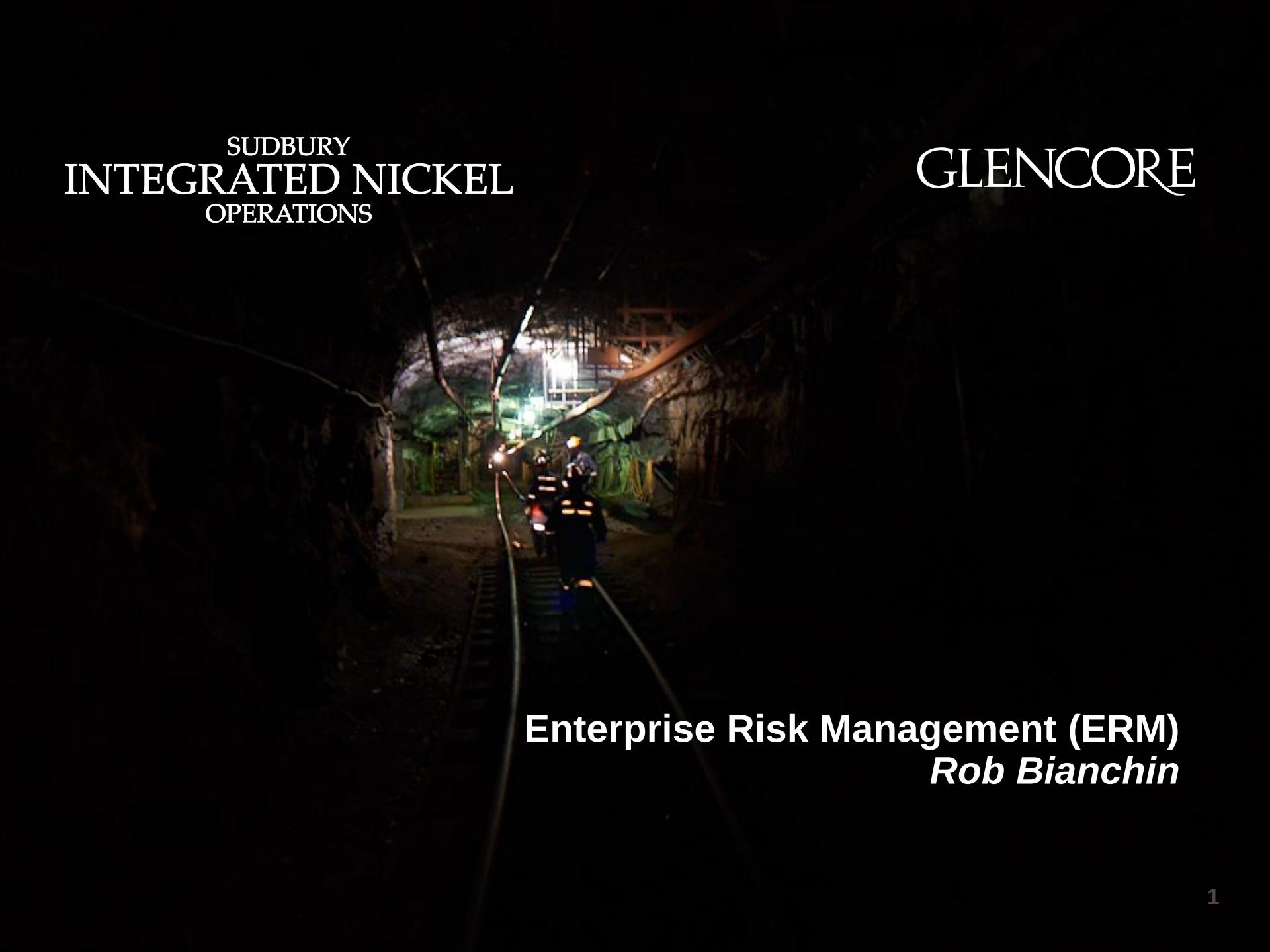
SUDBURY
INTEGRATED NICKEL
OPERATIONS

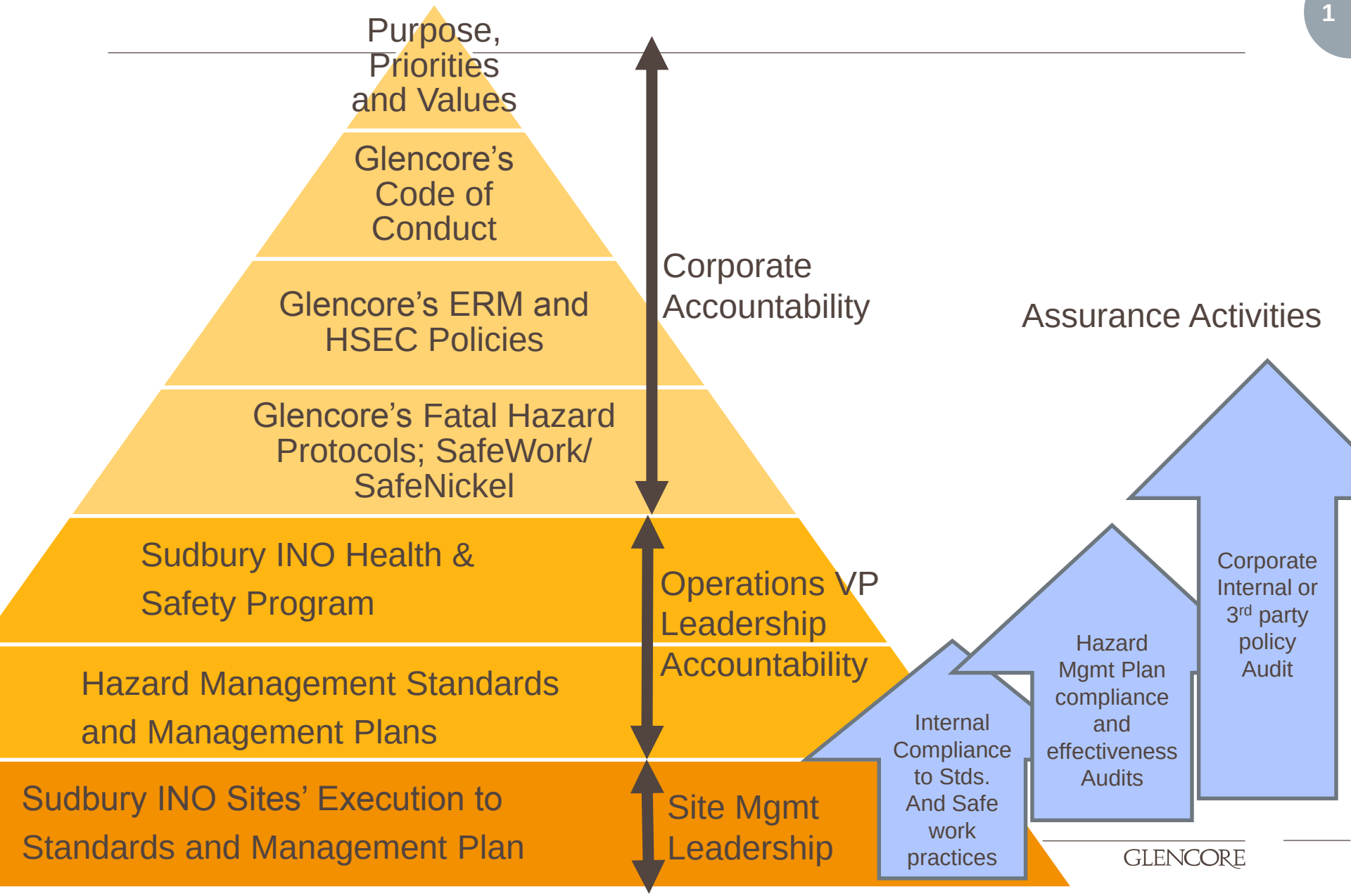
GLENCORE



Enterprise Risk Management (ERM)

Rob Bianchin

Hierarchy of Governance and Assurance



Risk Management Operationalized (simplified view)

Identification of Operations Objectives/ Goals

Identify and treat risks to achieve Objectives (including material unwanted events – catastrophic/ Severe)

Integrated methodology to identify Risks continuously (Prescribed Risks Assessments / MOC process)

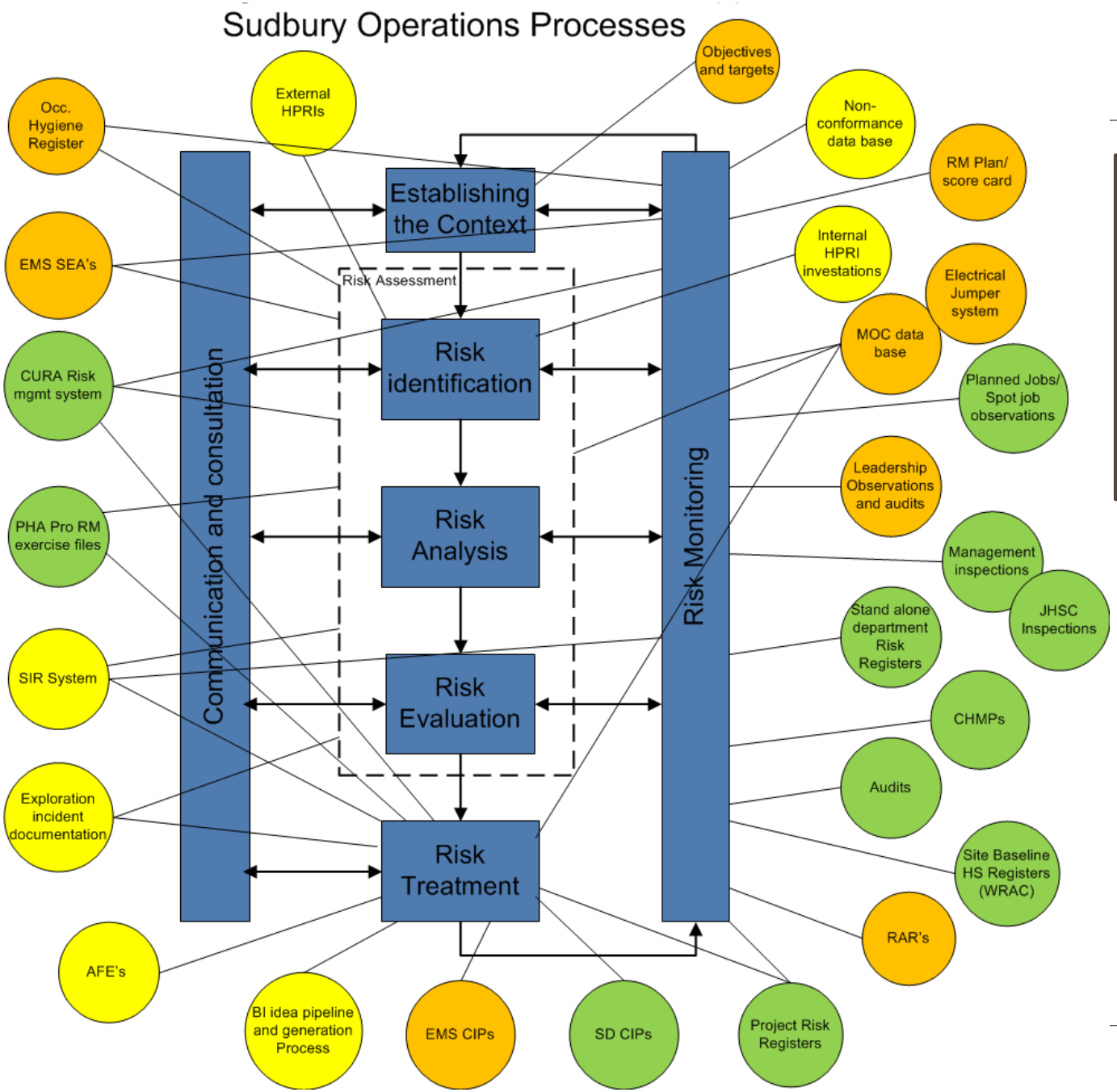
Continuous monitoring to verify completion of risk treatment actions, and on-going effectiveness of controls for material unwanted events

Improvement of identified control gaps or weakness

Operationalizing:

- integrating/ placing responsibility for relevant tasks at the appropriate level of the organization;
- monitoring compliance and effectiveness of the task execution;
- taking action on findings.

Success: capacity to self identify and treat our risks, and self - identify and correct weaknesses in our risk controls



Phased approach to consolidate process and operationalize Risk Management

Phase 1

Phase 2

Phase 3

- Four Layered Model:
- Hazard Mgmt plans
- Standards
- Equipment Specifications
- Controls - Policy, Procedures, Practices

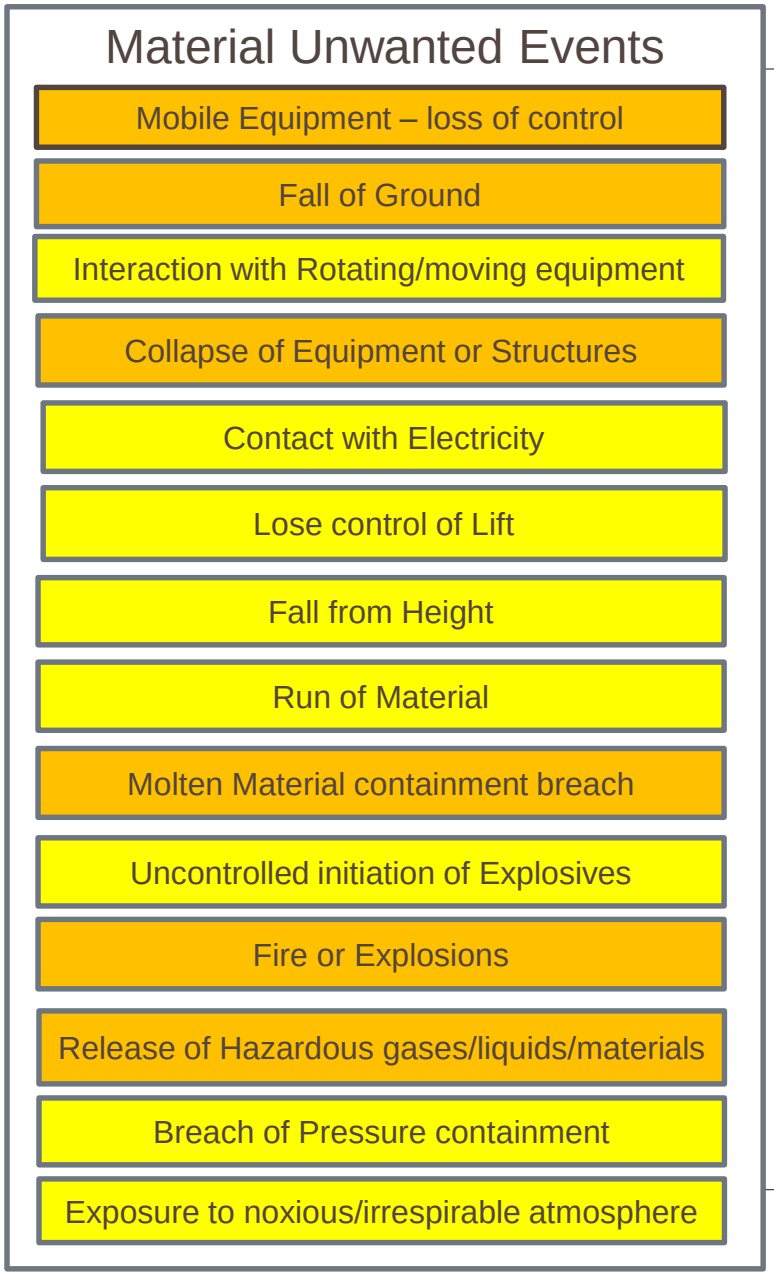
- Baseline Risk Assessments
- Job Safety Analysis
  - Work Permit
  - Pre-task assessments
  - Management of Change
  - Business Improvement/ Engineering Projects



- Stop & correct
- Address systemic issues
- Update SOPs/ work practices/ training
- Update Specifications and Standards

- **Capture non-conformance/ near misses**
- Pre-task Audit
- Safety Interactions
- Job Observations
- **Layered Audits**
- **Accident Investigation**
- **Engineering inspections**
- **Maintenance inspections**
- **Management Process audits**
- **Management Monitoring and Review**

Link between Leadership and Hazard Management?



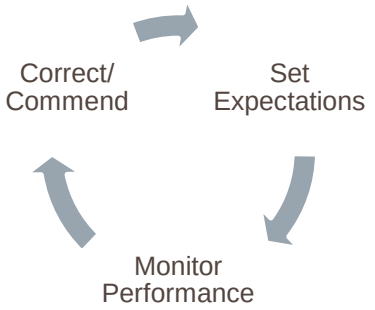
Reality:

- A major failure of Leadership will contribute to any of the Material Unwanted Events – 'MUEs'
- Major Incident investigations confirm this ('failure of the management system')
- Failure of leadership is considered a Material Unwanted Condition.
- Leadership is an 'Act', therefore considered a control for effectiveness each hazard management plan.

Imperative to have aligned leadership support behind your management process.

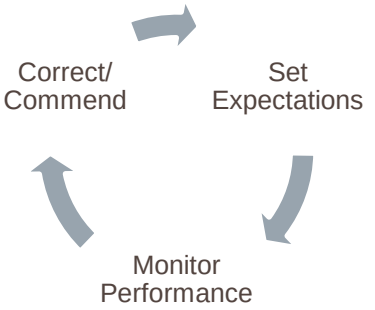
Organization Leadership

Management



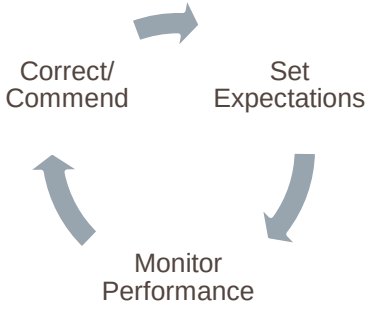
- Set Performance Standards
- Mandate RM Integration Plan and Management Systems
- Monitor Performance
- Monitor Improvement activities
- Develop Mid Mgmt Competency

Mid Management



- Adhere to Performance Standards
- Conform with Management Systems
- Monitor Department Performance
- Hazard Control Improvement activities
- Develop Supervisor Competency

First Line Supervisors



- Set Expectation to Safe Work Practices
- Comply with Management System
- Monitor Crew Safe Work Execution
- Safe work practice Improvements
- Develop Workforce Competency

Hierarchy of Verification Activities

Regular monthly review of hazard control performance and progress on management system development

1

Audit protocol as per FHP, Stds, and RM Process

Defining site management monthly performance monitoring

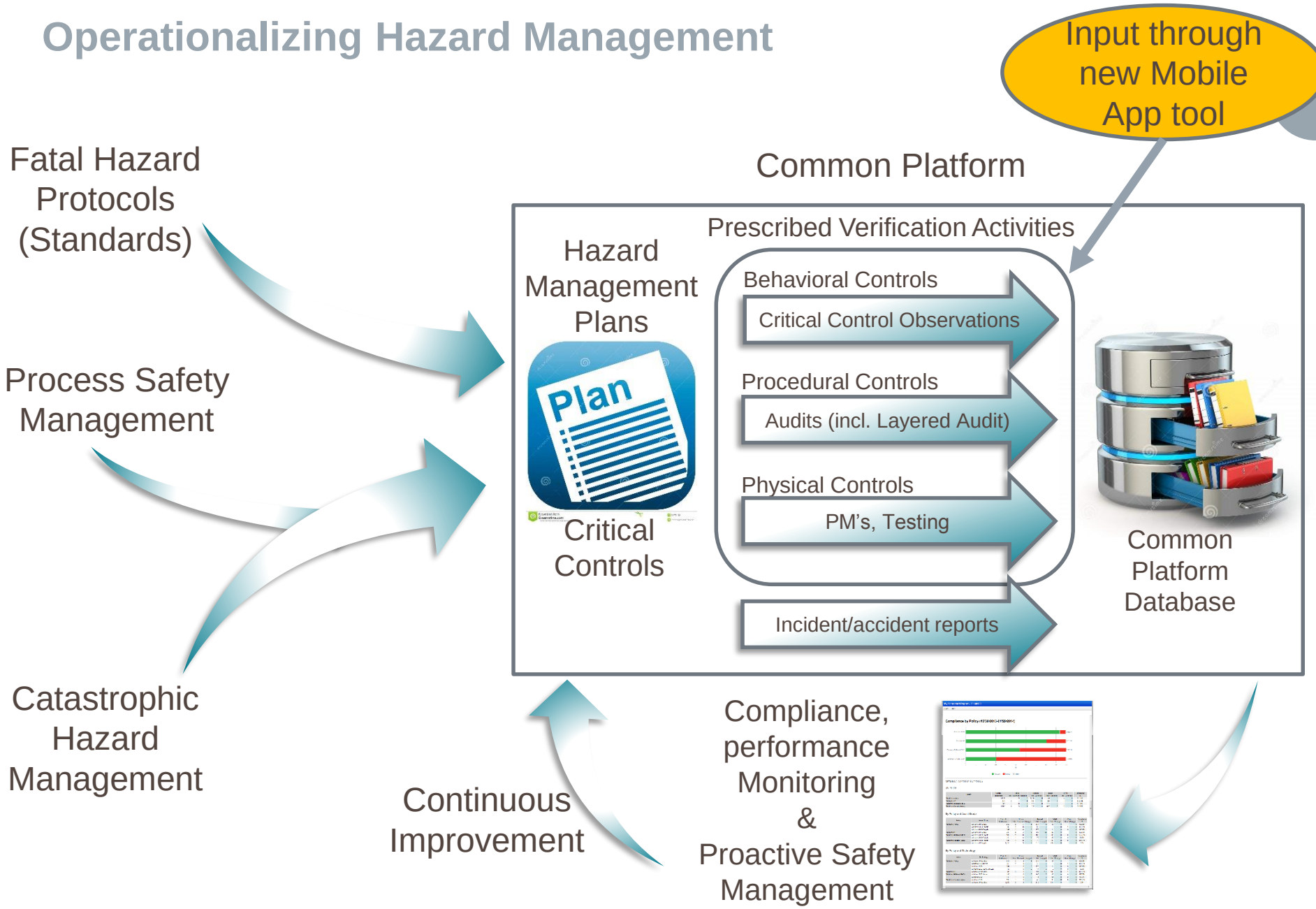
Prescribed audit defines control verification protocol

Behaviour criteria not yet defined

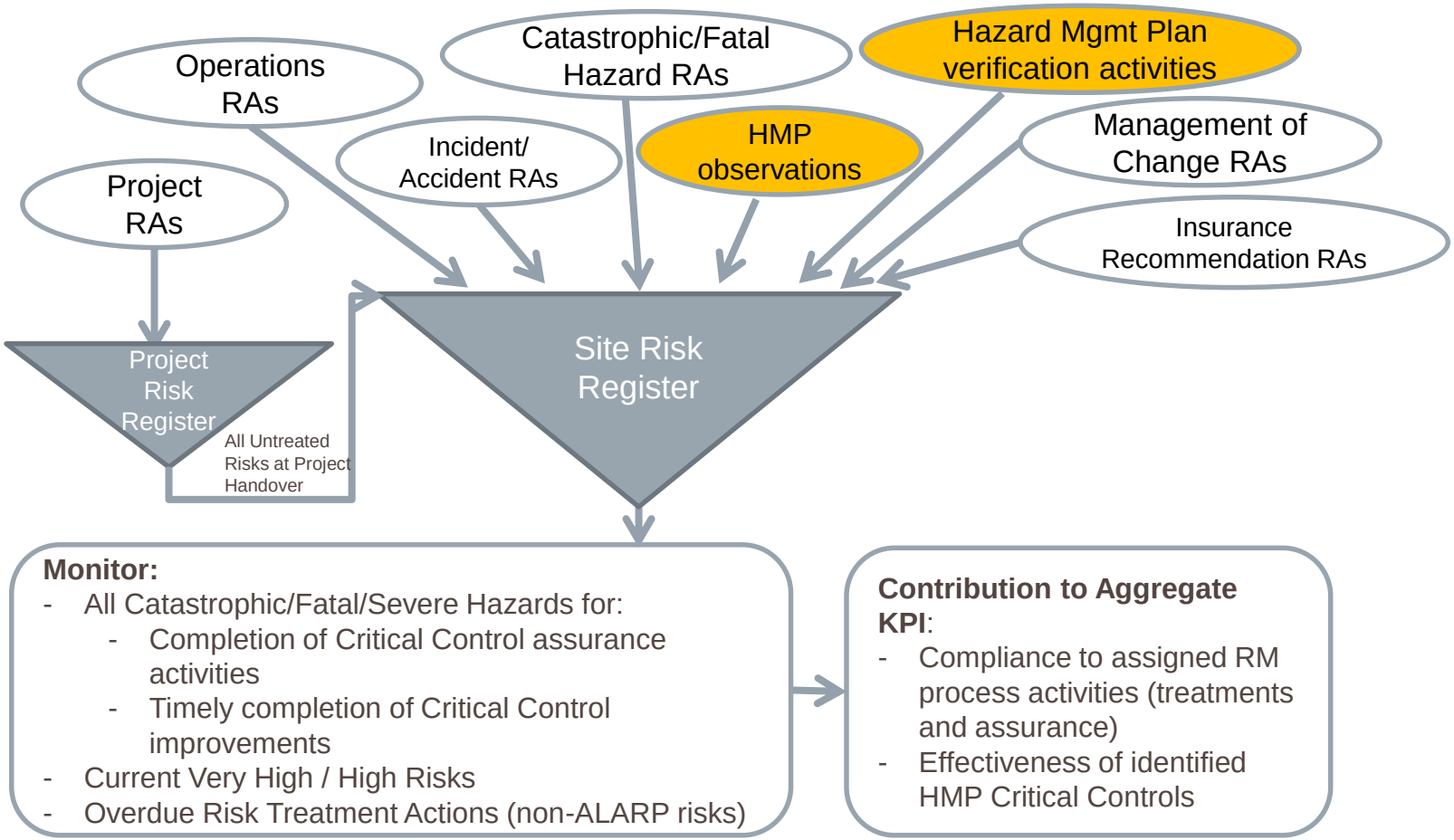
Behaviour criteria defined in Supervisor competency card

- **Sudbury INO VP**
  - Review Overall Process/ System effectiveness
- **Safety and Risk Leads/ Specialists**
  - Hazard management plan audits checking compliance to Hazard standards and process
  - Annual review of HMP findings and effectiveness with management teams
  - Initiate improvement plans to address HMP process weaknesses or OFIs
- **Site Management Team (Monthly):**
  - Review of complied and analyzed incident and verification activities (compliance and findings)
    - » Identify weaknesses in all controls, increasing trends, decreasing trends following risk treatment actions
    - » Initiate investigation actions to understand root cause of failed or weak controls, and develop appropriate treatment action to address.
- **Technical Specialists:**
  - Technical Audit of engineering and process controls
  - Audit adherence to Engineering Standards, Process controls
  - Hazard Control Training Effectiveness
- **Second line and Management:**
  - Supervisor competency observation and assessment (Safety interaction and hazard observations)
  - Capture non-conformance / near miss (safe work practices/ unsafe condition of infrastructure)
  - Review of Supervisors observation findings
- **Supervisors:**
  - Hazard Observations – verification of safe work practices
  - Safety Interactions
  - Capture of non-conformance/ near miss.

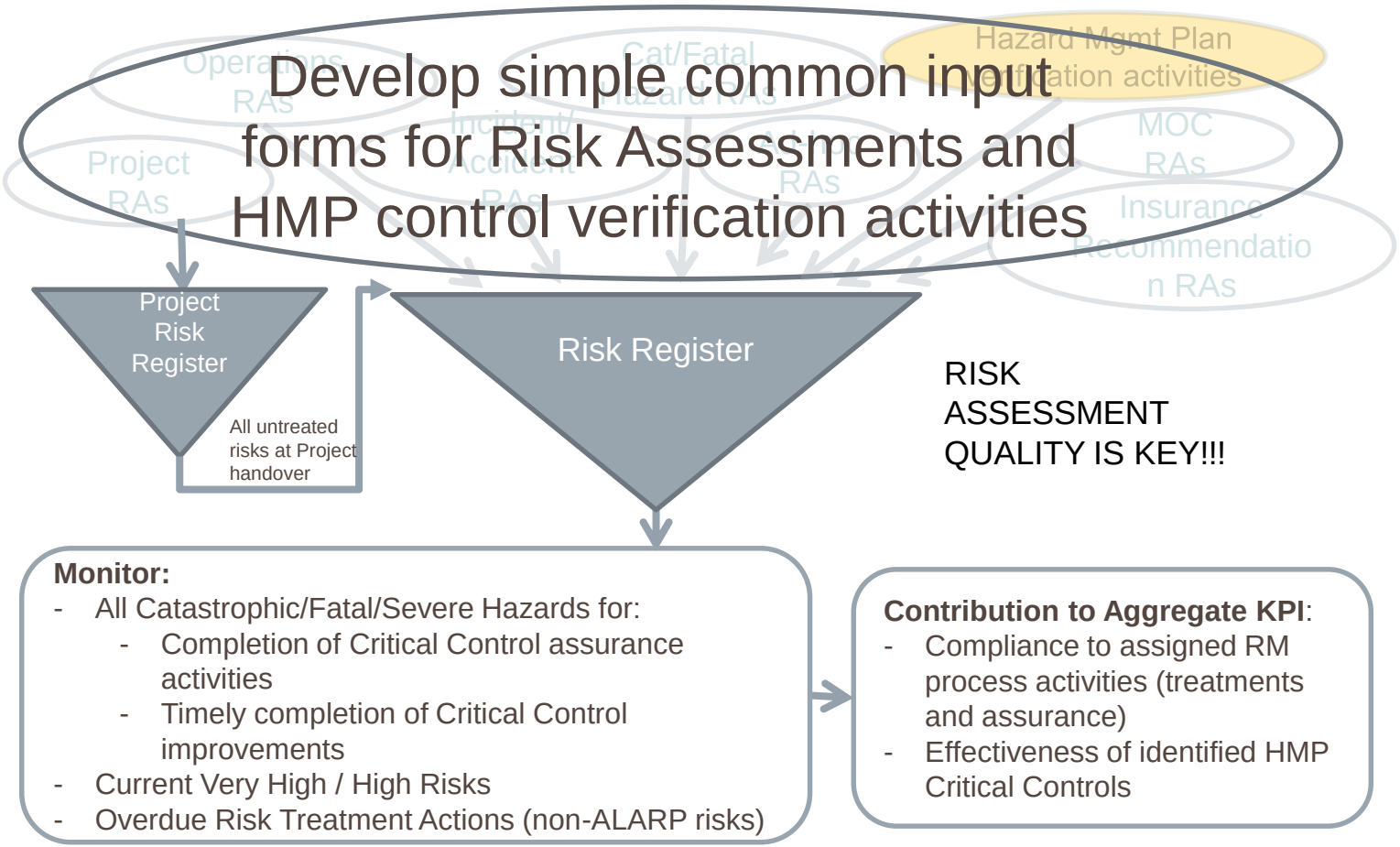
Operationalizing Hazard Management



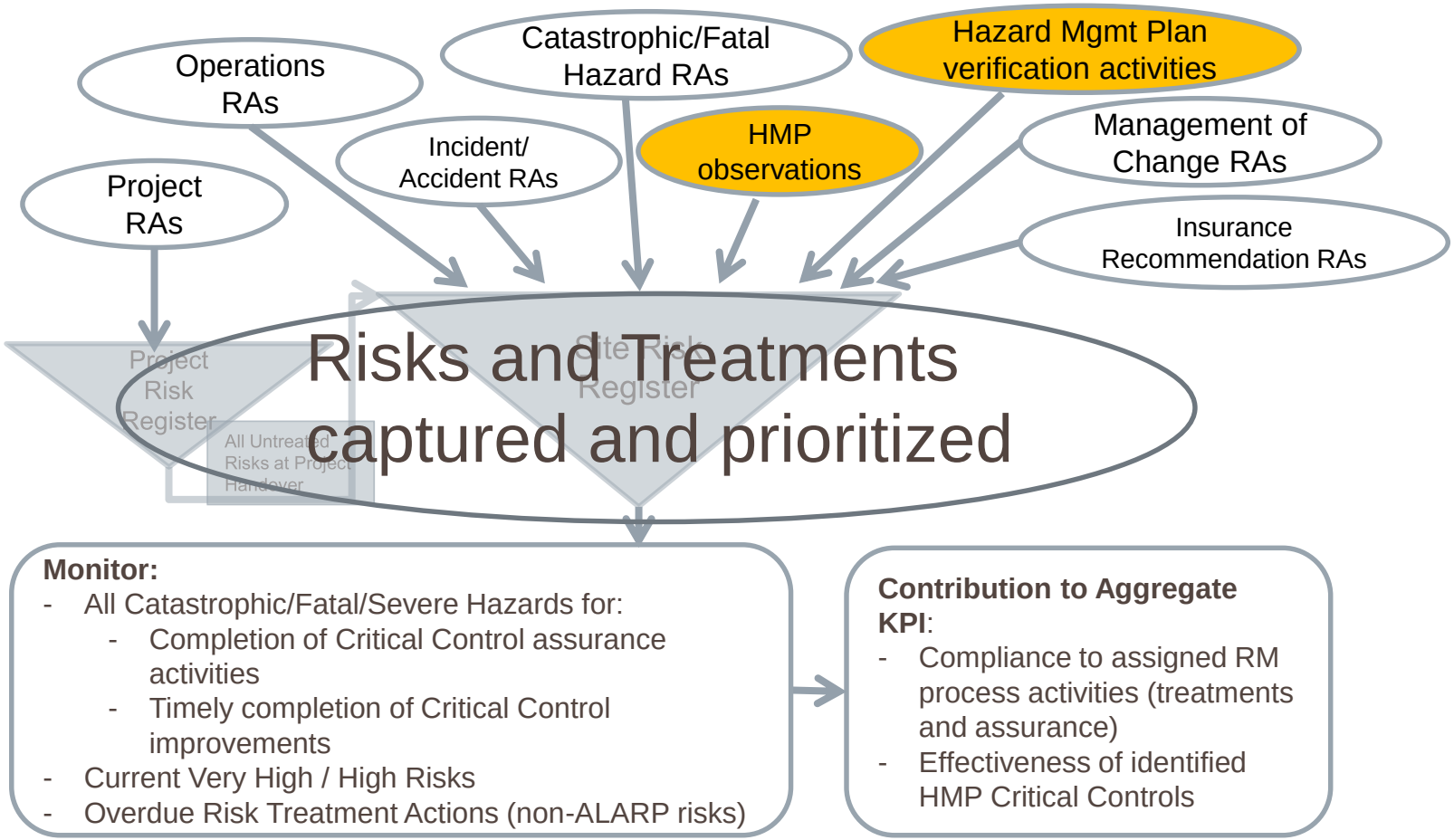
Operationalising ERM: The Site Risk Register



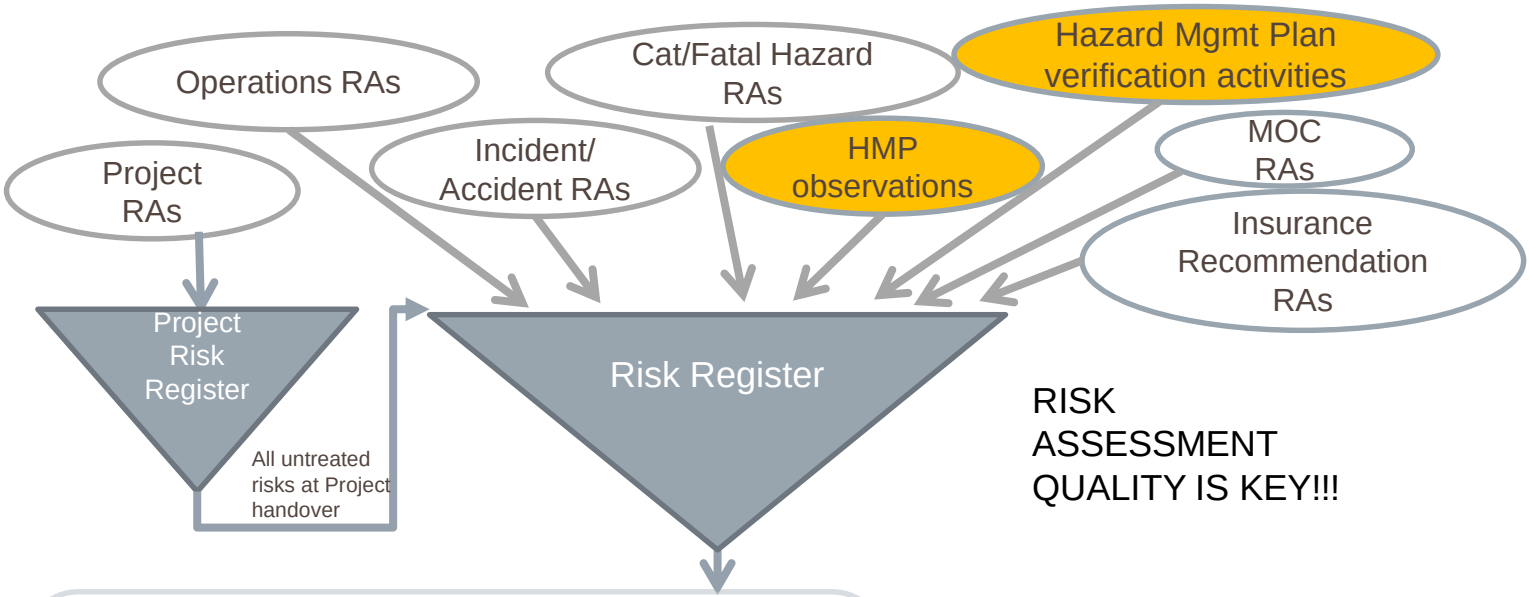
Operationalising ERM: The Site Risk Register



Operationalising ERM: The Site Risk Register



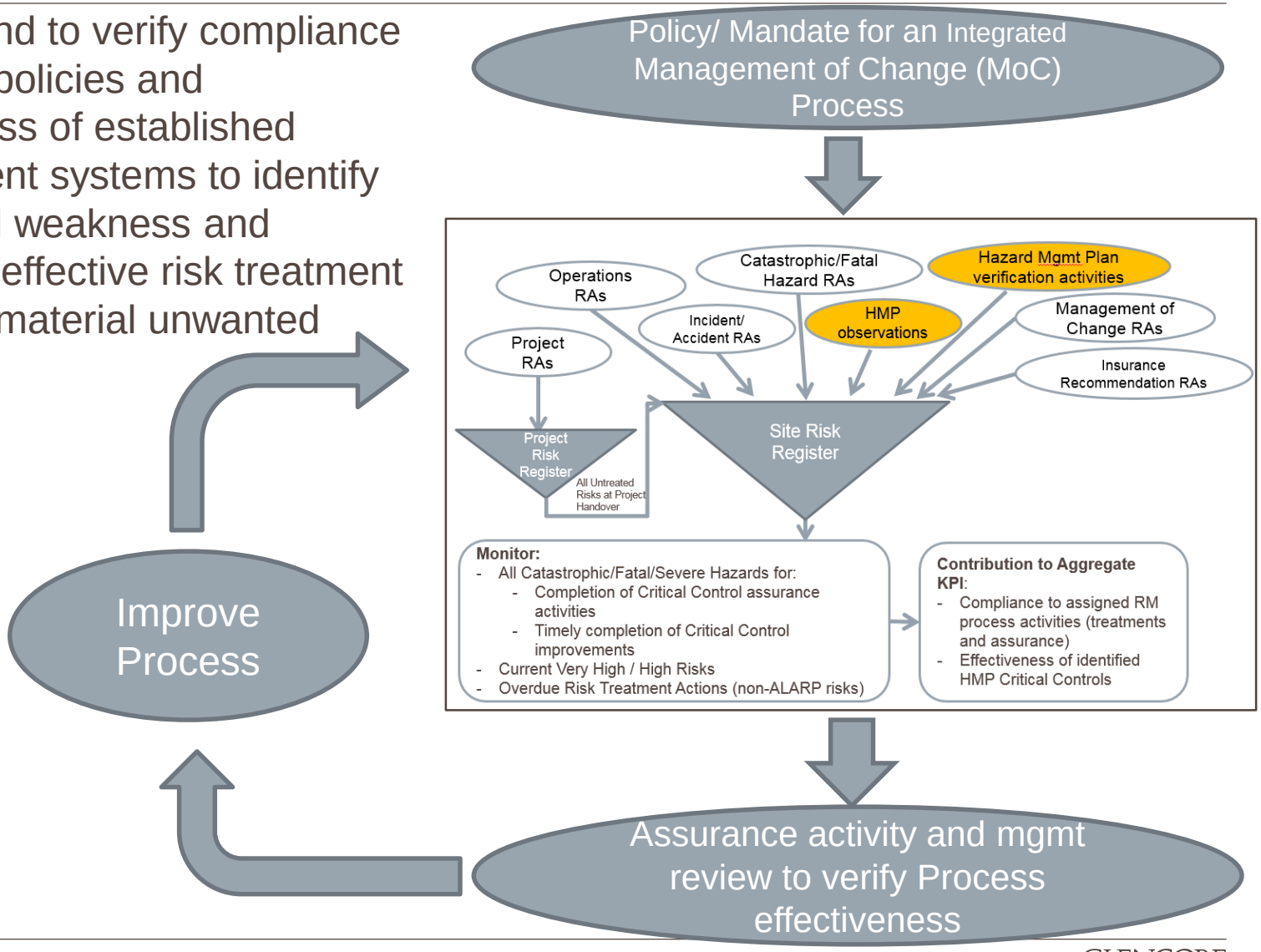
Operationalising ERM: The Site Risk Register

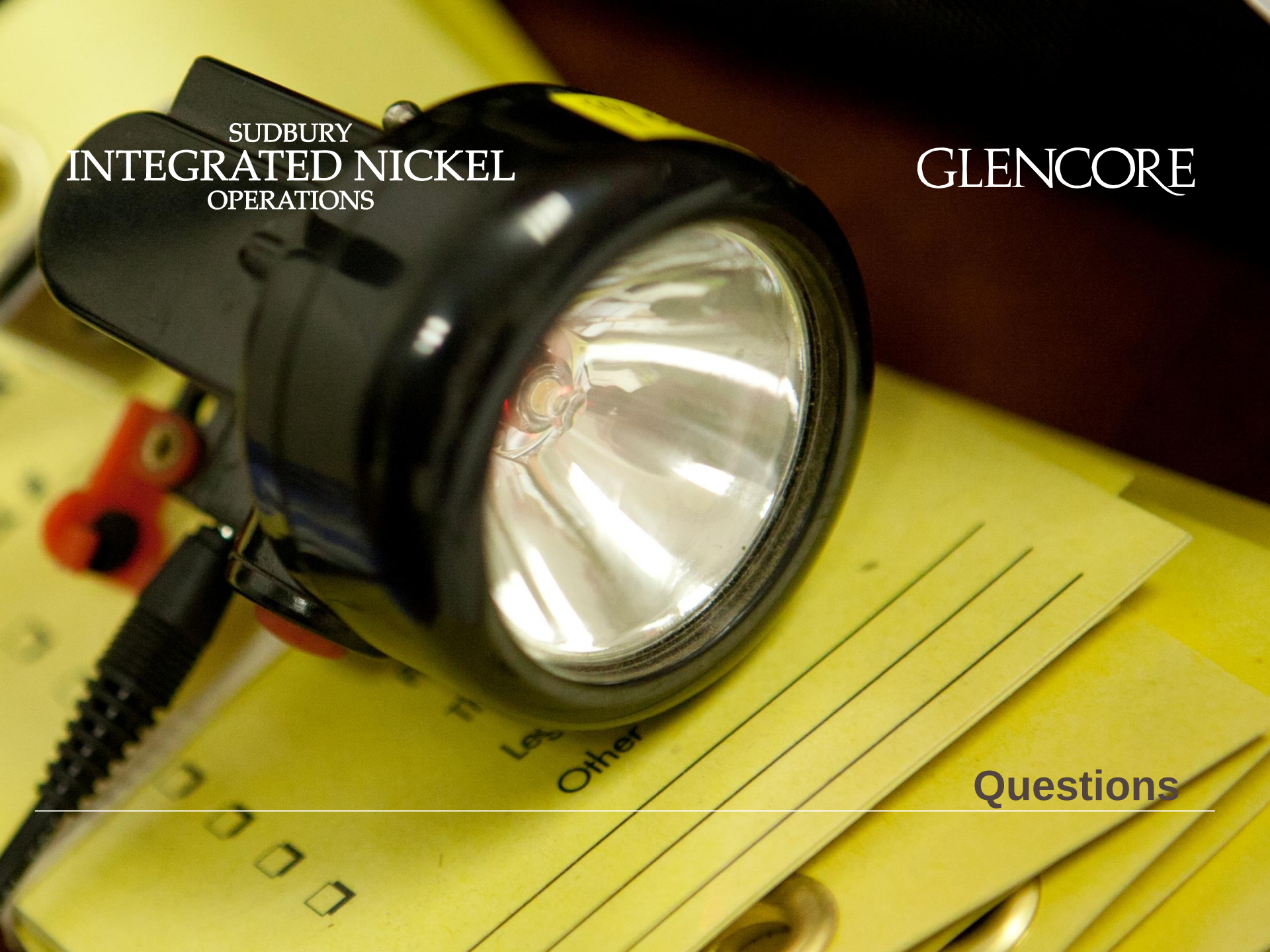


Develop easily accessible Dashboards for monitoring and review of performance

Auditing ERM

Audits intend to verify compliance to defined policies and effectiveness of established Management systems to identify operational weakness and implement effective risk treatment to prevent material unwanted events





Questions