Risk Mentor

Version 2.1
Limited Distribution

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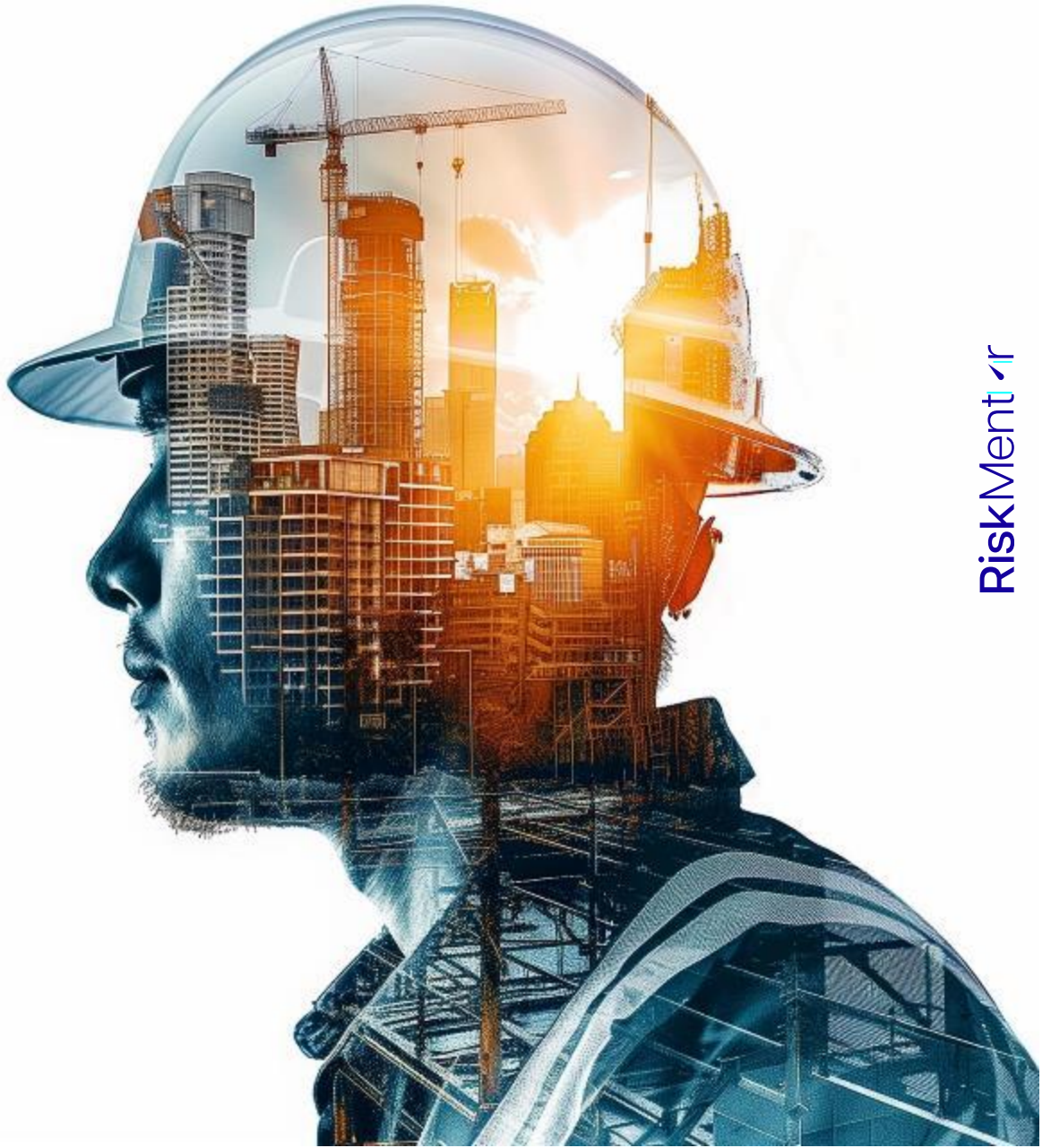
July 2025

Delivering Performance Improvements with People Centric Intelligent Solutions

Introducing Risk Mentor

- We have assisted clients with their critical risk and control and workflow digitization journeys since 2016
- We provide content, consulting, and technology platforms to develop *foundational data assets* that report to multiple *decision intelligence products*.
- We are a team of experienced consultants supported by a highly skilled technical team
- RM is an Australian headquartered company that works with multi-sector clients globally



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About Risk Mentor

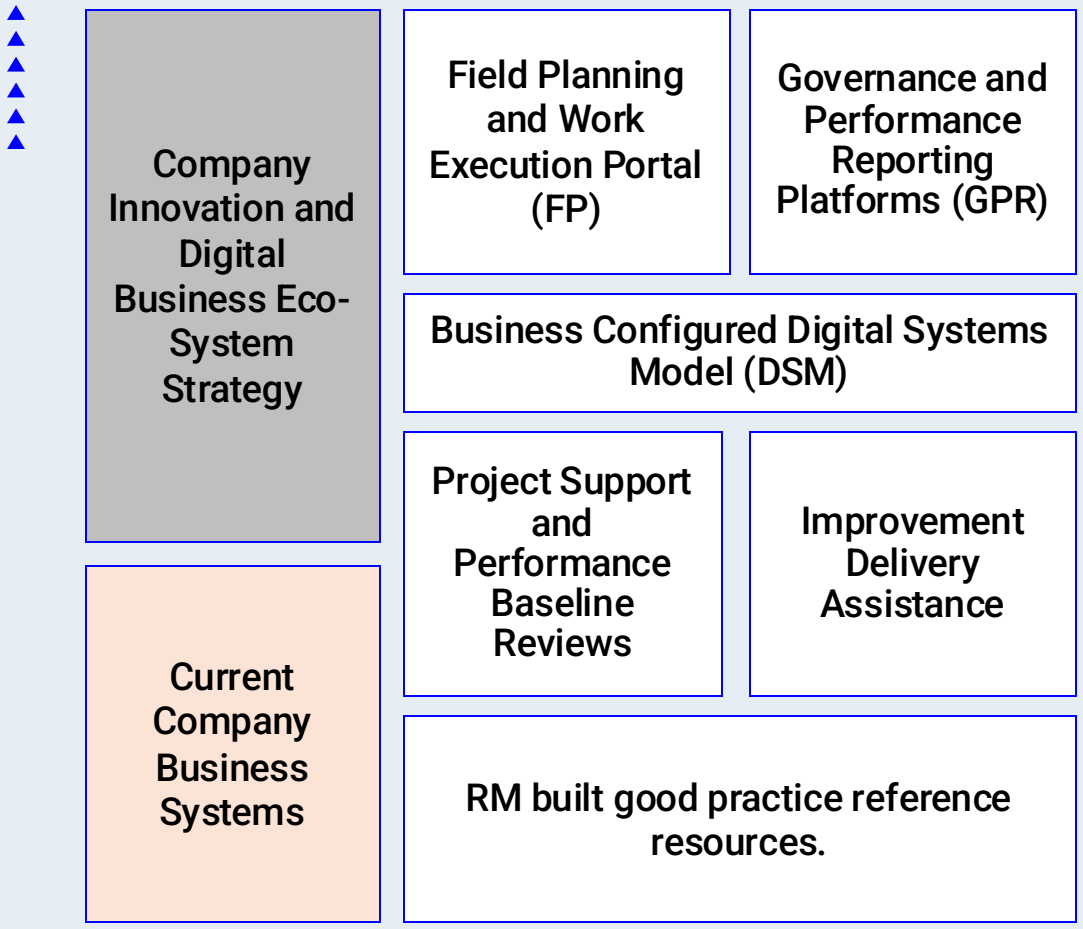
Risk Mentor (RM) is a content, consulting and technology platform company that assists clients to innovate and outcompete by:

- Benchmarking current performance against industry validated good practice.
- Consolidating unstructured data – processes, documents, legacy system outputs, personnel experience, sector and legislative requirements into *foundational data assets*.
- Systematically address gaps and operationally integrating enhancements
- Co-creating digital workflows that capture high integrity and contextual information for ground-up innovation and performance improvements
- Supporting decision makers at all levels with *decision intelligence products*

Our multi-sector clients operate across utilities, underground and surface mining, minerals processing, and logistics in New Zealand, Australia, Asia, Southern Africa, and North America.

Our growing good practice resources include; electrical power distribution, mine site vehicle interactions, environmental planning and remediation, tailings storage, fire prevention and mitigation, tyre and rim management, fitness for work, and hazardous energy management covering machine, electrical, gravitational, physical, and chemical.

The Risk Mentor Client Value Stack



Respect | Connect | Expect

RISK MENTOR

Mission + Strategy

The Risk Mentor Mission

Partner with clients to create the wisdom that improves decision making from the frontline to the boardroom.

Company Strategy

Sell, adapt, deploy, improve, and scale the RM services and products that assist our partner clients to innovate and outcompete.

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Risk Mentor New Zealand

PowerNet

+ Engaged workforce

Using the Control Framework Architecture, Risk Mentor NZ worked directly with experienced personnel to identify pathways to fatal events. Outputs were then reviewed, updated, and validated across the company.

+ Digitised operations

Supported by Risk Mentor digital platforms, PowerNet now consistently controls operational risks by providing timely and relevant information to decision makers at all levels.

+ Enhanced performance

The capacity for work teams to self-monitor and record that tasks steps are completed to standard has delivered ground-up performance improvements. Accurate and contextual task execution information is used to continually improve business processes.

The PowerNet Journey

Critical Risk and Control Improvement

PowerNet Critical Risks

- Electricity (3) - isolation (outages), insulation (live work), and MADs (safe distances)
- Working at height (ladders, MEWPs, scaffolds, trees)
- Travel (3) - on road, off road, movements around site (vehicle and plant movement)
- Lifting and manoeuvring loads (cranes, forklifts, stored energy)
- Tree maintenance work (arborist activities)
- Confined spaces (reducing risk as sites are removed)
- Helicopters (low frequency occurrence, but high risk)
- Explosives (Contractors)
- Long term health effects (herbicides, solvents, silica dust, asbestos, noise, manual handling, stress, fatigue, etc.)

External Review

Key Recommendation:

"PowerNet should base its design thinking for all improvement steps around improving the reliability and practical implementation of known operational controls."

1

Workshops

Key personnel identify pathways to fatal events Development of a Control Framework (CFw).

2

(Critical) Control Framework Validation

Content validation workshops across PowerNet
Ongoing PowerNet Board progress briefings.
PowerNet Obligations Mapping

3

Pathway to Digitisation

Field personnel confirm operating requirements and co-develop digital workflows.
Legacy System data links.
Off-line user data capture.
Knowledge and Performance Reporting Platform

4

Pilot and Trials

Key workgroups selected to pilot and trial the application

5

Operational Deployment

Rollout led by Project Team with user interface training

6

Integration and Enhancement

Ongoing upgrades to digital workflows and reporting platform
Report analysis tools, active compliance reporting.
Control drift monitoring
Business process optimisation

Partner Client Journey from 2025

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The PowerNet Control Framework Digital Backbone

Operational digitisation with a focus on **Critical Control** deployment

Required Operating States

13

Aligned with company mission critical risks, and incident experience

Obligations and Assurance

1,490 +

Company and external requirements mapped and monitored

Business Inputs

150 +

Required for safe and productive electrical power distribution

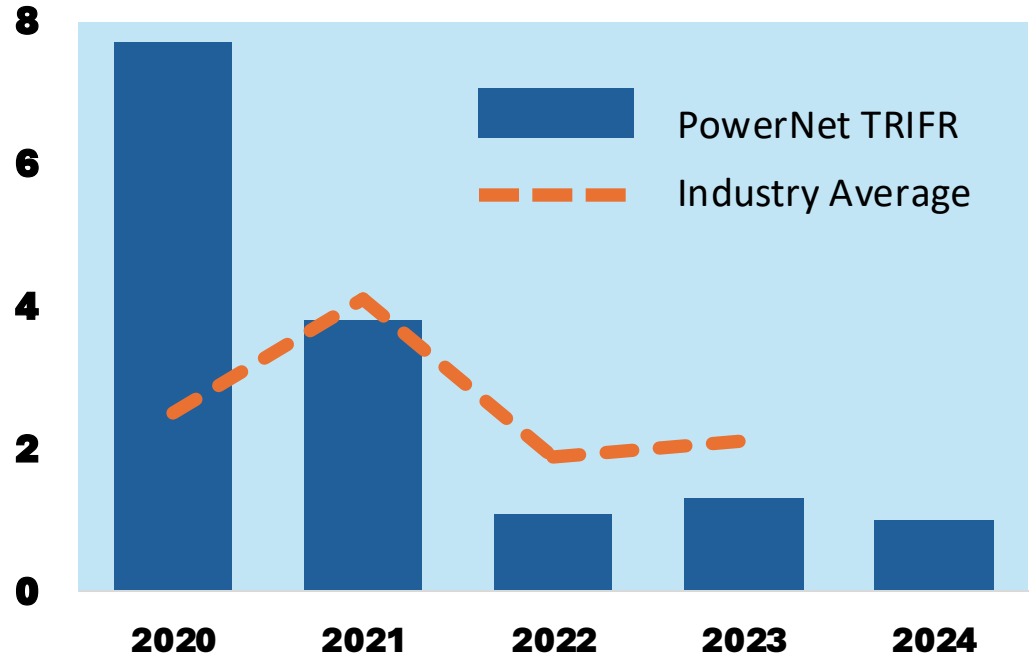
Digital Workflow Templates

45 +

Developed, piloted, and implemented with sub-forms

Total Incident Frequency Rate Performance 2020-2023

An **80% sustained decrease** after RM Platform implementation



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Over the last eight years, in collaboration with the ICMM, EMESRT and multiple resource industry clients, Risk Mentor has developed the content and processes used globally to undertake Vehicle Interaction Control Effectiveness (VICE) performance reviews.

Section 2

Resource Industry Context

Note: some slides are public domain resources developed for the ICMM Leading Sites Workshops by Risk Mentor. They are used with permission

The Compelling Case for the ICSV VI Leading Sites Strategy

- **Mining industry fatality experience - no organisation has got this right yet**
  - In 2018, the ICMM reported that 35% of industry fatalities from member companies occurred from operating mobile equipment or during transport
  - Of these about half are pedestrians
- **Regulator expectations – globally and particularly in South Africa**
- **Understanding and implementing collision avoidance system technology projects is complex**
- **Identified industry level opportunities**
  - Share experience and knowhow to develop a common and structured understanding of the issues and opportunities
  - Confirm **react** and other technology innovation opportunities that can be operationally integrated to improve or replace what we do now
  - Use common problem definitions and functional performance scenarios to assist OEM and third-party Proximity Detection System (PDS) designers to develop industry level solutions
  - Identify and share **design** and **operate** innovation opportunities that can improve what we do now

Leading Sites Programme **Capable Solution**

What is meant by a vehicle interaction '**Capable Solution**' ready for global market uptake?

- A **capable solution** delivers better vehicle interaction control performance by improving the quality of decision-making from task execution through to mine operations and design
- A **capable solution** considers relevant aspects of the operating environment, production requirements and equipment design
- Where technology is a part of a **capable solution**, it is operationally integrated with existing controls

Control Framework Architecture

- A pivot and a refocus based on answering:

  'What needs to be in place for our work to go right?'

- Builds from and incorporates existing knowhow and real-world experience
- Confirms Required Operating States from a business perspective

  'Safe and productive outcomes are delivered when …'

- Provides information in a style that works for end users :
  - *What is expected?*
  - *What are the performance specifications?*
  - *How are these operationally implemented?*
  - *How will performance effectiveness be measured and monitored?*

Applying Control Framework Architecture to Develop Person Centric Intelligent Solutions that Improve Performance.

- Aligns, rebalances, and operationally integrates existing risk management and other business systems investments
- Systematically identifies and sorts between what is required and what is clutter
- Structure that supports mapping external requirements for dynamic compliance outcomes
- Establishes the infrastructure for task workflow digitization
- Supports ground up performance by capturing and sorting field validated workgroup inputs.

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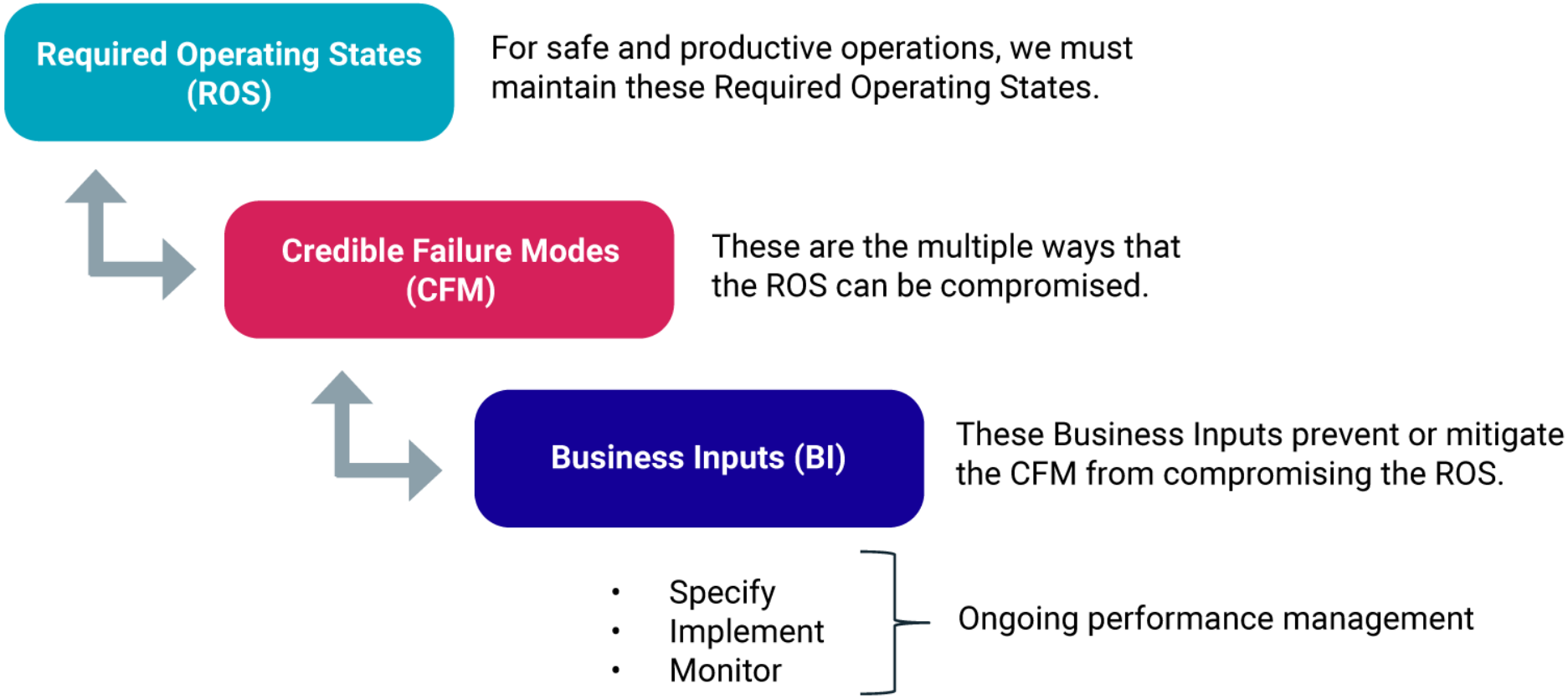
Control Framework Architecture - Hierarchy and Components



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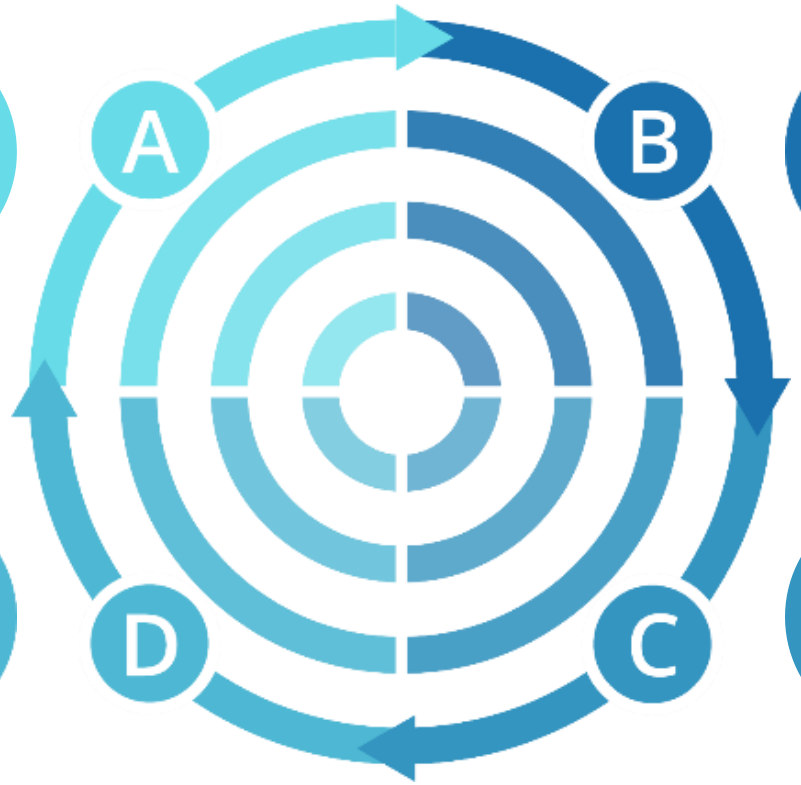
How the Performance Baseline Review Works

1. Map
(work as documented)

2. Operationally Validate
(work as done)

3. Return to Nameplate
(OFI to action plan)

4. Enhance VI Controls
(Capable Solution Enhancement)



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WHC Multi-Phase Vehicle Interaction Control Improvement Project WBS

A Work Breakdown Structure (WBS) breaks complex projects into smaller components called work packages.

This WBS has these component areas:

A. *Manage as a series of interrelated projects over 5 phases (ongoing Project Management)*

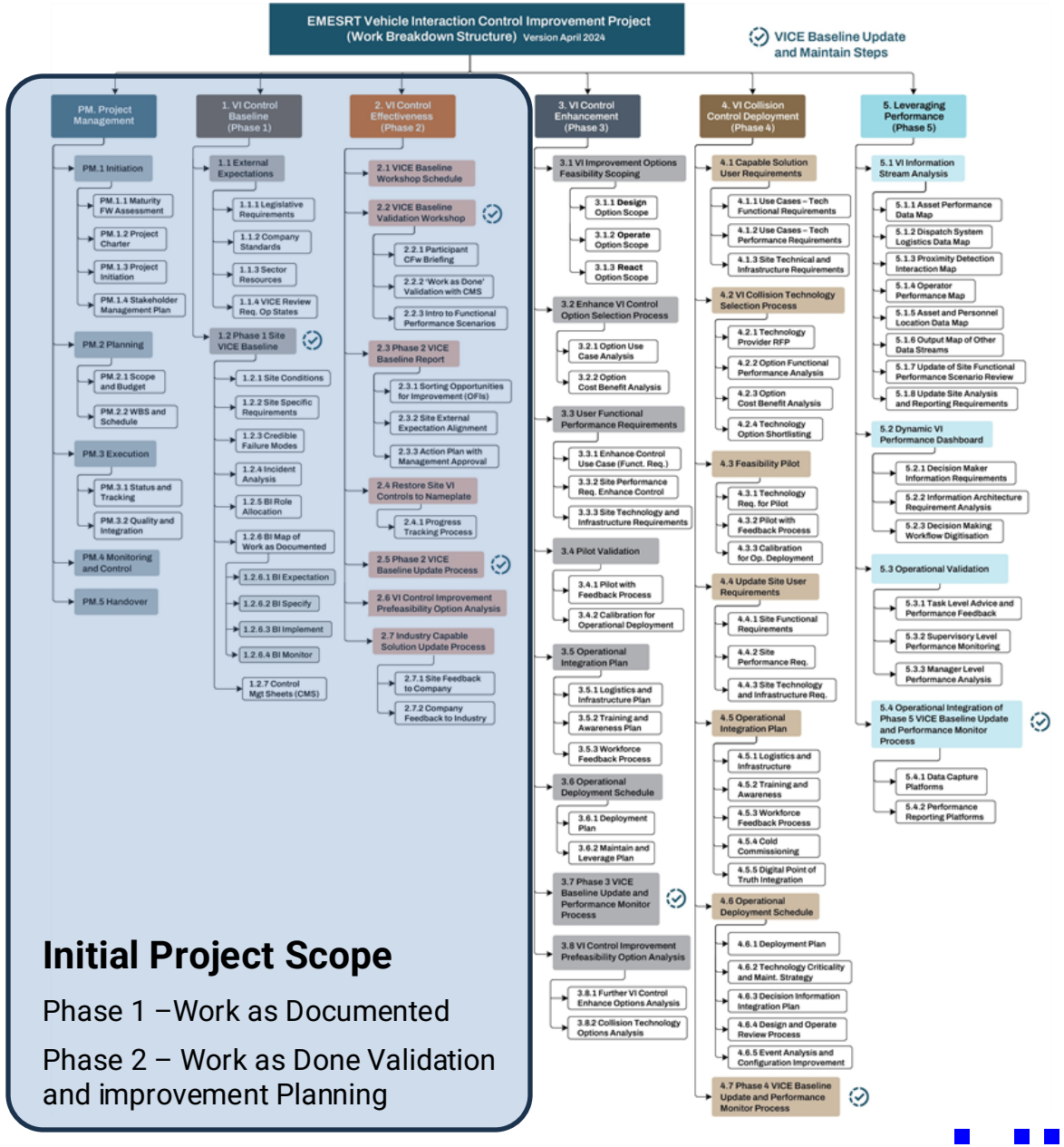
B. *Phases 1 and 2 Map and validate your Performance Baseline*

C. *Work with your people to identify existing operational improvements*

D. *Phase 3 - Identify and implement iterative design, operate, and technology innovations*

E. *Identify and implement - step change design and technology innovations*

F. *Fit the project into your broader site and company digital strategy. Leverage existing risk and business system investments, develop detailed performance reports, monitor for drift, and provide timely and accurate information that supports good decision making at multiple levels.*



Reviewing and Stabilizing Current Performance

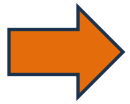
Senior Leader Questions and Issues

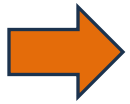
Questions

- Why are there misalignments between management systems and operational delivery?
- How well is my business, including contractors, really performing?
- What are the benchmarks for my industry?
- What do I need to focus on for sustainable safe production?

Issues

- Significant incidents continue to happen without warning; investigations show a disconnect between actual practice and performance expectations
- Opaque performance measures – everything is okay, until it's not
- Compliance, governance, assurance, and safety are all consuming and disconnected from operational needs





Multi-Phase Vehicle Interaction Control Improvement Process – Relevant Deliverables

- Performance baseline reviews using industry validated good practice references.
- Project planning and launch support
- Operational review and validation of 'Work as Documented' against 'Work as Done.'
- Feedback and improvement advice from your own knowledgeable and experienced personnel based on their real-world insights.
- A systems level to granular review and analysis
- Identify strengths and catalogue Opportunities for Improvement (OFIs) for Senior Management review and action.
- Digital maps of legislative and company requirements and against site processes and industry good practice.
- Ongoing support to adapt and apply industry references and processes to improve site vehicle interaction control effectiveness.

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Performance Improvement and Enhancement

Senior Leader Questions and Issues

Questions

- How can we better connect and leverage our substantial risk management and operating system investments?
- Do I have the institutional capability required to deliver projects for sustainable improvements?
- How can I improve performance measures, so they detect early drift?

Issues

- System improvements do not always begin by considering how they will assist operational personnel
- We understand our risks, but we are less sure about the effectiveness of related controls
- A lack of internal capability to deliver complex projects results in consultant dominated improvement programs
- Loss of organizational memory — experience, knowledge, and company knowhow is geographically scattered, and inconsistently captured and applied
- Inconsistent processes and workforce engagement results in limited and/or poor-quality outcomes

Multi-Phase Vehicle Interaction Control Improvement Process – Relevant Deliverables

- Integrate and leverage existing risk and business system investments
- Internal capability building
- Adapt and apply proven approaches to:
  - Confirm what must be in place for things to go right
  - Assign accountabilities
  - Benchmark performance
- Provide a comprehensive and consistent approach to confirm site performance requirements, implementation approaches, and performance monitoring signals
- Detect and correct early drift from expected performance
- Structured for digitization from the get-go.

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Operationally Integrating and Leveraging Technology

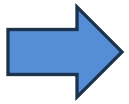
Senior Leader Questions and Issues

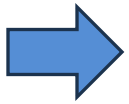
Questions

- How do we get corporate, consultant, and technology resources to align with our needs and integrate with our existing processes?
- How can we digitize and use data to improve decision making at all levels?
- How can we engage leaders at all levels to innovate and out compete?

Issues

- Decisions are made using incomplete, inaccurate, and untimely information
- Employee engagement and input is restricted – digital is done to our people, not with them.
- Previous digital technology transformation efforts are ad-hoc, stalled, and ignore task level information.
- Application of company standards is biased by the individual perceptions and experience of site leaders.





Multi-Phase Vehicle Interaction Control Improvement Process – Relevant Deliverables

- Establish and evolve people centric intelligent solutions that build from existing foundations
- Control Framework Architecture for Digitization
- Data is captured as it happens, directly from the workforce including for CAS Technology
- Informed and engaged leaders at all levels
- Technology is operationally integrated with existing controls

Workflows

- Company information is mobilized for field use
- In-field decision makers have access to the right information at the right time
- Support and reference information is always available
- Valid workflow data is co-designed, applied, and improved by employees
- Teams provide ongoing improvement feedback, beginning with their self-monitoring and improving their own performance

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