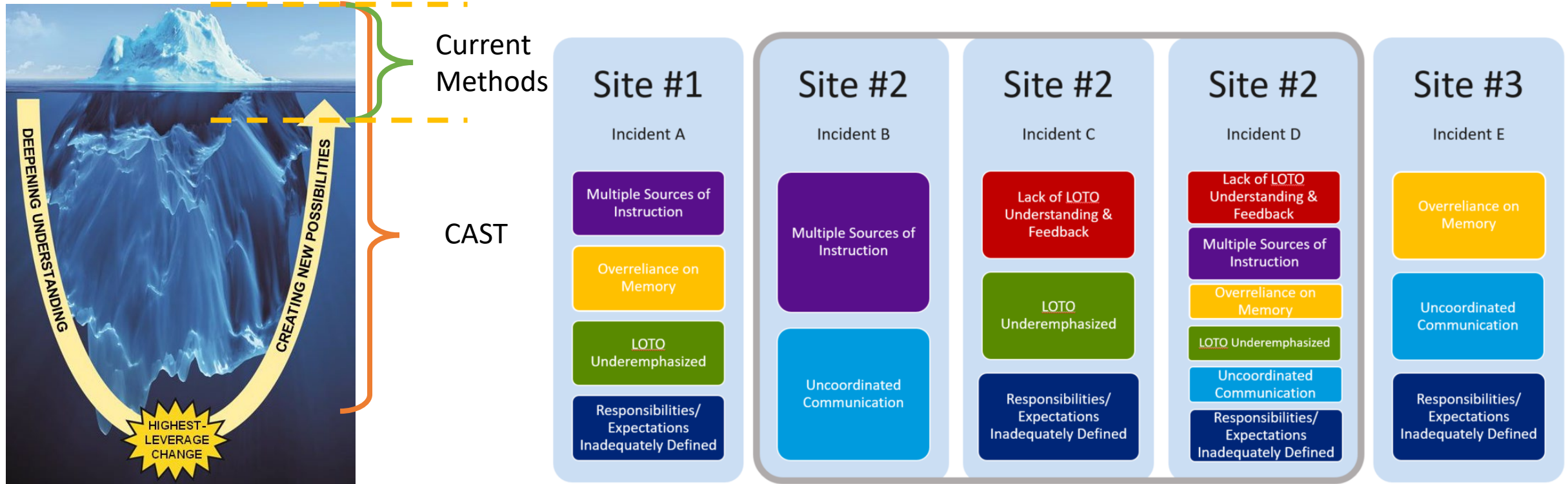




# Applying CAST to Human Error Related Manufacturing Mishaps

**Jess Reid**  
**Emily Howard**  
**Kyle Ryan**

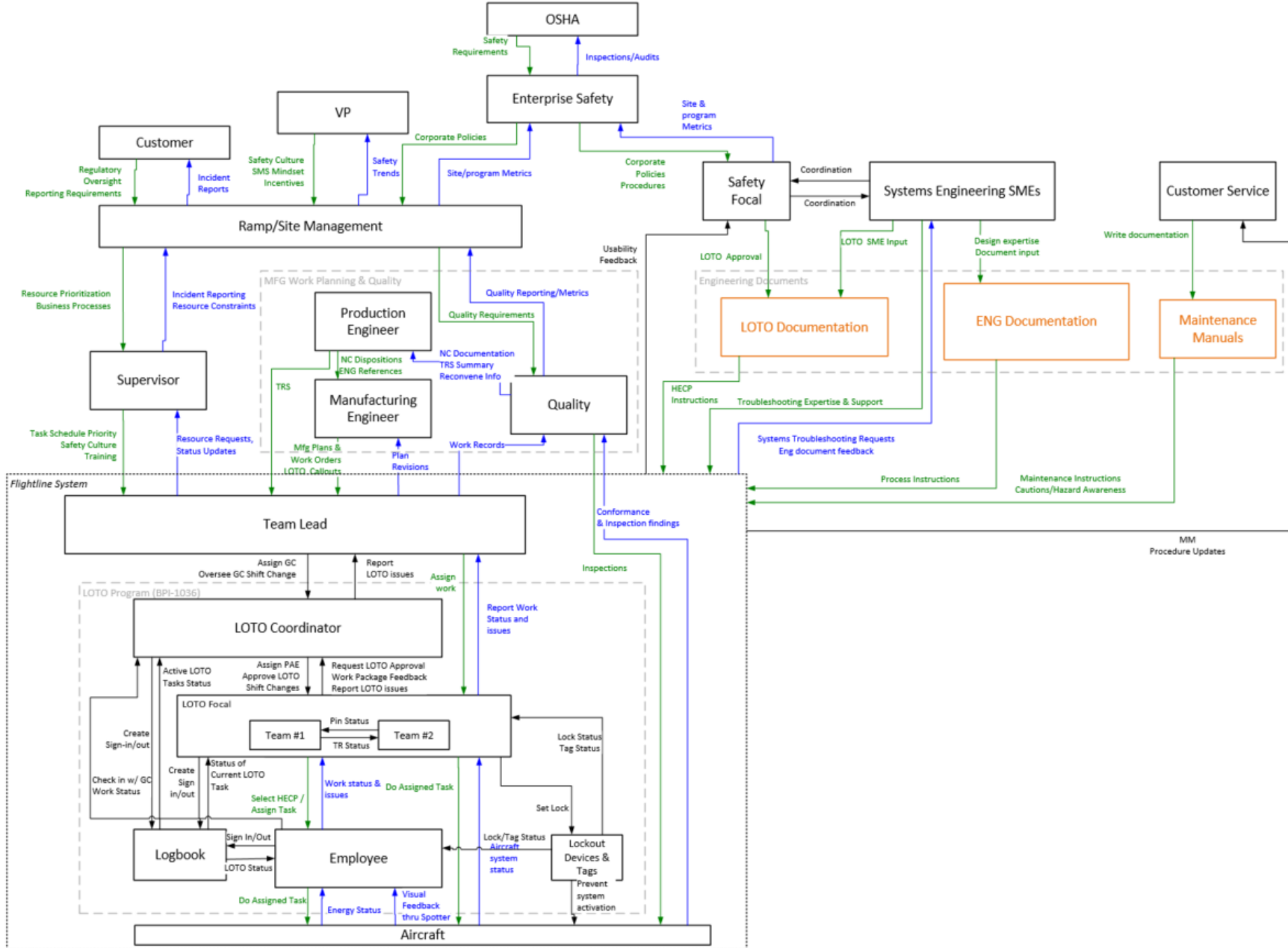
# Enhancing Mishap Analysis with Multi-Incident CAST



CAST Indicates Deeper Systems Issues

Five CAST studies completed across three sites found six common causal factors

# Site #2 Multi-Incident Control Structure Model



# Site #2 Multi-Incident Control Structure Model

Lack of LOTO Understanding & Feedback

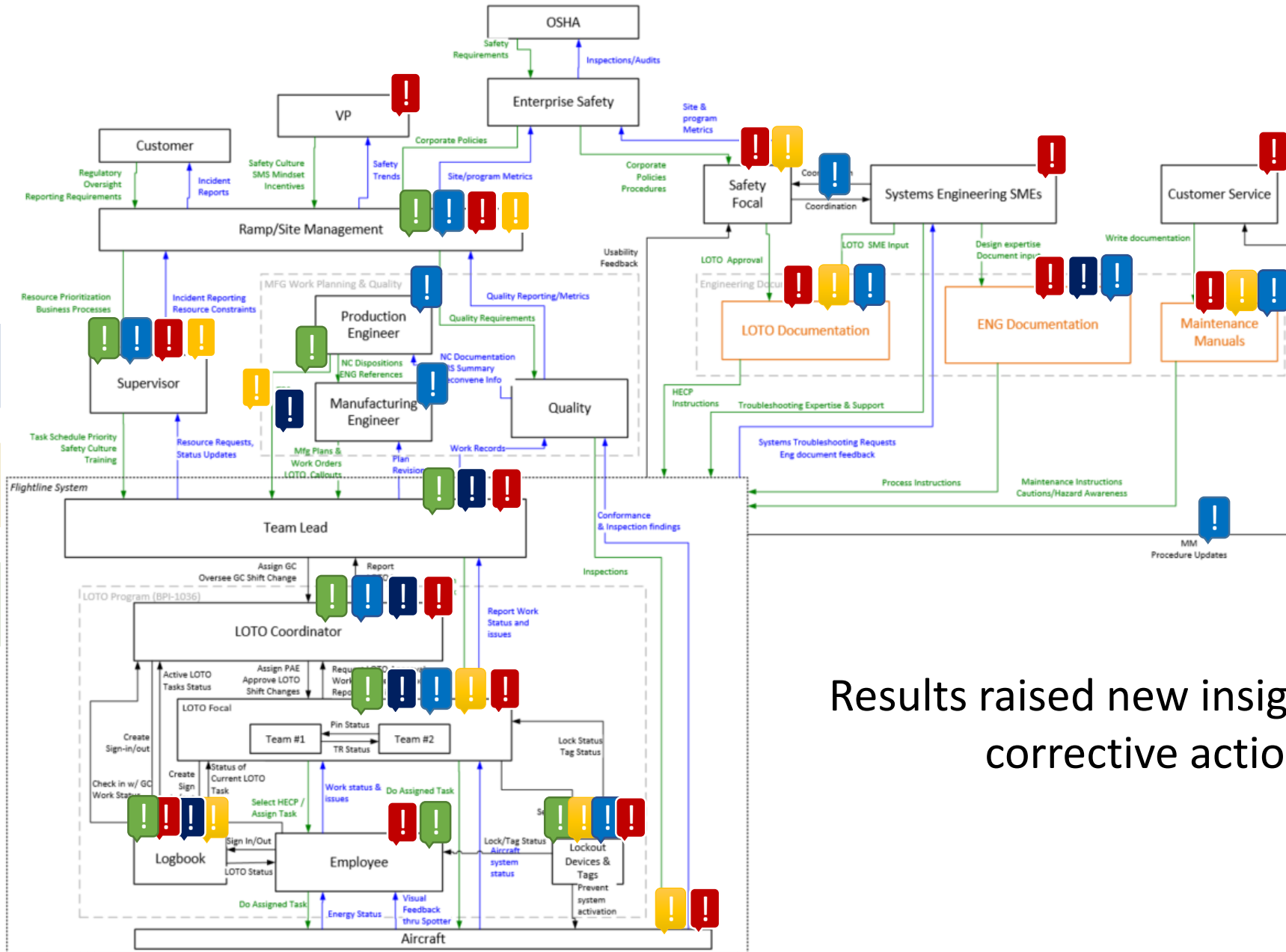
Multiple Sources of Instruction

Overreliance on Memory

LOTO Underemphasized

Uncoordinated Communication

Roles/Responsibilities/Expectations Inadequately Defined



Results raised new insights toward corrective actions.

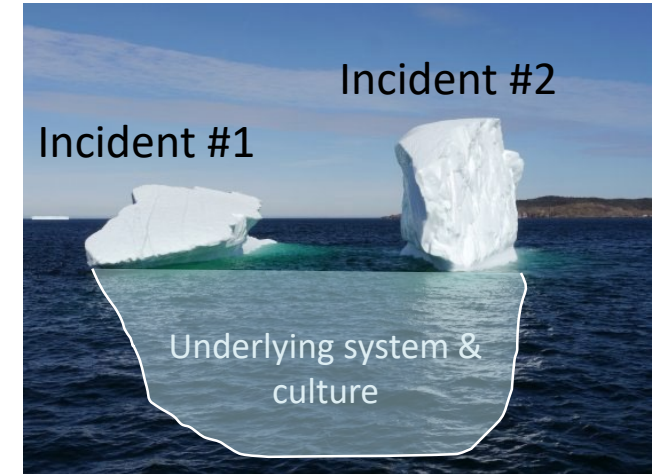
# Enhancing Mishap Analysis with Multi-Incident CAST

- Control Structure Models being created for other processes that have had mishaps attributed to human error
- Replicating technique across two sites, plans to expand to Enterprise
- CAST supports leadership commitment to Just Culture and Safety Management System
- CAST enables our Company to look upstream and create targeted corrective actions

Government Customer Comments:

“Detailed analysis that must have provided many ‘aha and are you kidding me?!’ moments”

“This control structure model is great systems engineering, and doing this work to get the process right is a big deal”



CAST connects seemingly isolated, separate mishaps

