

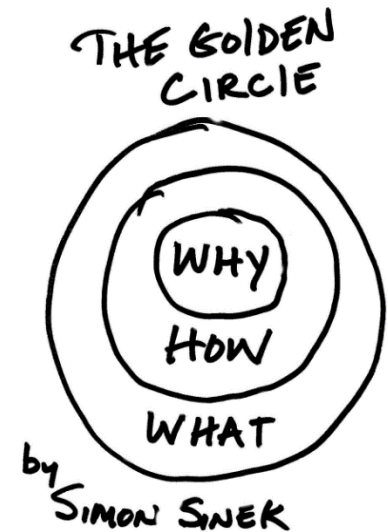
# Safety Culture in Life Science Labs— Through the Looking Glass

Presented to: FESAP Working Group 1.1

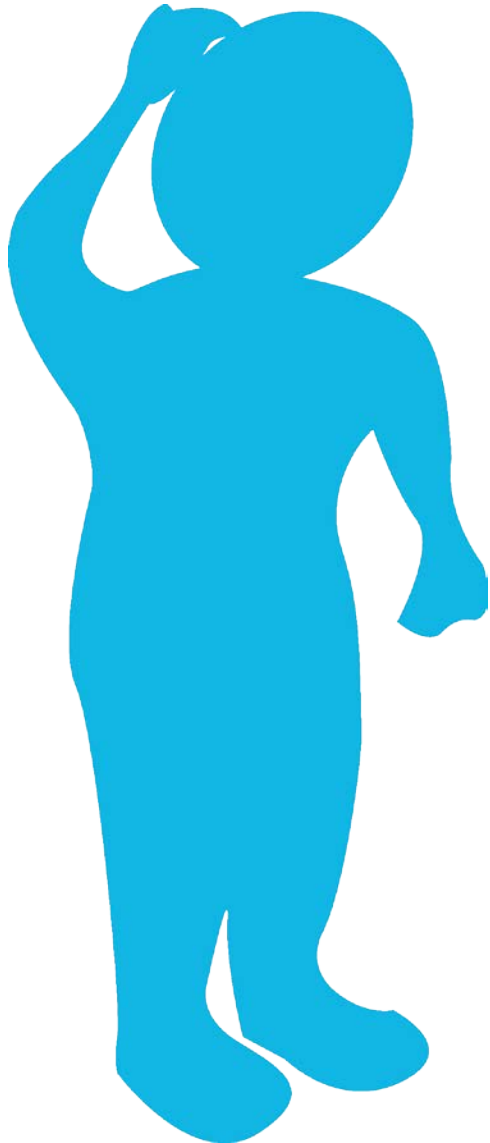
Fitz Trumble & Paul Gubanc

# Setting the Context

- High consequence industries depend upon workplace “culture” to deliver high reliability performance
  - Regulatory/Social penalties do not provide tools
- Publications on workplace culture are typically:
  - Lengthy (50+ pages)
  - Complex and inter-woven
- The Life Sciences workforce is typically:
  - Scientific and evidence-based
  - Consumed with “day job” demands
- The Challenge: Engaging a busy and intellectual workforce with a simple message on a complex subject that they will embrace.
  - Sinek Golden Circle, <https://www.youtube.com/watch?v=Jeg3llK8lro>

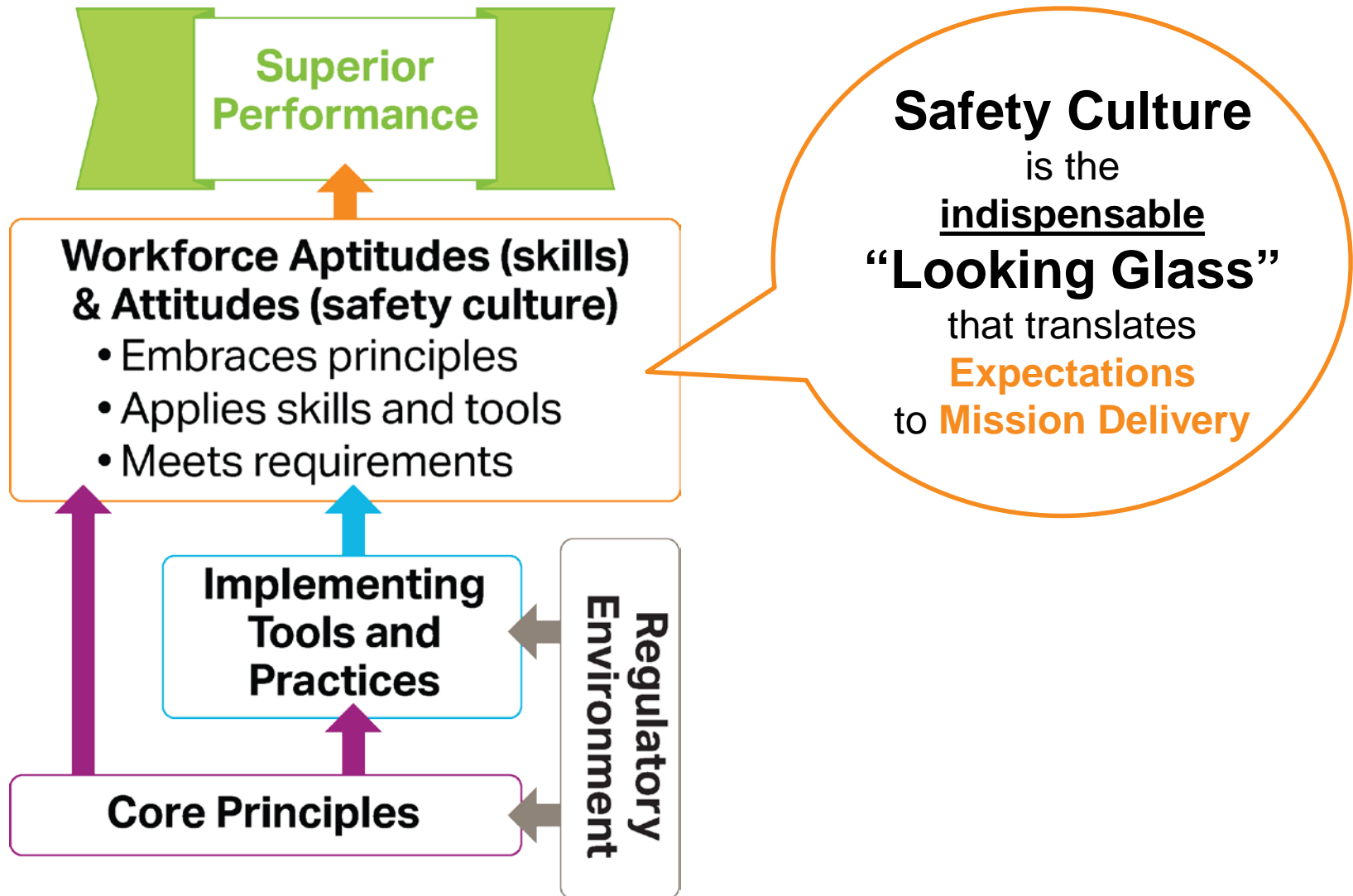


# We're Each Confronted with Many Expectations



- Mission
- Compliance
- Cost
- Schedule
- Accountability
- Safety
- Quality
- Efficiency
- Reliability
- Repeatability

# A Simple Model Offers Clarity



# History

## – Safety Culture

- Chernobyl (1986) Nuclear
- Piper Alpha (1988) Oil & Gas
- Challenger (1986) Aerospace
- Bhopal (1984) Chemical

## – Safety Climate



# Classical Safety Culture Definition

- Institute for Nuclear Power Operation (INPO)
- Occupational Safety & Health (OSHA)
- National Aeronautics Space Administration (NASA)
- Focused heavily on what it looks like and determining measureable traits

# Emotional Safety Culture Definition

– Focused on personal **behaviors** and emotional connection:

- **I**ntegrity
- **C**uriosity
- **H**umility

– Supported and sustained organizationally by:

- **L**eadership

# Behaviors

## — Integrity

- *Doing* the right thing, even when no one is watching.
- Believe the indications—until you can prove they are wrong.

## — Curiosity

- Always wondering what could go wrong—even if it hasn't yet.
- *Questioning* why a system's behaving that way.

## — Humility

- *Knowing* there is always more left to learn—and I can learn something from listening.
- “Because I said so”—is not an acceptable reason.

## — Leadership

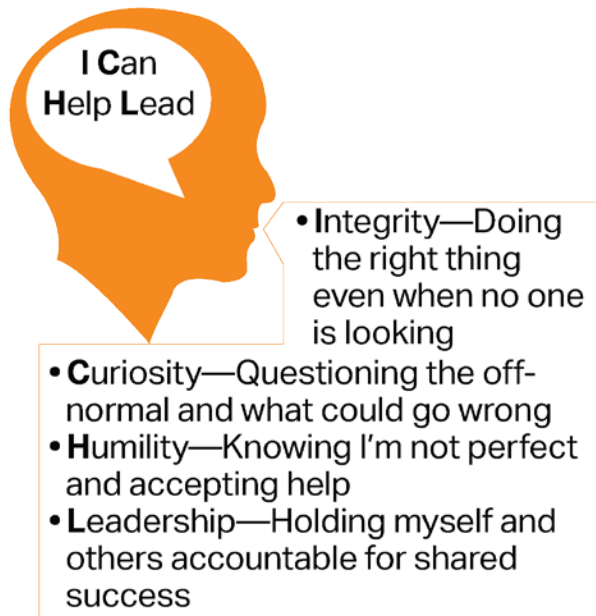
- Has nothing to do with titles or power.
- *Demonstrating* personal and professional accountability—for yourself and others.



# A Mnemonic to Remember



**I CAN HELP LEAD**



# Case Studies

- NIH/FDA discovery of Small Pox outside containment (7/2014) <sup>1</sup>
- CDC potential Anthrax exposure (7/2014) <sup>2</sup>
- Dugway distribution of viable Anthrax spores (5/2015) <sup>3</sup>

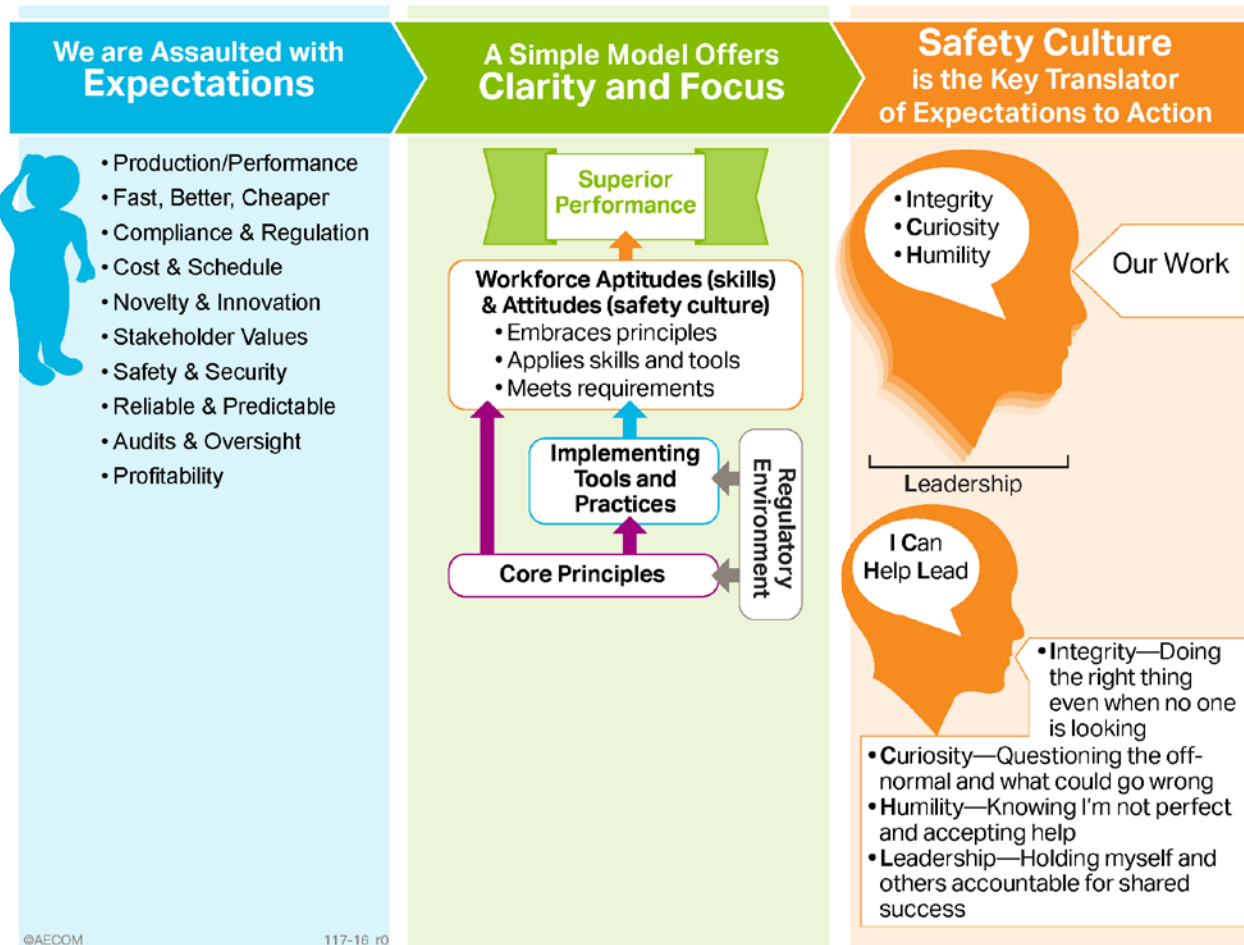
<sup>1</sup><http://docs.house.gov/meetings/IF/IF02/20160420/104823/HHRG-114-IF02-20160420-SD003.pdf>

<sup>2</sup>[http://www.cdc.gov/about/pdf/lab-safety/Final\\_Anthrax\\_Report.pdf](http://www.cdc.gov/about/pdf/lab-safety/Final_Anthrax_Report.pdf)

<sup>3</sup><https://assets.documentcloud.org/documents/2691592/Dugway-Proving-Ground-Anthrax-Shipment-AR-15-6.pdf>

# Putting it all together

## "I Can Help Lead" A Safety Culture Model



# Benefits

- Provides a way to “slot” safety culture among all the other expectations
- Shows the value of safety culture to performance and accomplishment of mission
- Provides a way for people to internalize safety culture in a way they can feel and inherently understand
- Allows for the spread of the idea via discussion, not just a paper process
- Reminds, through the mnemonic, that safety culture starts with them as individuals

# In Conclusion

To affect a positive change in workforce culture:

- Start with WHY
- Keep it SIMPLE
- Connect to their VALUES

Thank you.

[paul.gubanc@aecom.com](mailto:paul.gubanc@aecom.com)

[fitz.trumble@aecom.com](mailto:fitz.trumble@aecom.com)

# About The Speakers & Their Employer

- Paul Gubanc, PE, CSP, PMP
  - 35 years in the nuclear industry (3 yrs biosafety)
  - Nuclear Navy, Federal Safety Inspector, Oak Ridge National Lab, AECOM Tech Services (in the US & UK)
- Fitz Trumble
  - 33 years in the nuclear industry (3 yrs biosafety)
  - Comm'l & Gov't Nuclear, Nuclear Safety, Org. Change, AECOM Technical Services
- AECOM, [www.aecom.com](http://www.aecom.com)
  - A premier, fully integrated global infrastructure firm
  - \$17B/yr, 87000 employees
  - Significant presence in running high consequence operations (e.g., gov't nuclear, chemical weapons, BSL3/4 lab construction)
  - US Military, DTRA & CDC/NIOSH support services

