



Wilson Perumal
& Company

A Strategy consulting
firm with unique depth
in operations



Aligning Behaviors for Incident Free Operations

LatAm HSSE in Energy Conference

December 4, 2014

The World Has Changed: New Approaches To Safety and Reliability Are Needed

Situation

- The world is becoming much more complex
 - Technology, organizations, processes, regulations, etc.
- Expectations for Operational Excellence have never been higher

Complication

- After decades of system-based improvement and quality initiatives, the level of failures remains too high
- Traditional approaches to safety and risk management are being stretched to their limit

Opportunity

- In the face of complexity, a few organizations have evolved new methods and approaches for achieving safety and reliability based on core behaviors
- Other organizations can and should take advantage of these best practices

Highly-Regarded Organizations Struggle To Manage Complexity And Risk

Examples:

1979 – Three-Mile Island core meltdown

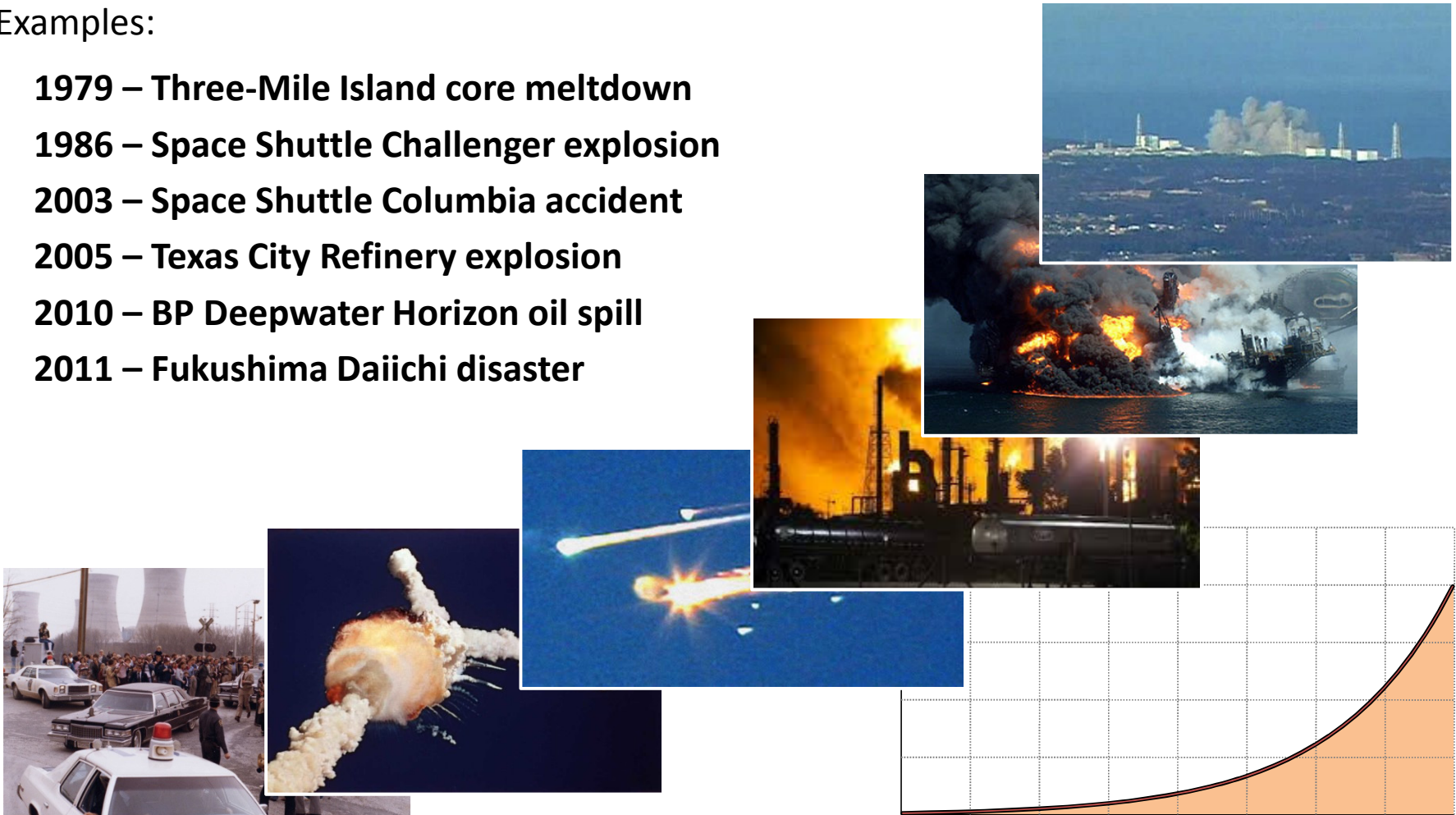
1986 – Space Shuttle Challenger explosion

2003 – Space Shuttle Columbia accident

2005 – Texas City Refinery explosion

2010 – BP Deepwater Horizon oil spill

2011 – Fukushima Daiichi disaster

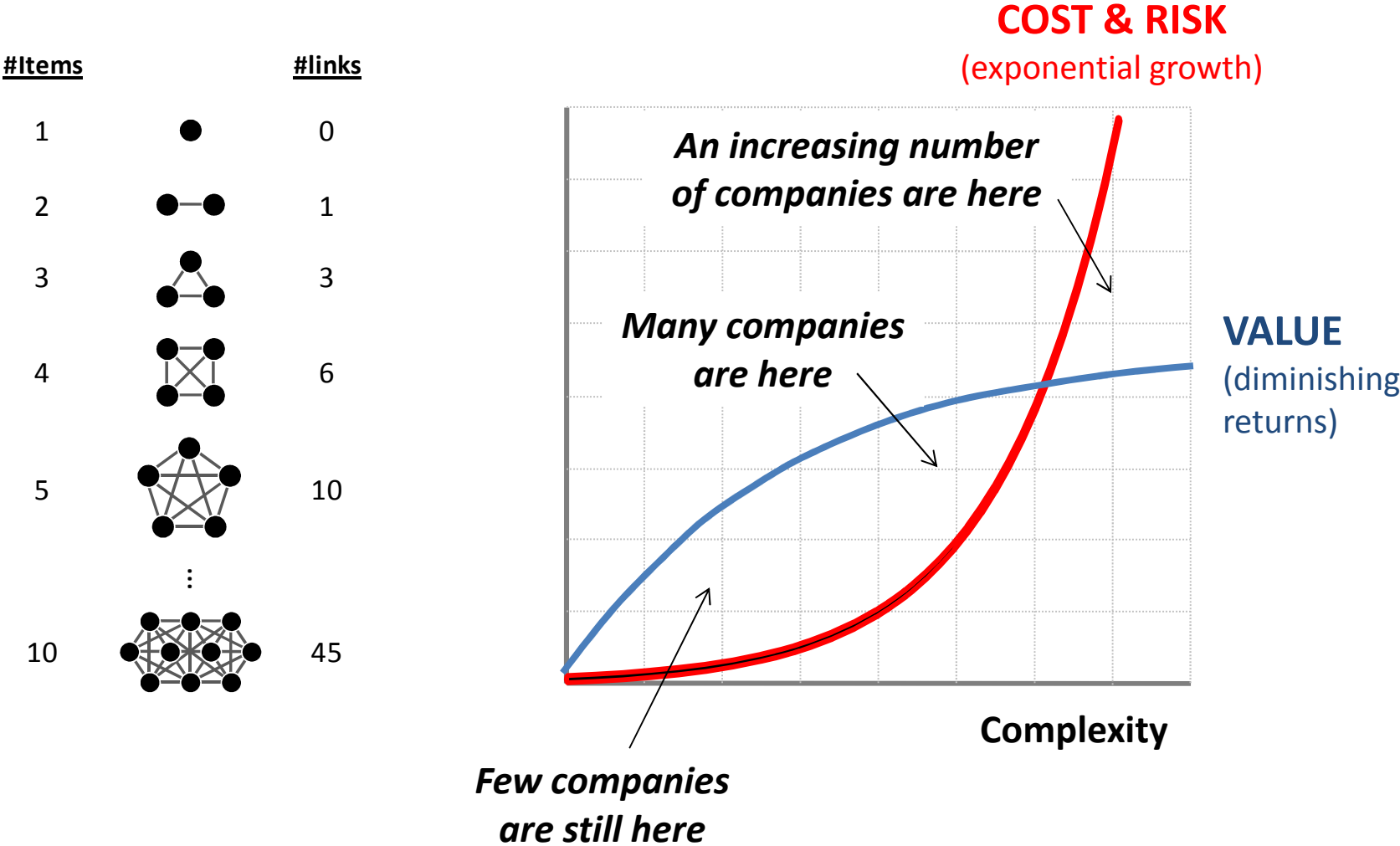


Complexity

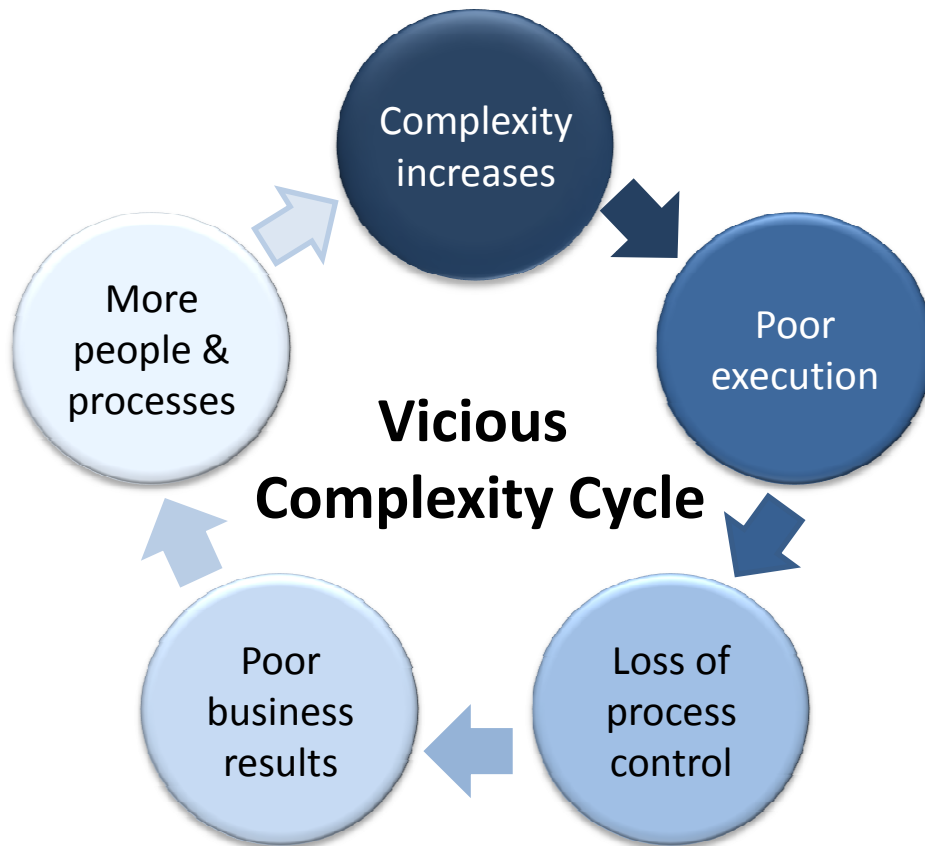
These organizations all had well-developed risk management programs and management systems

Companies Are Passing A Complexity Threshold

Operational risk grows exponentially with complexity



The Typical Response To Incidents Is To Add More Complexity, Which Compounds The Problem



Process Safety Management

• 29 CFR 1910.119



The Missing Link In These And Other Incidents: Behavioral and Operational Discipline Weaknesses

Behaviors

Systems

Execution

**Aligned
behaviors are
the foundation
for excellence**

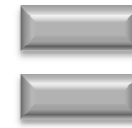


The Right Behaviors And Culture Are Essential

**Sound
Strategy**

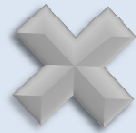


**Operational
Excellence**



**Leading
Performance**

**Processes,
Procedures
and Systems**



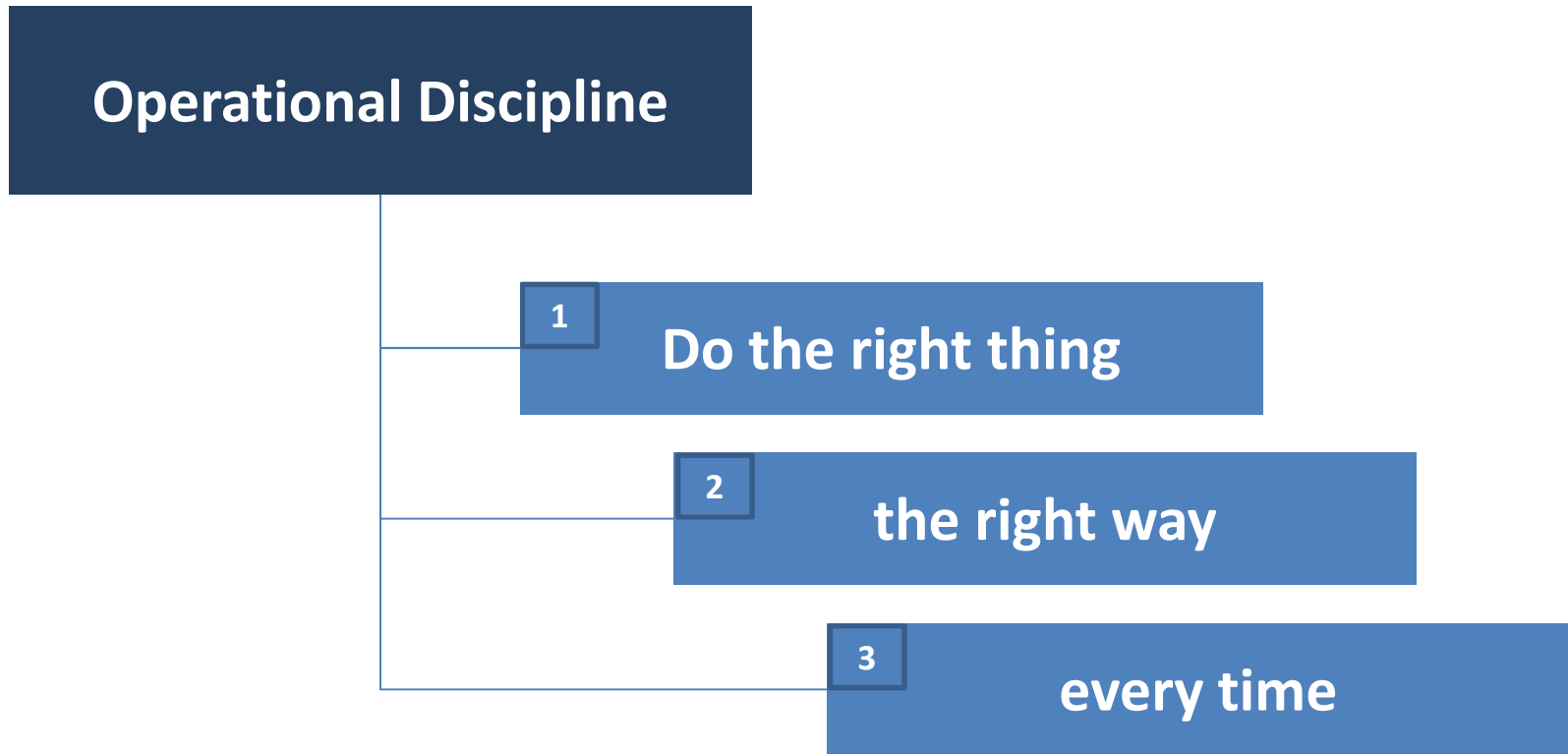
**Culture of
Operational
Discipline**



**Operational
Excellence**

Processes and procedures, without a culture that embraces values and behaviors, will not result in Operational Excellence

An Operational Discipline Culture: Three Simple Requirements



Instill Simple And Proven Behaviors


Operational Discipline

Doing the right thing,


the right way,

every time.


“Behavioral Pillars”



Increasing Knowledge. Understand not just what you do, but why you do it. Continually seek greater knowledge about the systems, processes, and hazards in and around your workplace.



Structured Approach. Treat your workplace and your role with respect, recognizing the seriousness of what you do and your role as a part of something bigger. Follow authorized procedures and expect the same from others. If you think of a better way, follow authorized processes to review and improve the procedures.



Questioning Attitude. Constantly ask yourself what could go wrong. Check for out-of-the-ordinary and learn to anticipate potential problems. Don't assume things are okay—verify.

Engagement. All employees actively back each other up and value the input of others. You look for what might be wrong in another's area, or what a co-worker might have missed, and expect the same in return. Employees act as 'each others keeper.'

Integrity and Courage. Be reliable. Do what you say you are going to do, completing every task the right way, every time, even if no one is watching.

Five Pillar Behaviors: Role Sheets And Improvement Action Plan Worksheet

Maintenance Planner

Role – To plan the safe, high quality and efficient execution of maintenance activities

Behaviors:	Questioning Attitude	Integrity & Courage	Engagement	Increasing Knowledge	Structured Approach
Expectations: What is expected of me	<ul style="list-style-type: none"> - Ask questions to assess job hazards during planning - Develop weekly maintenance plan with goal of eliminating or managing risks and resource limitations - Provide leadership for safe, reliable and efficient maintenance 	<ul style="list-style-type: none"> - Accountable for effectiveness of maintenance work plan - Recognize unacceptable levels of risk and decide on course of action to mitigate - Challenge and evaluate temporary fixes - Report all incidents, procedure deviations and near misses 	<ul style="list-style-type: none"> - Work with all maintenance crafts to balance priorities & resources for the support of operations - Build collaborative working relationship with operations - Work closely with operations supervisors, reliability personnel, maintenance execution supervisors and craftsmen - Understand weekly maintenance plan & schedule 	<ul style="list-style-type: none"> - Increase knowledge of best practices - Ensure routine audit of plan effectiveness and incorporate learnings - Share personal knowledge with other planners - Incorporate findings from incident investigations and near misses into future maintenance plans - Increase understanding of all maintenance processes and how they impact effectiveness 	<ul style="list-style-type: none"> - Responsible to execute established maintenance planning processes - Understand and apply all maintenance work procedures to work plans - Understand how overall refinery work flow process functions - Understand and assess risks that come from deviation in work plans and process changes
Tasks: How I fulfill these expectations	<ul style="list-style-type: none"> - Review current maintenance plans; communicate with Ops/ Maint coordinator as needed - Help craft group understand incident trends and impacts on planning - Ask hard questions while planning work - Conduct daily field visits to assess emerging risks and communicate key maintenance issues 	<ul style="list-style-type: none"> - Challenge any deviations from work plans - Take ownership of issues that occur and ensure a plan for resolution - Ensure all maintenance data is truthful, accurate and complete 	<ul style="list-style-type: none"> - Be proactive in finding collaborative solutions within maintenance/ops departments - Actively participate in routine planning/scheduling meetings - Seek out frequent feedback from maintenance supervisors and craftsmen - Communicate well, explain why, gather needed input for decisions 	<ul style="list-style-type: none"> - Meet regularly with supervisor to discuss personal development plan - Support new industry processes on principles and practices of maintenance planning and look for new and better ways of doing things - Review development needs (including areas outside of expertise) with Superintendent. 	<ul style="list-style-type: none"> - Review KPIs with Planning Superintendent - Work with supervisor to develop long range maintenance efficiency plan
Pillar	Behaviors	Improvement Actions	Results		
Questioning Attitude	<ul style="list-style-type: none"> • Question abnormal situations • Maintain vigilance • Chronic unease about risk • Anticipate risk • Verify, don't assume 				
Integrity & Courage	<ul style="list-style-type: none"> • Be reliable • Do what you say • Hold yourself and others accountable • Tell the truth 				
Engagement	<ul style="list-style-type: none"> • Help each other out • Work closely with peers • Solicit and value each others input • Intervene when you see risk 				
Increasing Knowledge	<ul style="list-style-type: none"> • Seek out knowledge to continually improve • Observe and learn • Practice • Utilize expertise of others 				
Structured Approach	<ul style="list-style-type: none"> • Comply with procedures and rules • Document thoroughly • Follow roles and responsibilities • Act with professionalism • Communicate effectively 				

✓ A powerful tool to drive change and improvement

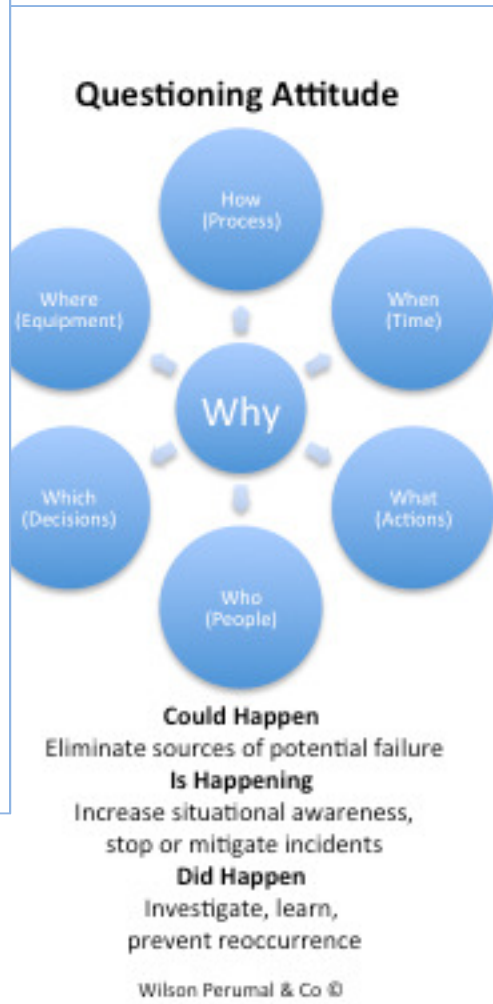
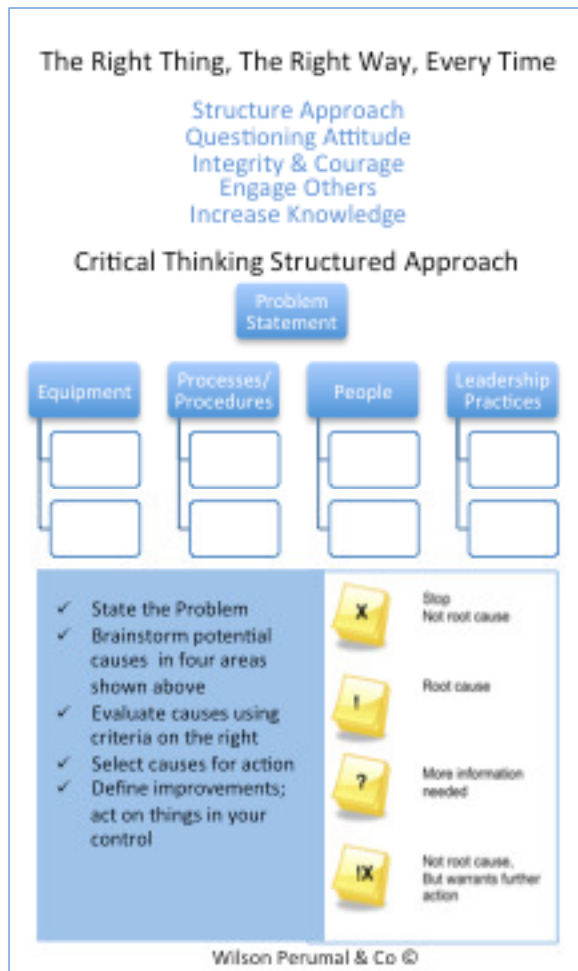
- Questioning Attitude
- Integrity and Courage
- Engagement
- Increasing Knowledge
- Structured Approach

✓ Role sheets developed for all positions in the company

✓ Improvement Plan Worksheets define areas for personal improvement

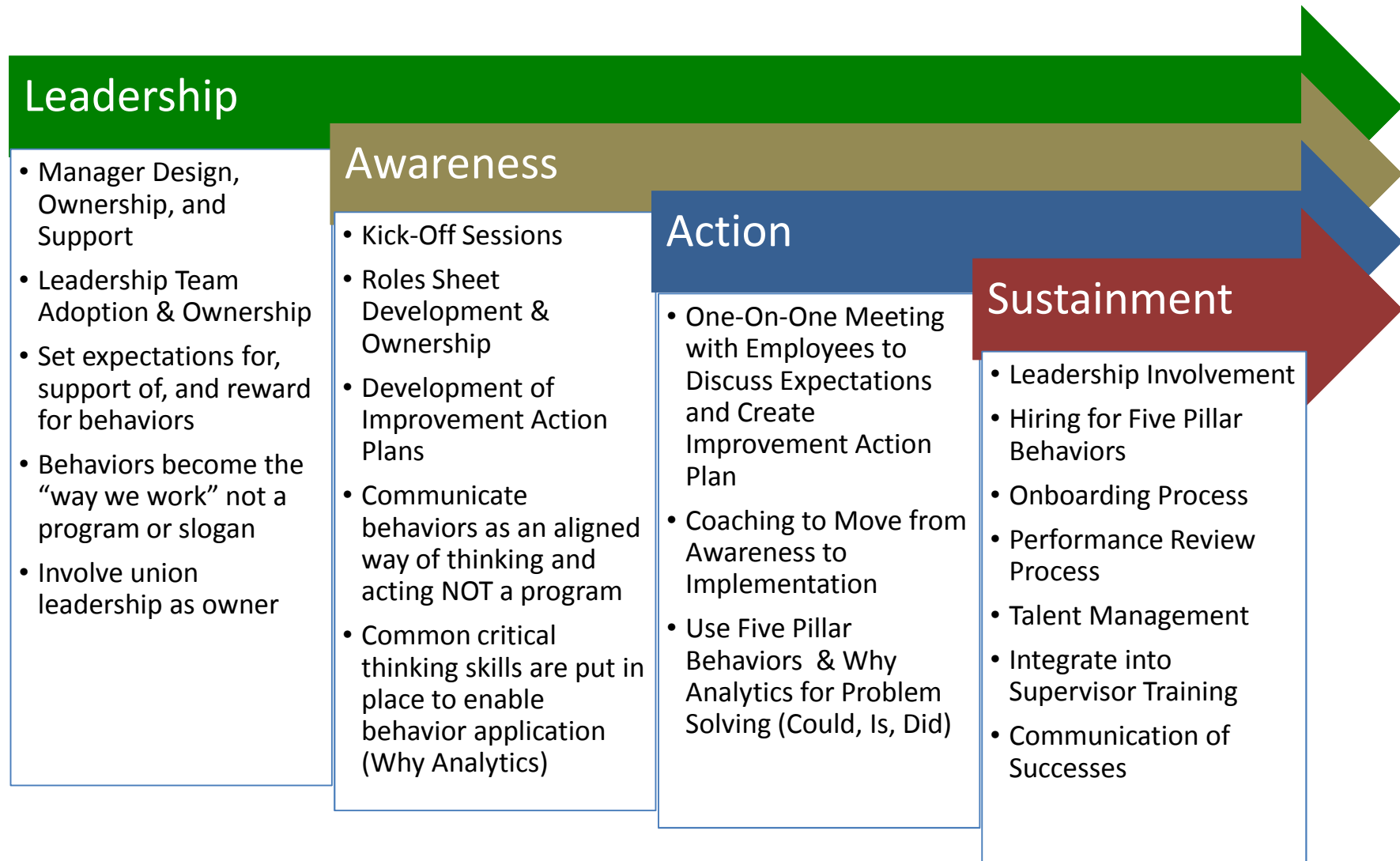
✓ The improvement process works best when managers and supervisors interact with individuals, drive and lead the process

Why Analytics: An Effective Way To Apply The Pillars



- ✓ Develop skills from all segments of business (operations, maintenance, engineering, SHE, accounting, executives)
- ✓ Integrates with the Pillars, show how to apply the Pillars
- ✓ Builds common language of critical thinking skills
- ✓ Simple to apply
- ✓ Our experience is that participant feedback very positive – ability to improve problem solving has been demonstrated

4 Step Approach To Align Behaviors And Reduce Incidents



Summary

- Behaviors and an operational discipline culture are key to reducing incidents
- Without addressing behaviors, complexity prevents typical improvement initiatives and management systems from succeeding
- Five Pillar Behaviors and Why Analytics can reduce the risk of incidents and improve your performance

WP&C helps companies across three areas:



Strategic advantage is fleeting, requiring a **faster, nimbler approach** to strategy

Complexity is the defining issue for many companies today, with **impacts on cost, growth, and risk**

Companies today need **new capabilities and a more holistic approach** to operations

We help our clients connect the dots in their business—while most consulting firms focus on individual parts, we also focus on how those pieces fit and work together for superior business performance

Complexity is a growing challenge for companies; WP&C helps companies meet this challenge

In a recent survey, CEO's identified complexity as the primary challenge they face. Nearly 80% said they expect high levels of complexity over the next five years. Yet far fewer felt prepared.

“Complexity dramatically increases cost and risk of failure. It is like a cancer that eats away at efficiency and profitability.”

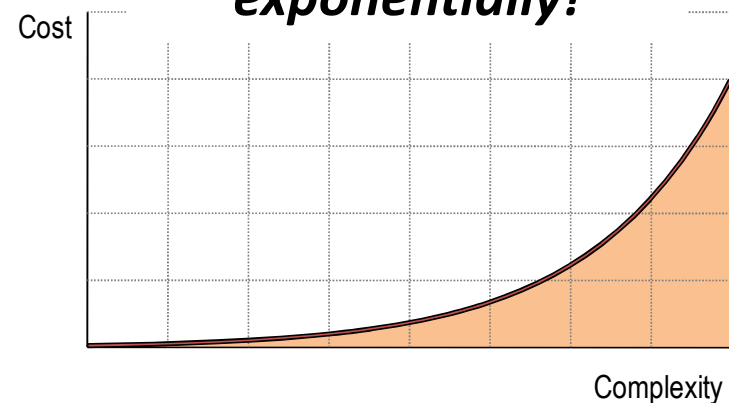
– Andy Beal
Chairman & CEO, Beal Bank

COMPLEXITY

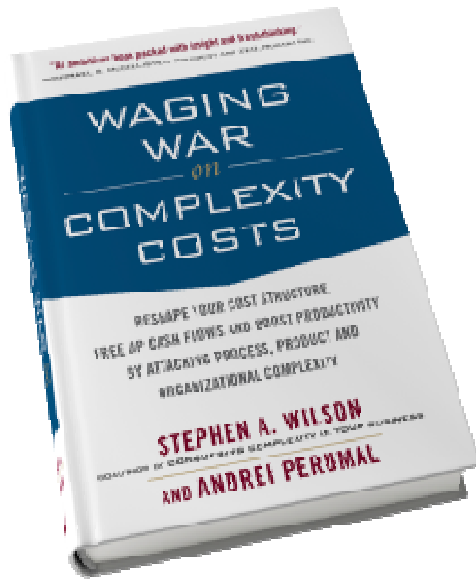
Impacts your:



And its impact grows exponentially!



We literally wrote the book on Complexity!



“This book delivers.”

– Ahmad R. Chatila, CEO
MEMC Electronic Materials Inc.

“...an ambitious book packed with insight and fresh thinking. Separating good from bad complexity is a critical task facing companies today, and the authors provide a compelling roadmap”

– Michael B. McCallister
President & CEO, Humana Inc.

- We are thought leaders and practitioners
- Authors of *Waging War on Complexity* (the #1 business book on complexity) and an upcoming book on *accelerating profitable growth*
- Featured in *CEO Magazine*, *CNBC*, *Investors Business Daily*, *The European Business Review*, and *Agenda* (an FT publication)
- Have written numerous other publications on safety, risk, and growth