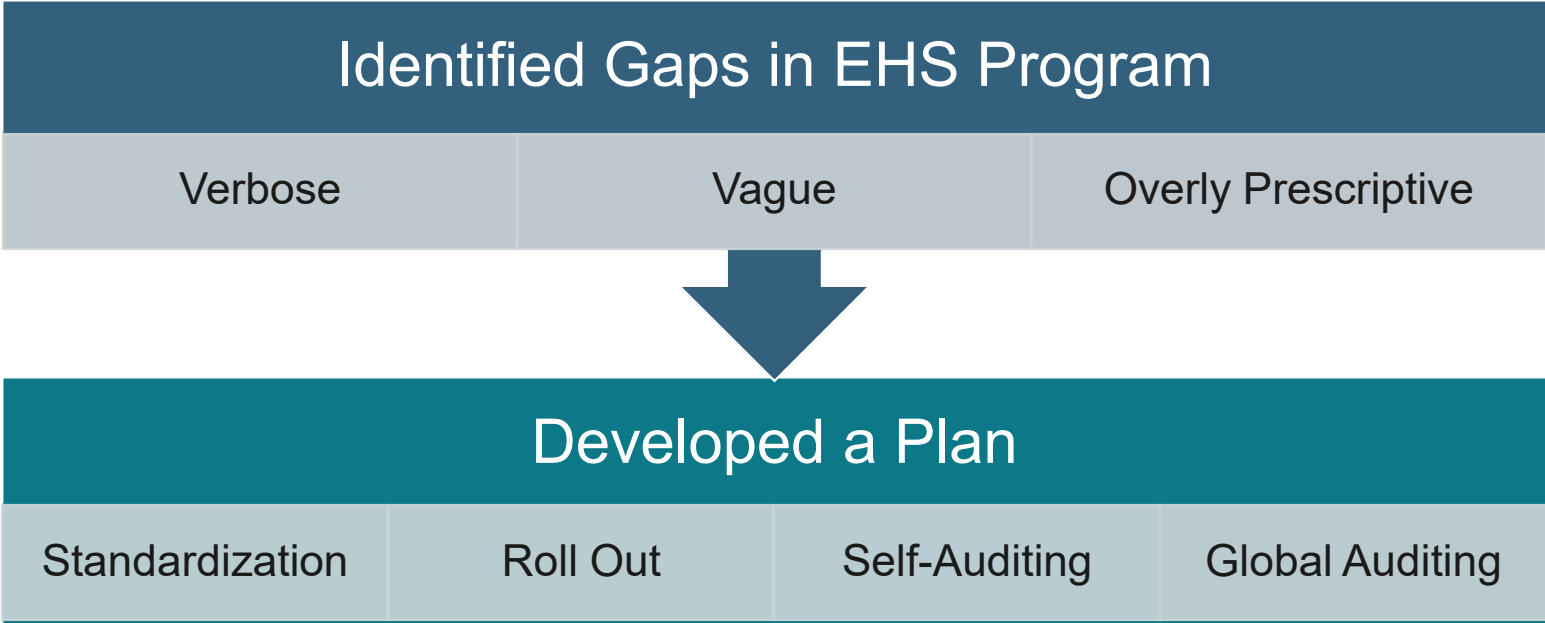




Case Study #2 – ICCC

International Consumer Chemical Company (ICCC)

Background



International Consumer Chemical Company (ICCC)

Standard Development Approach

One Standard per
Safety Topic

No “Fluff”

Each Sentence
contains Clear
Criteria

Spreadsheet (not
Word document)

Entire Standard
Auditable

Can be used as a
Self-Auditing Tool

Based on
International
Regulations +
RAGAGEPs

International Consumer Chemical Company (ICCC)

Standard Development Examples



Every facility must document an assessment to determine if the facility is subject to this standard.



The facility must have a chemical inventory that includes the name, the quantity, and location of each chemical.



The facility must maintain copies of each PHA report for the life of the process.

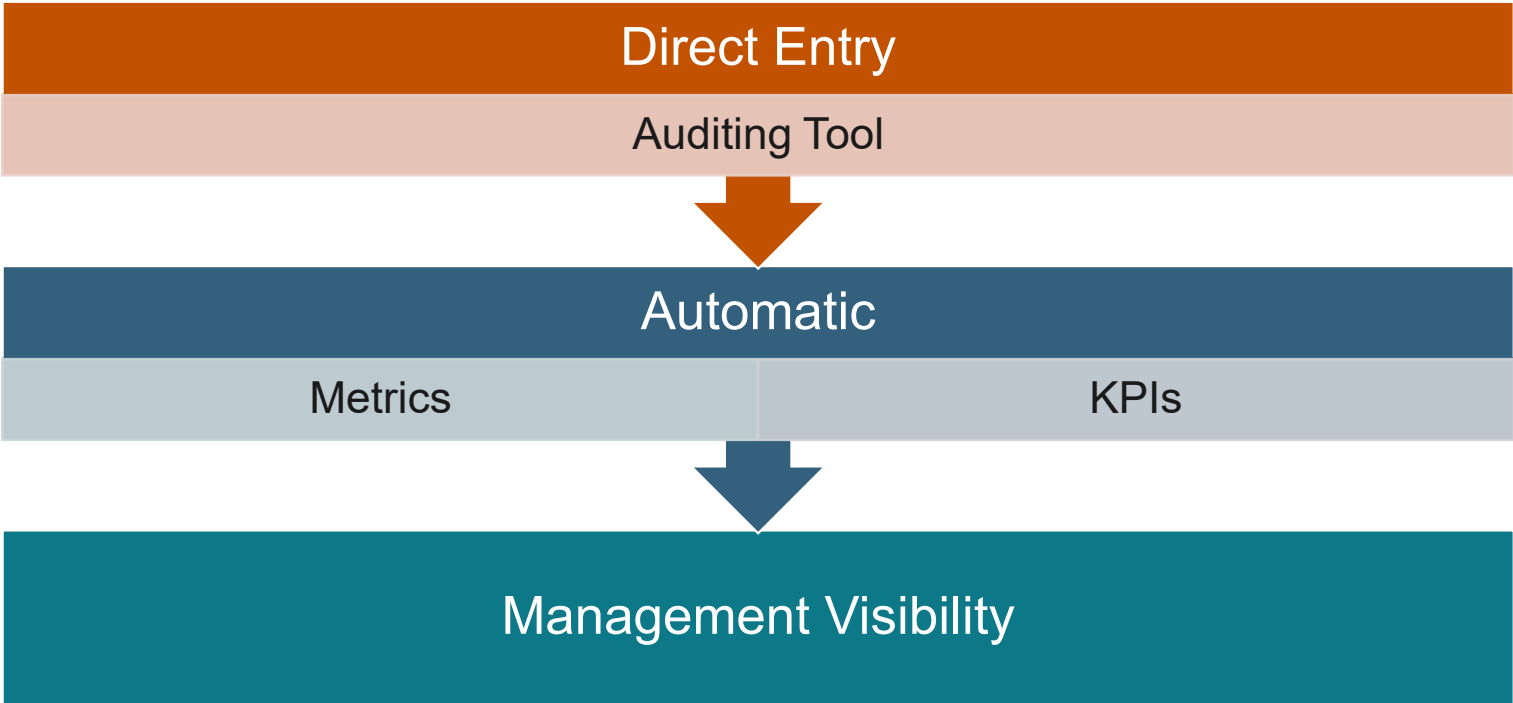
International Consumer Chemical Company (ICCC)

Plan



International Consumer Chemical Company (ICCC)

Audit Implementation



International Consumer Chemical Company (ICCC)

Approach – Results





Case Study #3 – TCI

TransWorld Chemical Industries (TCI)

Background

- + No global process safety program
- + Limited EHS practitioners
- + Metrics focused on production
- + Historical regulatory compliance issues

Principles

Individual Freedom

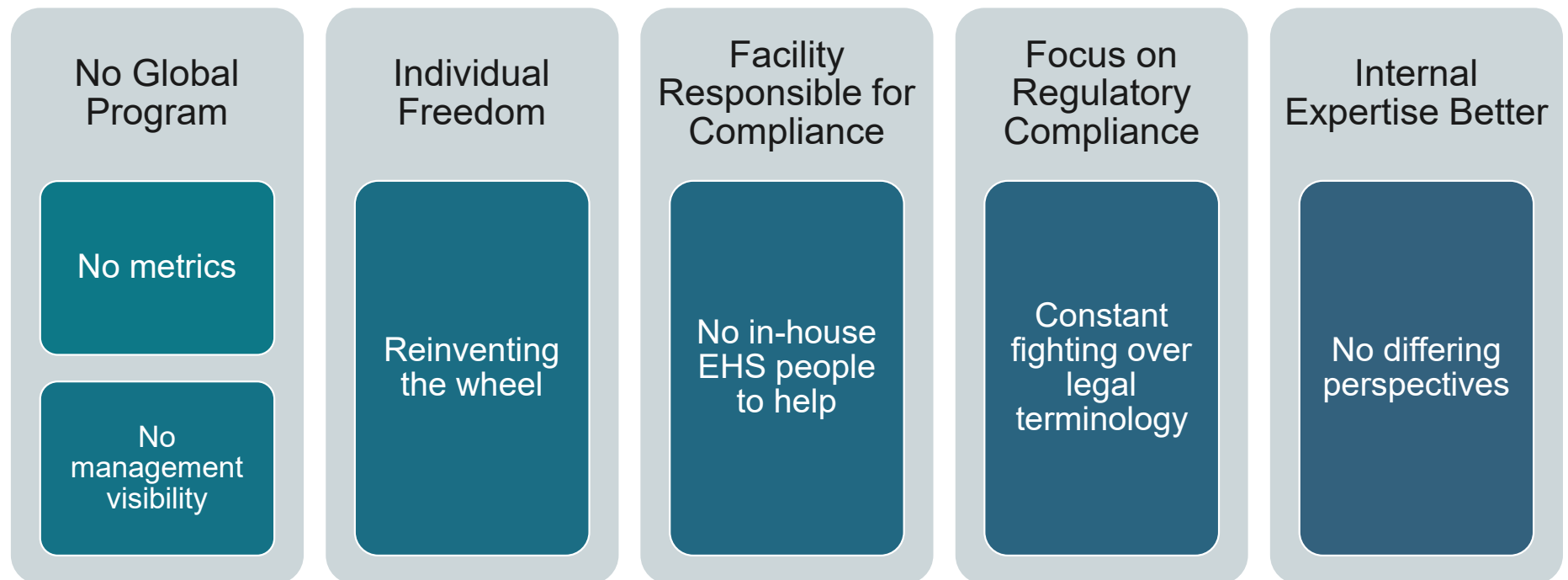
Facility
Responsible for
Regulatory
Compliance

Focus on
Regulatory
Compliance Only

Internal Expertise
Better

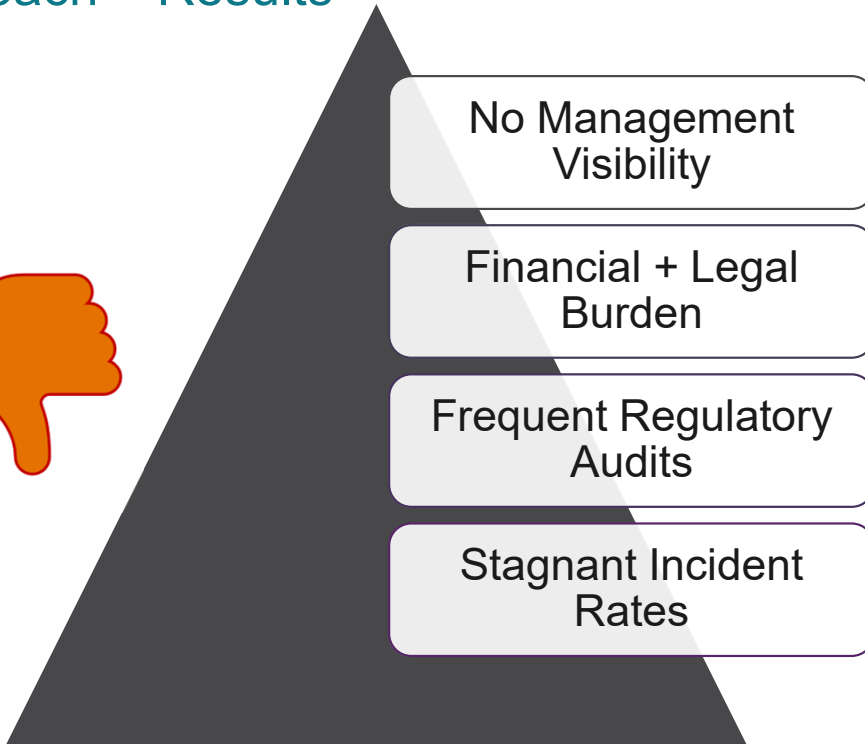
TransWorld Chemical Industries (TCI)

Issues



TransWorld Chemical Industries (TCI)

Approach – Results



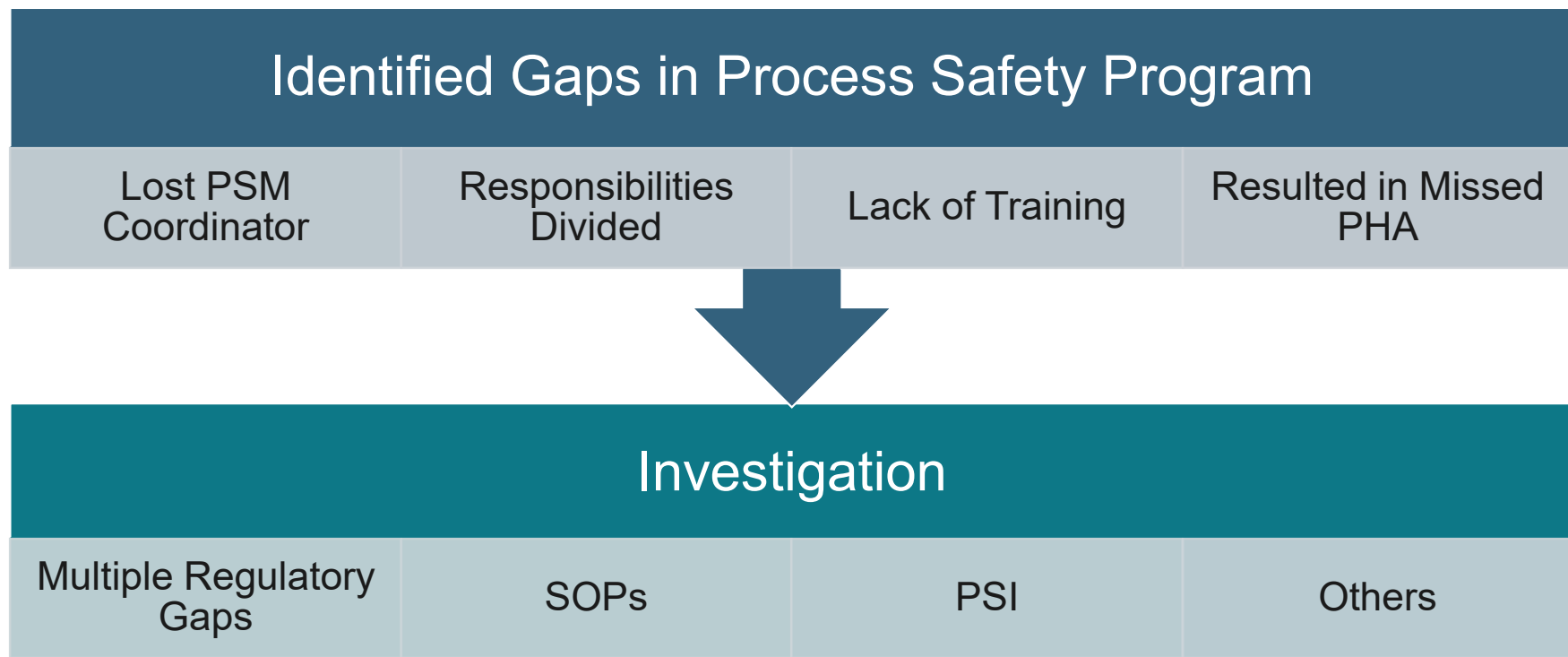
Management recognized the gap, and hired global process safety personnel



Case Study #4 – UAM

Universal Advanced Materials Group (UAM)

Background



Universal Advanced Materials Group (UAM)

PSM Improvement Approach

Dedicated PSM
Person

Increased Employee
Participation

Organized PSI

Sustainable
PSM Initiatives

Management
Visibility

Universal Advanced Materials Group (UAM)

PSM Improvement Details

Employee Participation	Organized PSI	Sustainable PSM Initiatives	Management Visibility
<ul style="list-style-type: none">+ P&ID review+ SOP review+ PHAs+ Compliance audits+ Incident investigations+ Contractor management	<ul style="list-style-type: none">+ SharePoint+ Library	<ul style="list-style-type: none">+ MoC+ PSSR+ MI+ LMS+ Contractor management	<ul style="list-style-type: none">+ PSM health check (monthly)+ PSM awards (annual)

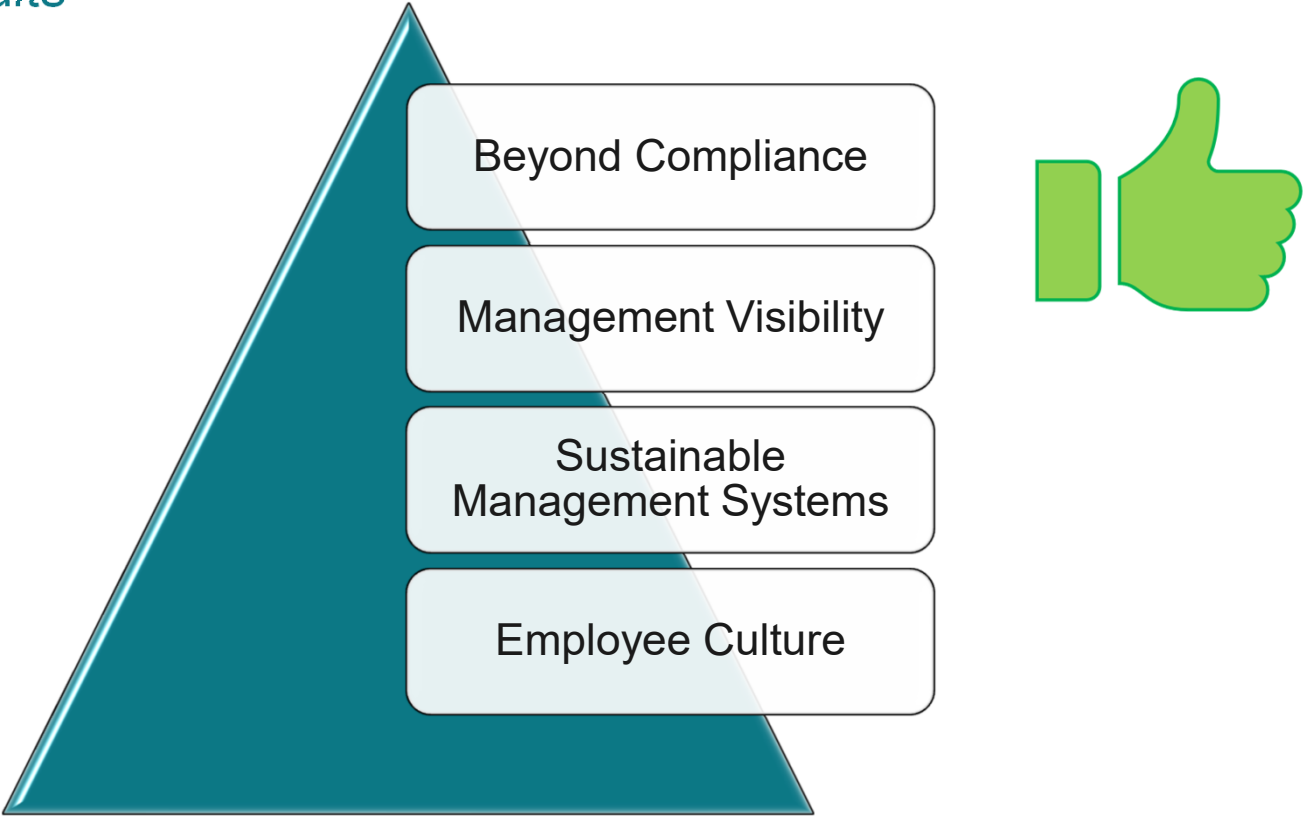
Universal Advanced Materials Group (UAM)

Challenges

Management Systems	+ Growth paradigm vs. blame game
Global vs. Local	+ Discontinuity + One-way communication
Tool Automation	+ Tracking / updating + Human compliance
Shifting Priorities	+ Production / Quality / Safety
Turnover	+ All levels + Training + Ramp-up time
Resistance to Change	+ That's not the way we've always done it + My way or the highway

Universal Advanced Materials Group (UAM)

Approach – Results



Conclusion

Implications

Global
Leadership

Open
Communication

Global
Standards

MoC

Questions?



Thank You

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