

# Culture – The Lynchpin for Safety – So What? Now What?

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# The Raft of the Medusa



# Principles of Safety Culture Assessment

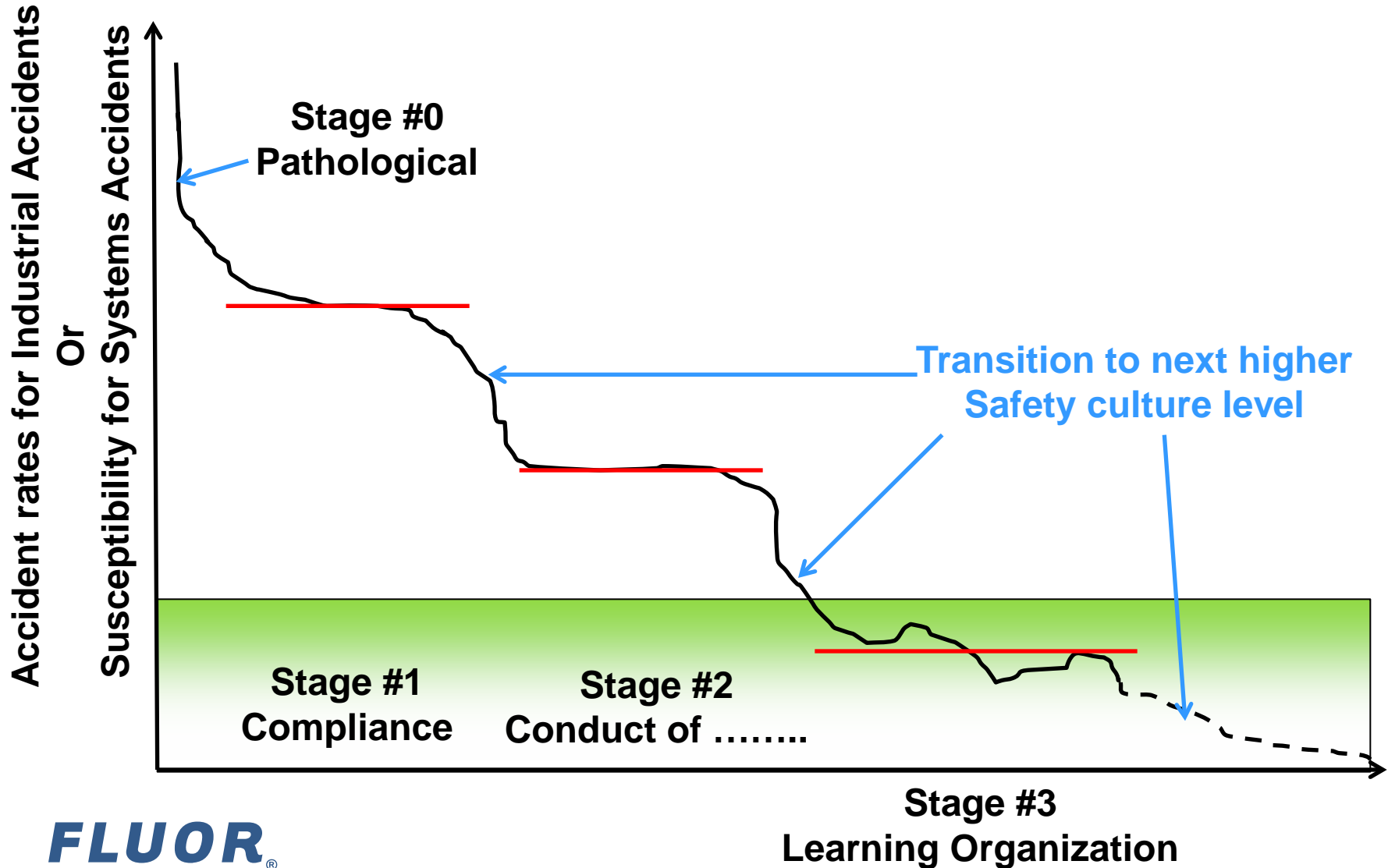
- ◆ WYLFIWYF <sup>\*</sup>
  - What you look for is what you find
- ◆ WYFIWYF <sup>\*</sup>
  - What you find is what you fix
- ◆ WYSIATI <sup>\*\*</sup>
  - What you see is all there is

<sup>\*</sup> Sidney Dekker  
<sup>\*</sup> <sup>\*</sup> Naj Meshkati

# Cultural Maturity Model

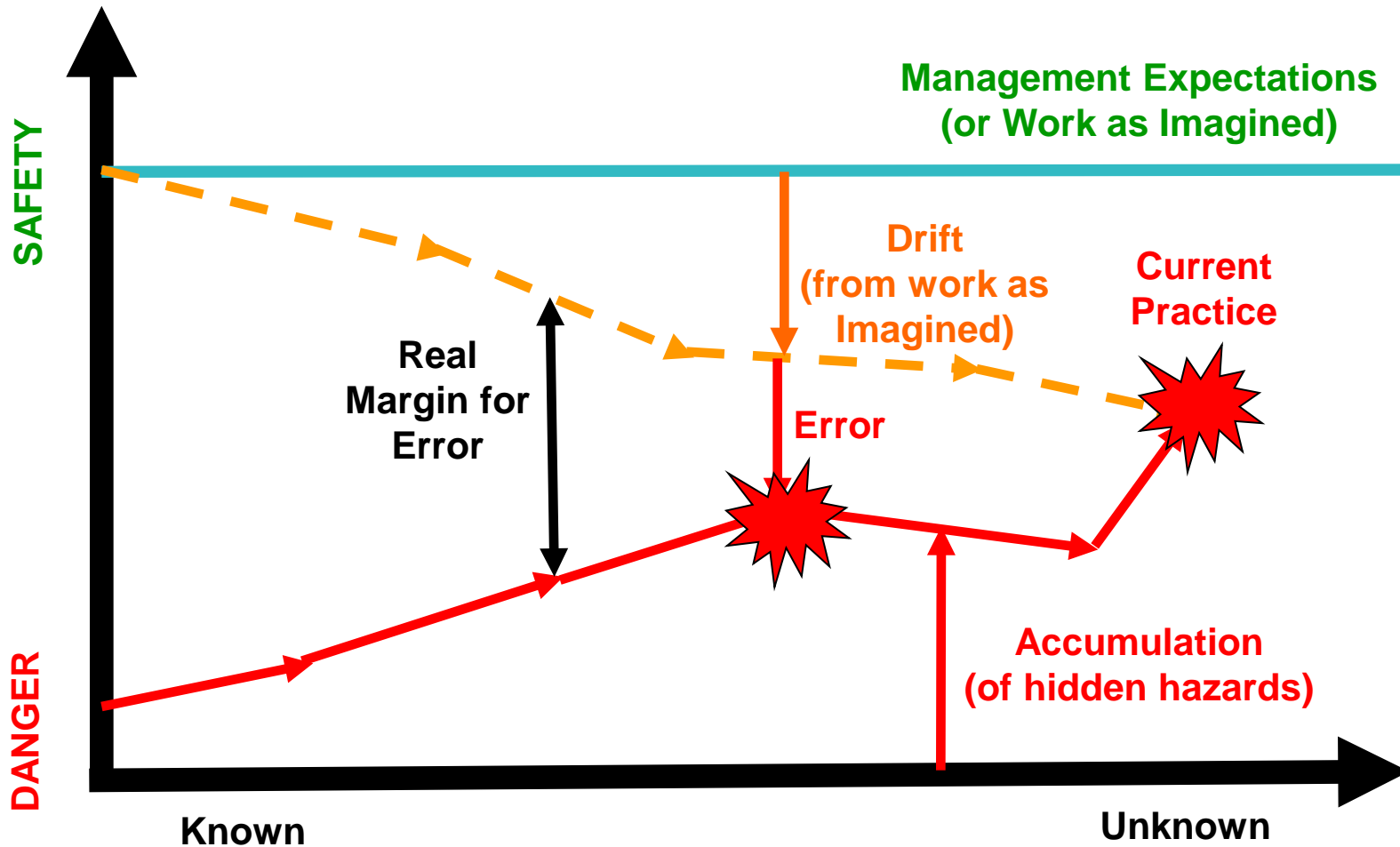
- ◆ Described in IAEA TECDOC 1329
- ◆ Three levels of cultural maturity
  - Safety based on rules and regulations (Compliance)
  - Safety as an organizational goal (Conduct of.....)
  - Safety can always be improved (Learning)

# Improvements in Safety for Each Stage of Safety Culture Maturity

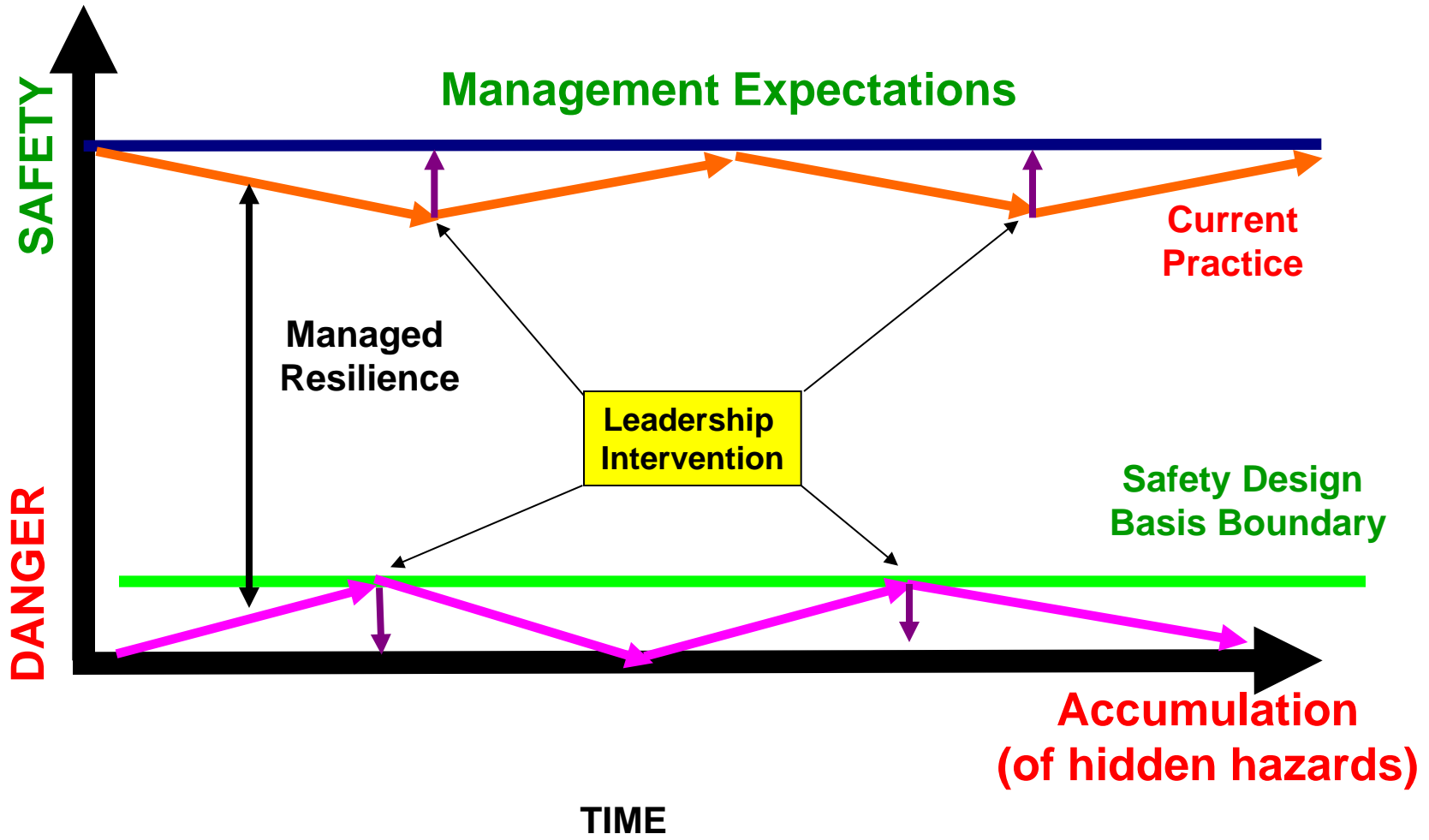




# Drift and Accumulation\* - Compliance Model



# Drift and Accumulation - Conduct of Operations Model



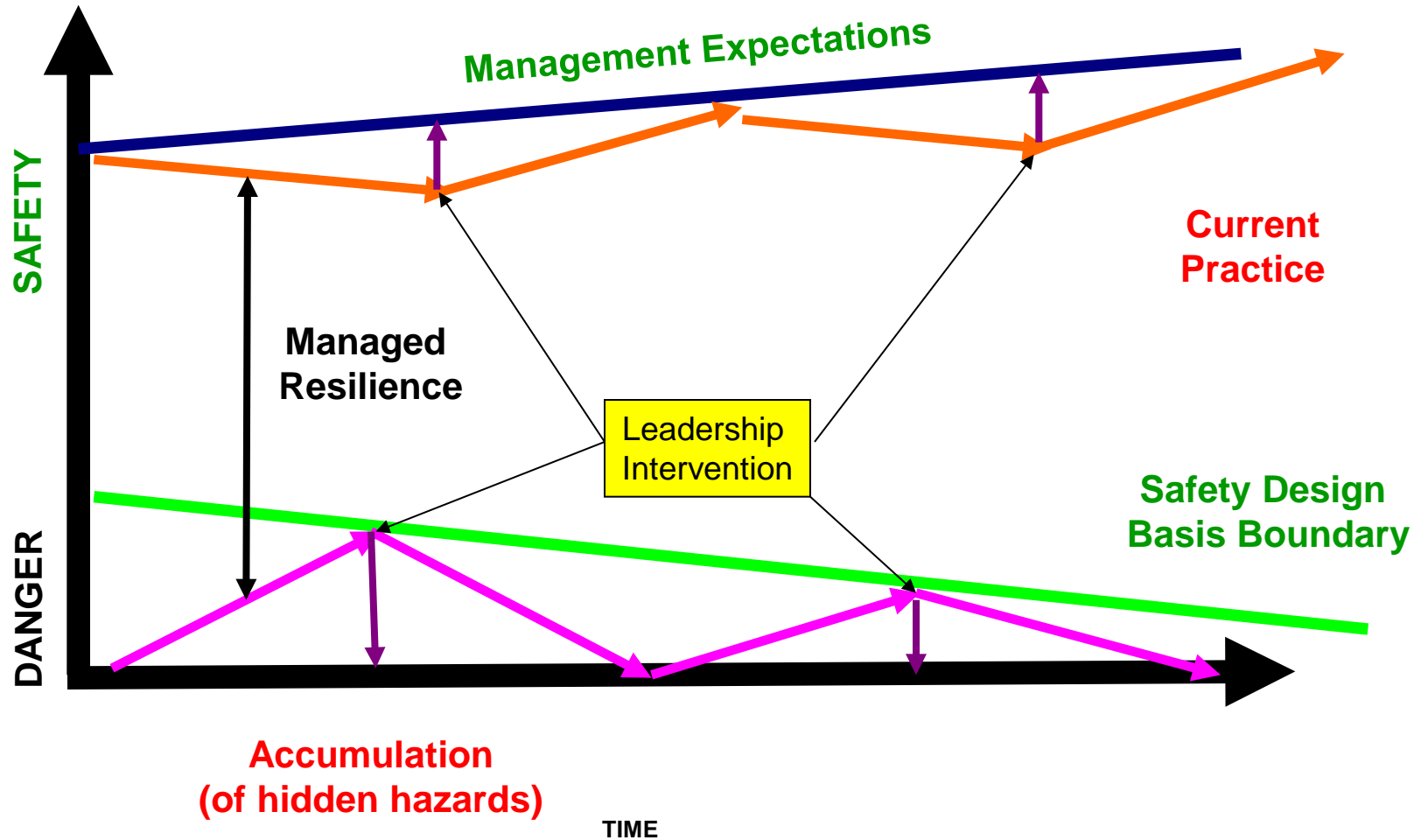
# Capabilities of High Reliability Organizations\*

- ◆ Seeing problems as they are
  - Focus on system design and transparency to see problems
- ◆ Swarming and solving problems as they are seen
- ◆ Spreading new knowledge
- ◆ Leading by developing capabilities 1, 2, & 3
  - Leadership mentoring to increase the capacity for learning

\*Stephen Spear, The High Velocity Edge



# Drift and Accumulation\* - High Reliability/Resilience Model



# Case Studies

- ◆ Commercial Refinery undergoing \$2B upgrade
- ◆ Government Shipyard that has experienced 3 fatalities in the past year
- ◆ Government Site experiencing increase in injuries and events since contract transition

# Commercial Refinery

- ◆ \$2B original scope
- ◆ 100% over budget; behind schedule
- ◆ 2 project managers, 2 construction managers, 3 HSE managers in 2 years
- ◆ Tense labor relations with several unions on site
- ◆ 5000 workers every day
- ◆ Observations of HSE professionals in the field
  - HSE professionals wear red helmets and shirts to increase visibility
  - When HSE professionals enter construction site, construction workers move away from them

# Government Shipyard

- ◆ 8000 employees in heavy industrial environment
- ◆ 3 fatalities in one year
- ◆ 3 shipyard commanders in 2 years
- ◆ Invested heavily in Senge 5<sup>th</sup> Discipline and Learning Organization
- ◆ Observations
  - HSE professionals wear green cross helmets
  - When they are in the field workers move toward them to tell them things they've found or to ask them questions

# Government Nuclear Site

- ◆ 2 years since contract transition
- ◆ Labor issues on transition
- ◆ Different regulator
- ◆ Significantly increased scope
- ◆ Increased injury rate and heavy equipment events in past year
- ◆ Relative stability in project management leadership team
- ◆ Observations
  - ES&H department widely recognized as “owning” safety
  - ES&H initiates all JHA’s, resulting in lengthy and detailed hazards and controls
  - Large gaps between “work as planned” and “work a done” ( $\Delta W$ )

# Two Questions Leaders Should Ask After Safety Culture Assessments

## ◆ So what?

- Is this a big problem?
- Can I address the culture gaps with standard management practices?

## ◆ Now What?

- “If you always do what you’ve always done, you’re always going to get what you have right now” – Conventional wisdom
- “There are no easy answers to hard problems” – ADM Rickover
- Large gaps in alignment between senior leadership and front line workers usually require interventions larger than anticipated – The bad news
- Effective cultural interventions can result in rapid improvements in a company’s bottom line – The good news

# Safety Redefined...\*

- ◆ **Safety** is not the absence of accidents
- ◆ **Safety** is the presence of **defenses** in your processes, procedures, and methods.

- In short...

What we do for a living is keep failure from being successful.

\* Todd Conklin, LANL



# Questions?



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