

**Hyper-Integrated Causal Analysis**  
Light Years Ahead of the Competition

# BlueDragon Nation Monthly Forum

**February 18, 2021**  
**3pm EST**



**BlueDragon HCA®**  
SOLVE A PROBLEM.  
MAKE A DIFFERENCE.  
CHANGE THE WORLD.



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# Introductions



Rob De La Espriella  
Creator, BlueDragon HCA



Sherry Gevedon, PhD  
Genius Lab, BlueDragon Partner



Bill Toth, PhD  
Oak Ridge National Lab



Andrew Price  
BlueDragon Sr. Marketing Officer



Ken Guralnik  
BlueDragon Training Consultant



Joy Worrell  
BlueDragon Director of PR/Comm



## Guest Speaker

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William J. Toth, PhD  
Group Lead, Facility and Systems Security  
Nuclear Nonproliferation Division  
Oak Ridge National Laboratory





# Guest Speaker



Jesse Kelly

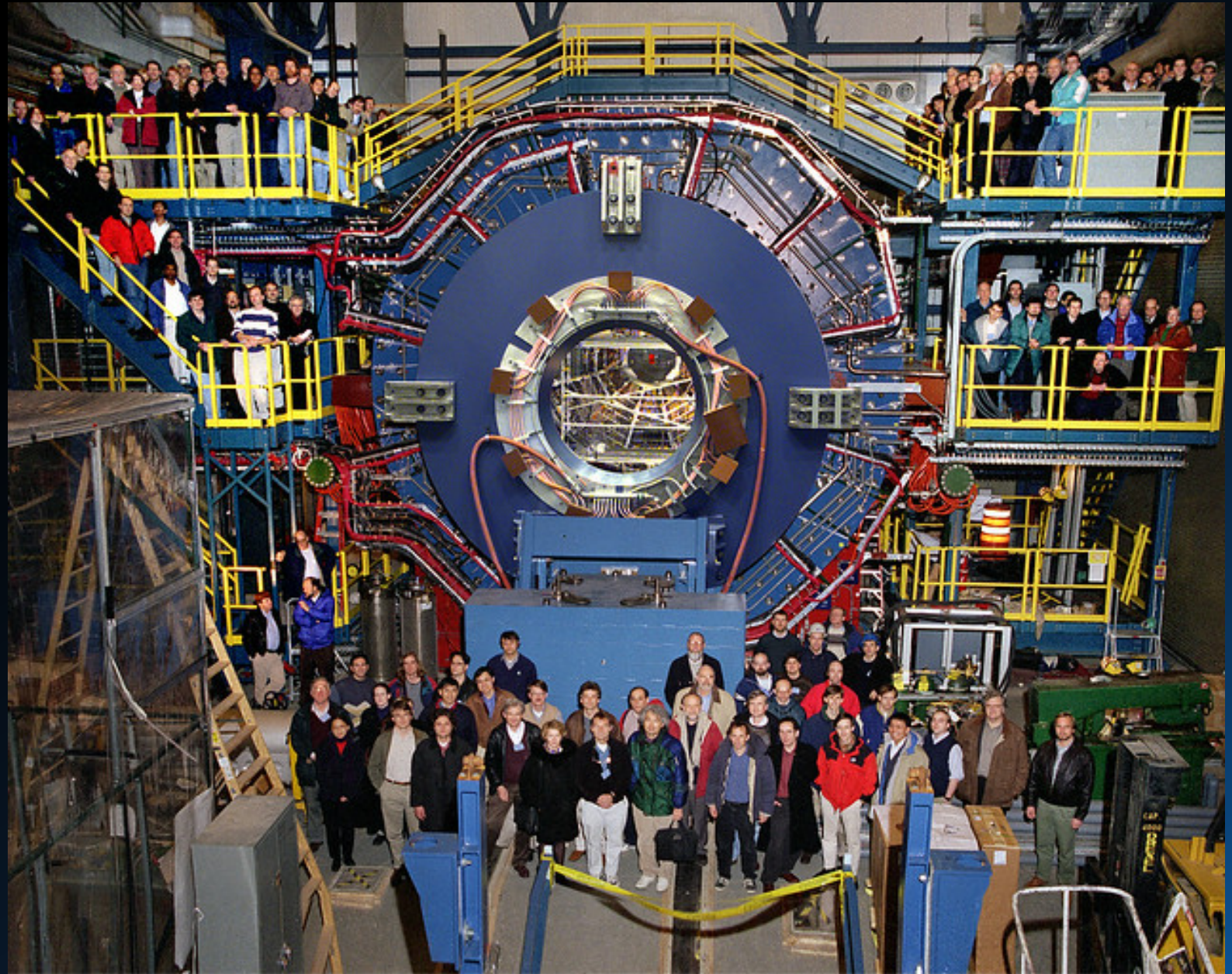
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## Today's Guest Presentation: Tracy Bradley



### The Defensive Posture

- You versus me feeling
- I am going to get blamed for this
- I am uncomfortable here



Today's Guest Presentation: Tracy Bradley



## The Interview Process (Facilitated Causal Analysis)

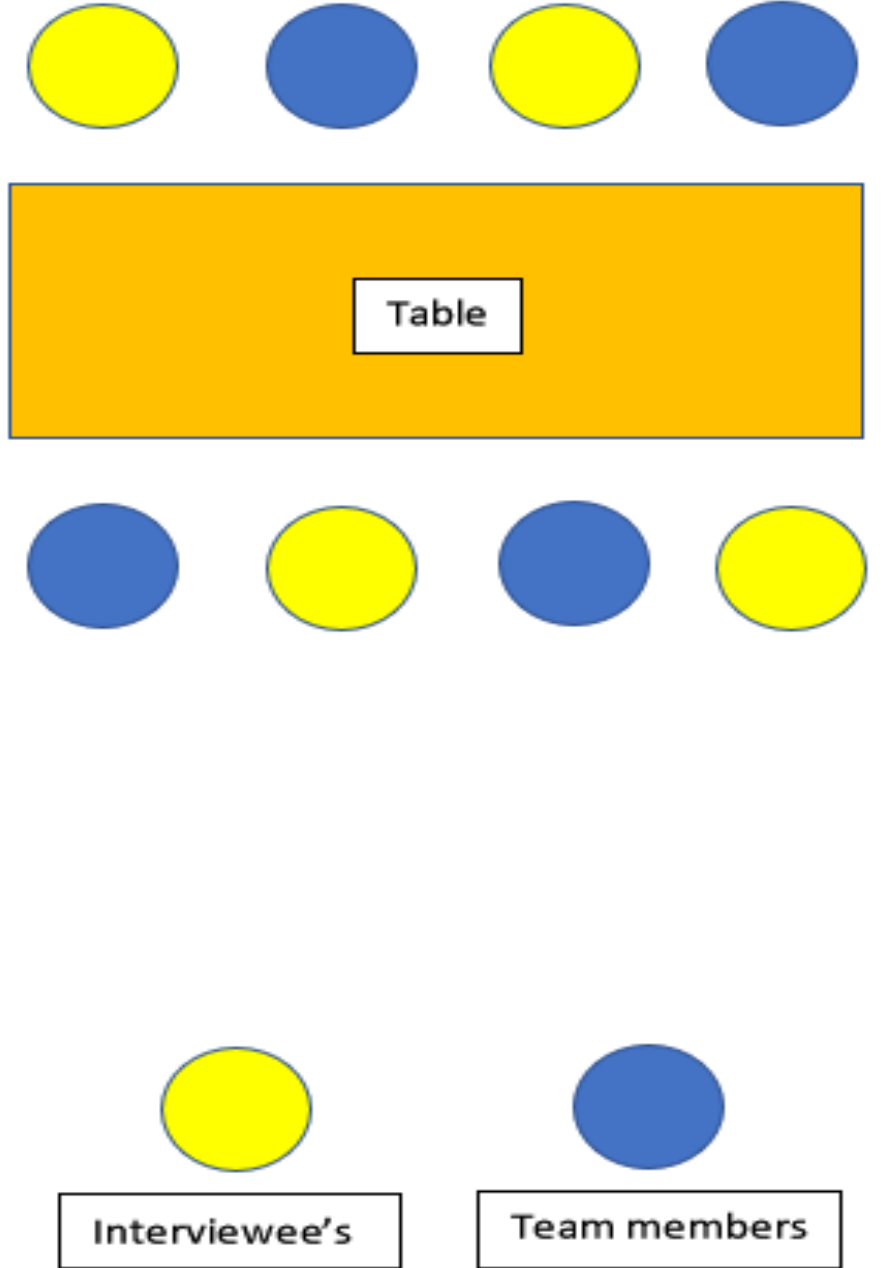
- Leaving behind the old way of thinking
- Perception is reality for the human mind
- Need to relax the interviewees



## Today's Guest Presentation: Tracy Bradley



### The Seating Chart







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## *Feburay Forum Topic*

Understand how BlueDragon  
HCA is integral to a  
Risk Management System.





# HCA in Risk Management Systems

What is Risk Management, and what does your organization do to proactively manage risk and prevent significant events from occurring?





# HCA in Risk Management Systems



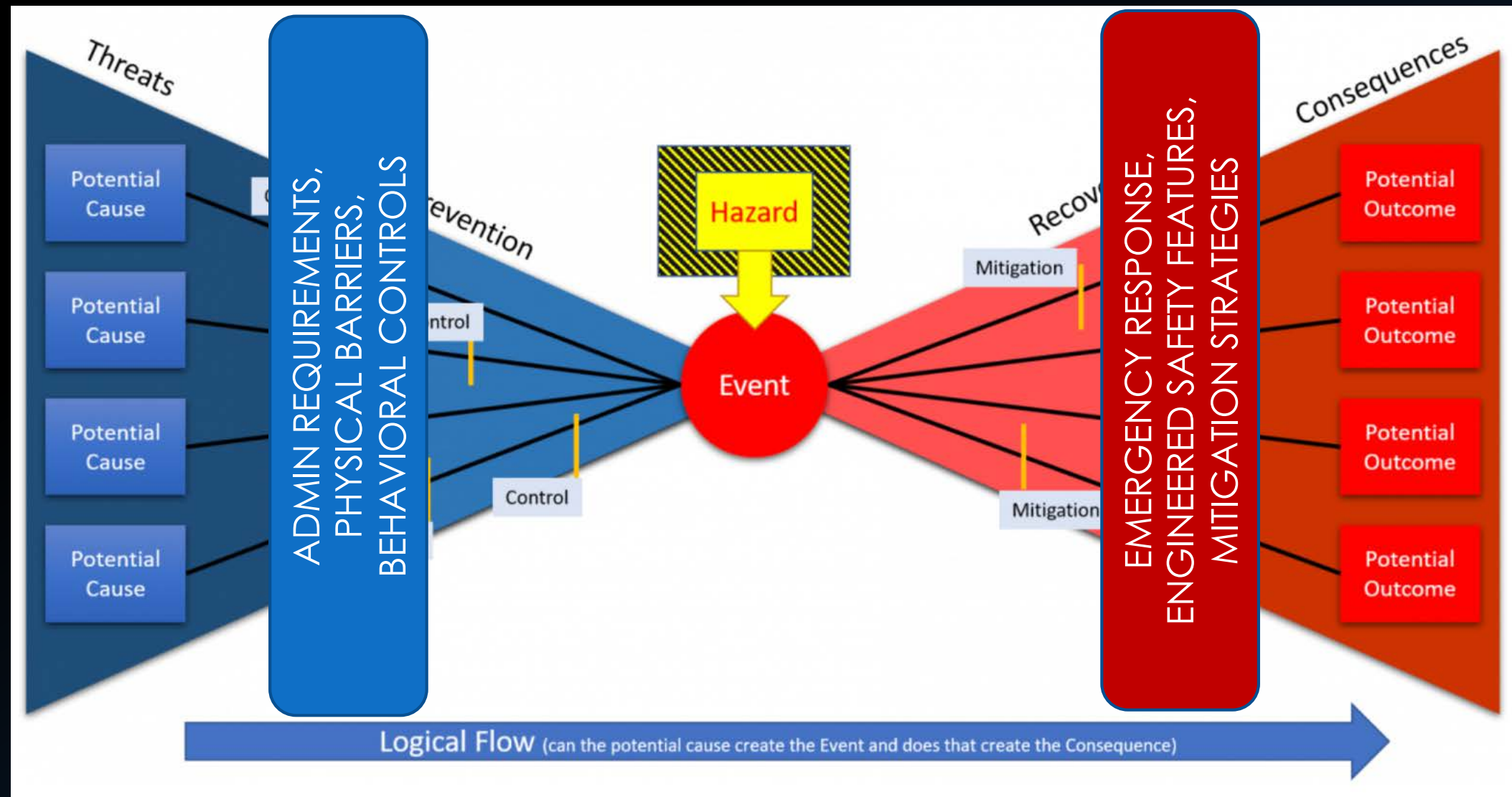
## Risk Management:

- The process of identifying, assessing and controlling potential risks and threats to an organization's capital and earnings.
- These threats or risks could stem from strategic management errors, accidents, cyber attacks, natural disasters, etc.
- Policies and procedures are put in place to monitor, avoid or minimize the probability or impact of unfortunate events.





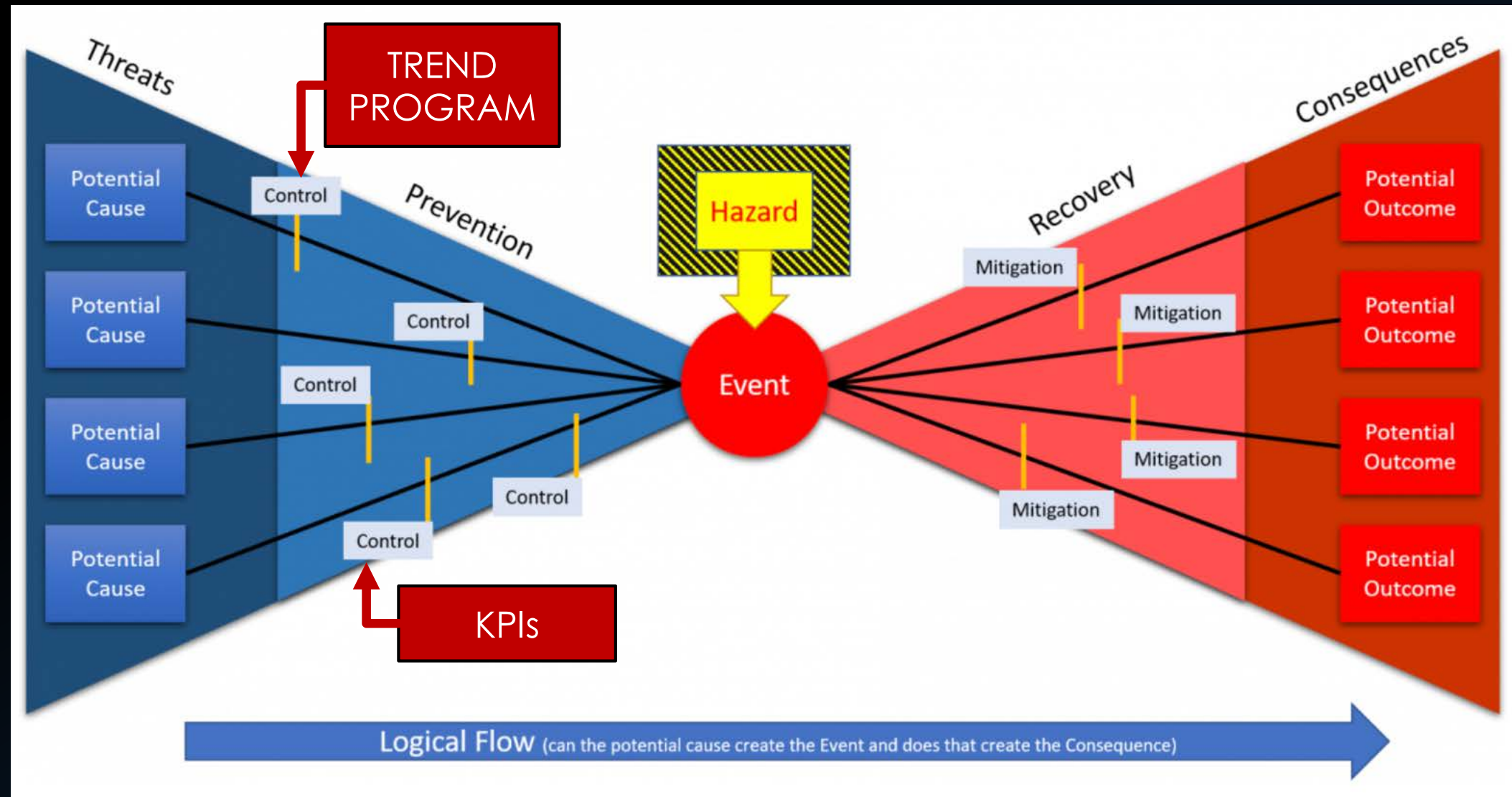
## Bow Tie Analysis Model for Assessing Risks





# HCA in Risk Management Systems

Used proactively, Bluedragon HCA can ID latent weaknesses before they cause events

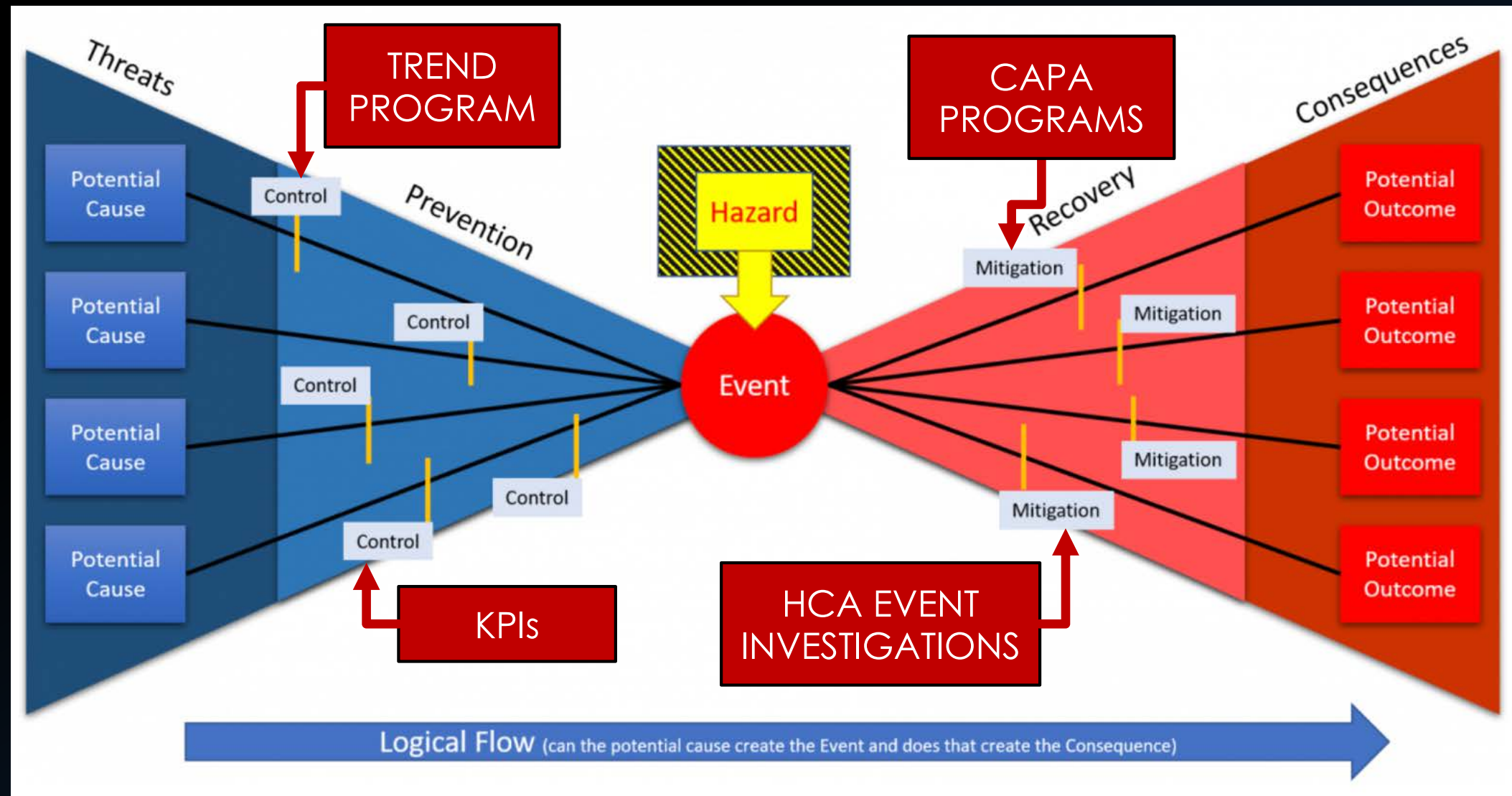






# HCA in Risk Management Systems

Used reactively, Bluedragon HCA can quickly and accurately ID the latent weaknesses that caused the events





## Limitations of Risk Assessment Models:

- Traditional methods like the Bow Tie Model and FMEA rely on a finite list of possible risks and causes.
- Traditional methods have done little to stem the tide of recurring events.
- Human-centric problems have infinite number of variables and possible causes, requiring a more rigorous methodology like HCA to analyze.





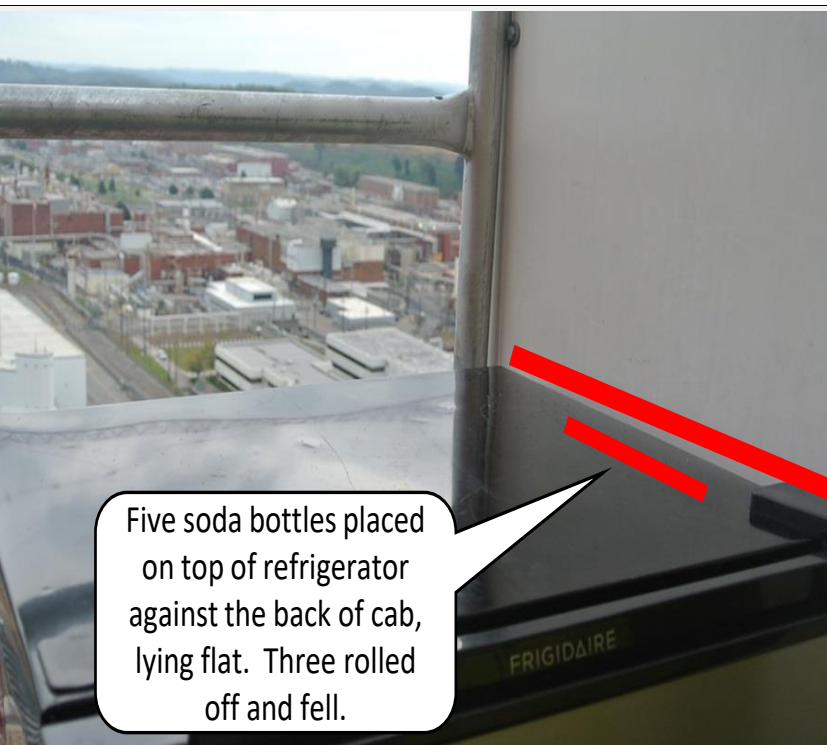
# HCA in Risk Management Systems

## Preventive HCA:

HCA was used to address a high-risk situation; a negative trend of dropped objects from 300 feet during construction of the UPF at ORNL.



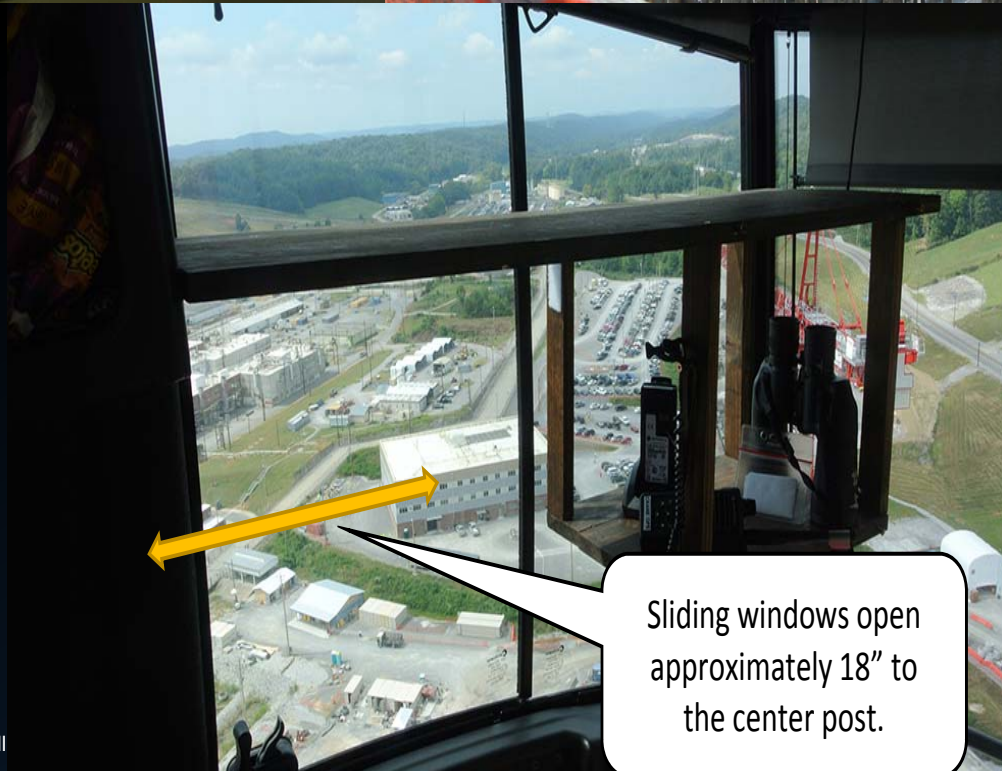




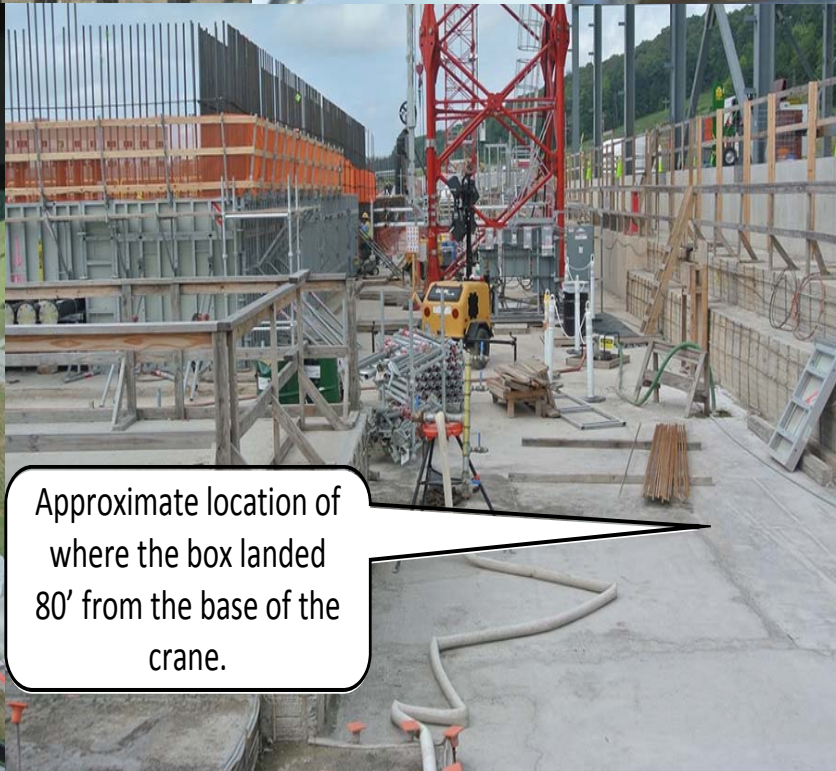
Five soda bottles placed on top of refrigerator against the back of cab, lying flat. Three rolled off and fell.



Two soda bottles hit top of cool down tent and broke through the fabric. Third bottle hit the tent structure and did not fall to ground.



Sliding windows open approximately 18" to the center post.



Approximate location of where the box landed 80' from the base of the crane.





## Details:

- 30+ procedures/requirements
- 60+ lines of inquiry
- 8 causal analysis sessions
- 50+ SMEs were interviewed from 15 organizations

## Level of Effort:

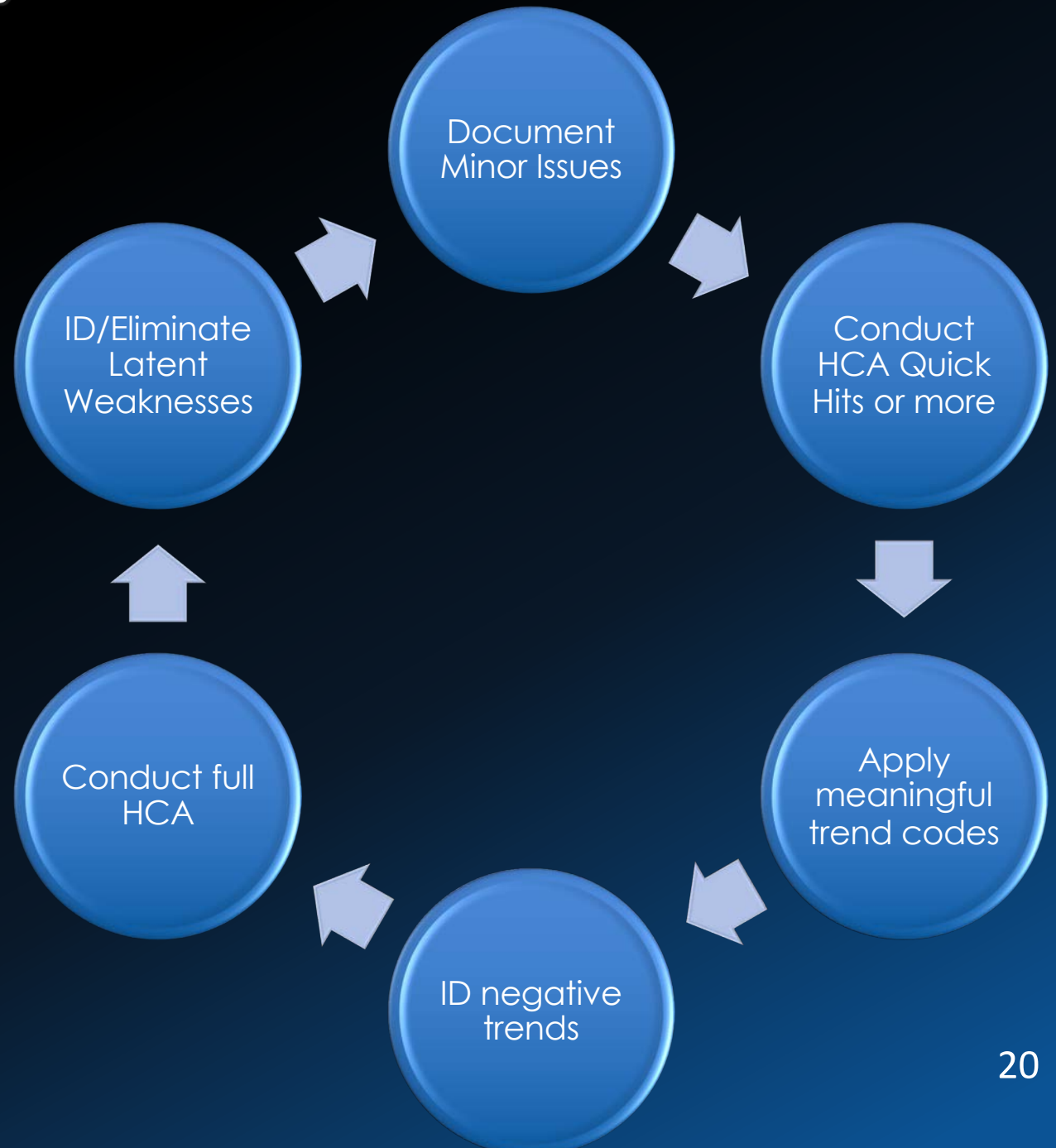
- 4 RCA team members
- No SMEs on the team
- **3.5 days** to complete the analysis



# HCA in Risk Management Systems

## Preventive use of HCA in a Risk Management System:

- Shift your human-centric problem-solving efforts from reactive to proactive.
- Use HCA for selected SL-C and B investigations to identify as many latent weaknesses as possible.
- Trend the causes and identify negative trends, allowing us to ID latent weaknesses before they can cause bigger issues.







# HCA in Risk Management Systems

## BlueDragon HCA in a Risk Management System:



BlueDragon HCA is integral to Risk Management and is most effective when used as a preventive measure in conjunction with trending and analysis programs. It is also the most effective method to identify latent weaknesses after an event.





### What you can you do right now:

- Review your Risk Management Guidelines.
- Evaluate the **preventive** measures and determine if the use of HCA for lower-level events can be used to provide better trend codes for the trending and analysis program.
- Evaluate **mitigation strategies** and determine if your organization is taking advantage of incidents and other events to identify as many latent weaknesses as possible using BlueDragon HCA.



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# BlueDragon Nation Monthly Forum Q&A



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