



***FORWARD
IN FOCUS***

Zero Fatalities: Building a Powered Industrial Equipment Program that Works

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Powered Industrial Equipment (PIE) Safety - Building a Program That Prevents Fatalities and Improves the Bottom Line



Qualification & Accountability

Operator qualification & accountability



Inspections

Inspections & preventive maintenance



Reporting & Metrics

Incident reporting & performance metrics



Safe Operating Procedures

Site specific safe operating procedures



Continuous Improvement

Continuous training & emerging technology

Why PIE Safety Matters - PIE incidents Can Be Catastrophic

Powered industrial equipment can expose employees to:

- Struck-by and caught-between hazards
- Tip-overs and falls
- Pedestrian collisions
- Loads falling or shifting
- Equipment failures

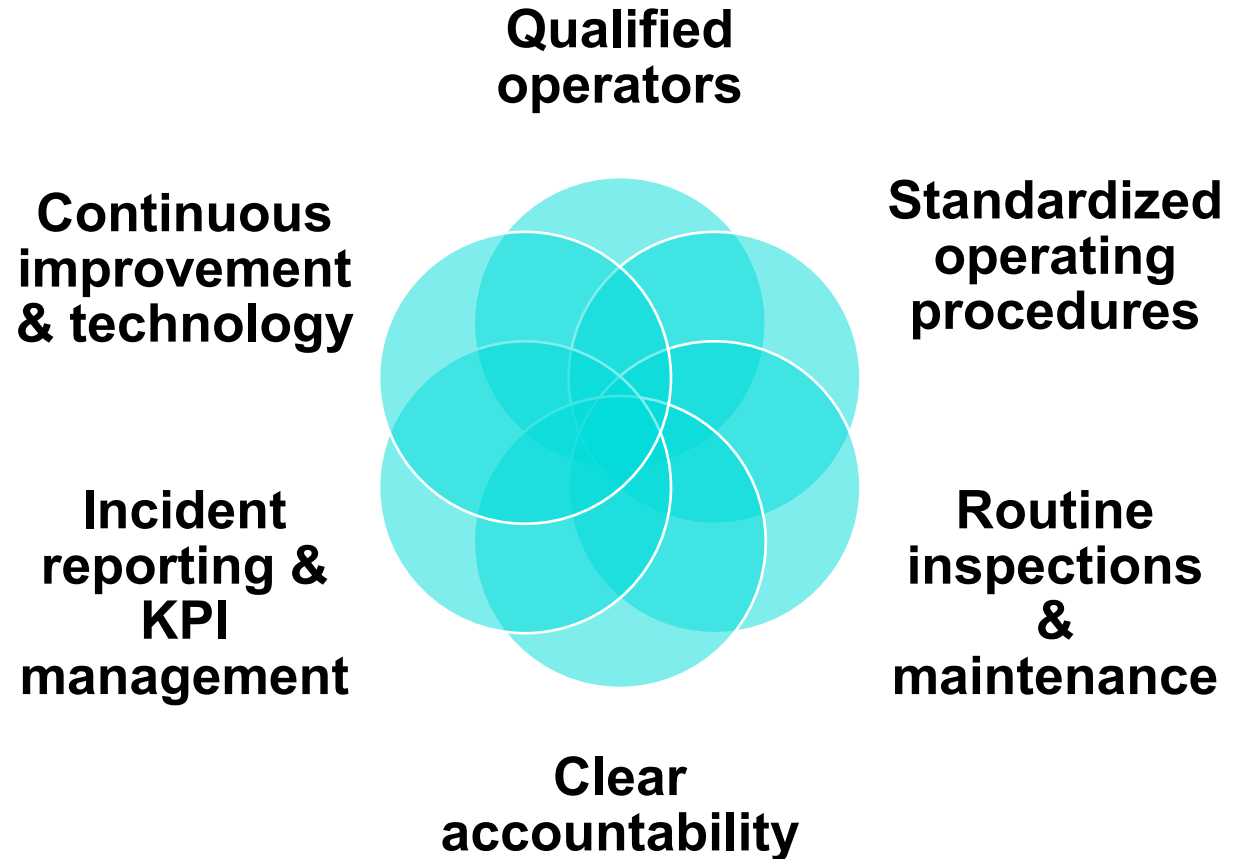
A single serious incident can affect:

- People and families
- Production and customer commitments
- Workers' compensation and insurance costs
- Equipment and facility assets
- Employee morale and company reputation

Key message: A strong PIE program is both a **life-safety investment** and a **business-performance strategy**

SIX PILLARS OF AN EFFECTIVE PROGRAM

What Does a Robust PIE Program Look Like?



Goal: Make the safe way the **standard way**—every shift, every operator, every location



(1) Establish equipment-specific operator qualification

(2) Combine:

- ✓ Formal instruction
- ✓ Practical training
- ✓ Workplace evaluation

(3) Verify operators can safely perform assigned tasks

(4) Restrict operation to authorized/qualified personnel – **Zero Tolerance**

(5) Maintain accessible training records

(6) Reevaluate operators when:

- ✓ Unsafe operation is observed
- ✓ An incident or near miss occurs
- ✓ Equipment or operating conditions change
- ✓ Performance indicates additional training is needed

Operator Certification & Recertification

Leadership question: *Can you prove that every person operating PIE today is qualified to do so?*

Standardized Safe Operating Procedures - **Remove** Variation From Critical Tasks

SOPs should clearly address:

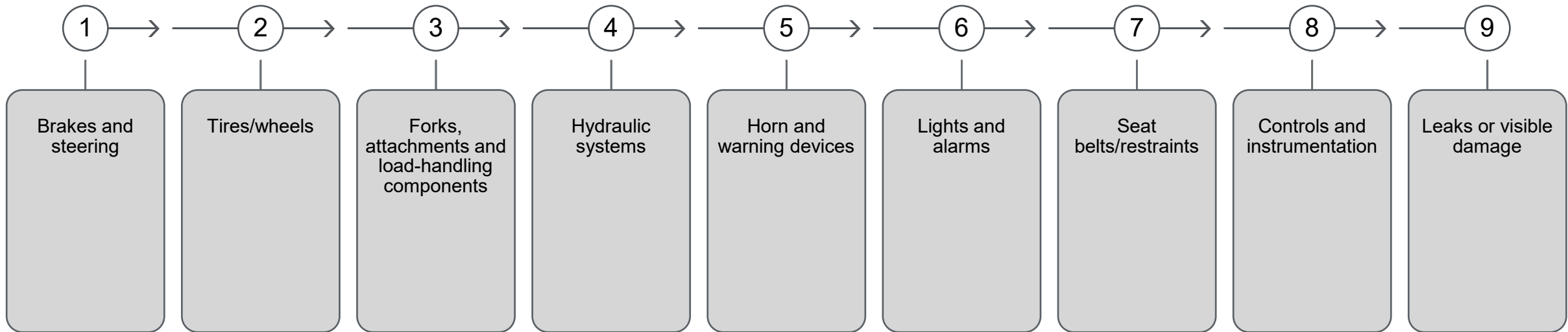
- Pre-use inspection
- Starting, stopping and parking
- Travel routes and speed controls
- Pedestrian interaction
- Loading/unloading
- Ramps, docks and elevated surfaces
- Visibility and use of spotters
- Seat belts/restraints
- Battery charging or fueling
- Attachments and unusual loads
- Shutdown and securing equipment



Design principle: SOPs should be simple enough to use and specific enough to control risk

Routine Inspections - Every Shift Starts With Equipment Readiness

OPERATORS SHOULD VERIFY



If something isn't right: STOP → TAG → REPORT → REPAIR → VERIFY → RETURN TO SERVICE
Never allow production or operational pressure to override equipment safety

Supervisor & Operator Accountability

Safety ownership must exist at every level

Operators

- Follow SOPs
- Complete inspections
- Report hazards, defects and near misses
- Use equipment only within their authorization
- Stop work when conditions are unsafe

Supervisors

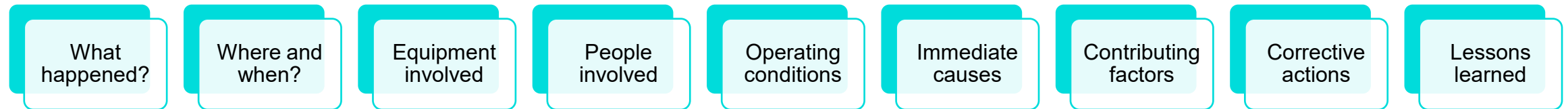
- Verify operator qualification
- Enforce operating standards
- Correct unsafe behaviors
- Ensure defects are addressed
- Review incidents and trends
- Reinforce expectations through coaching

Management

- Provide resources
- Establish measurable expectations
- Review KPIs
- Remove systemic barriers
- Hold leaders accountable for results

Incident - An Incident Is An Opportunity To Learn Not Just An Event To Document

BUILD A REPORTING PROCESS THAT CAPTURES:

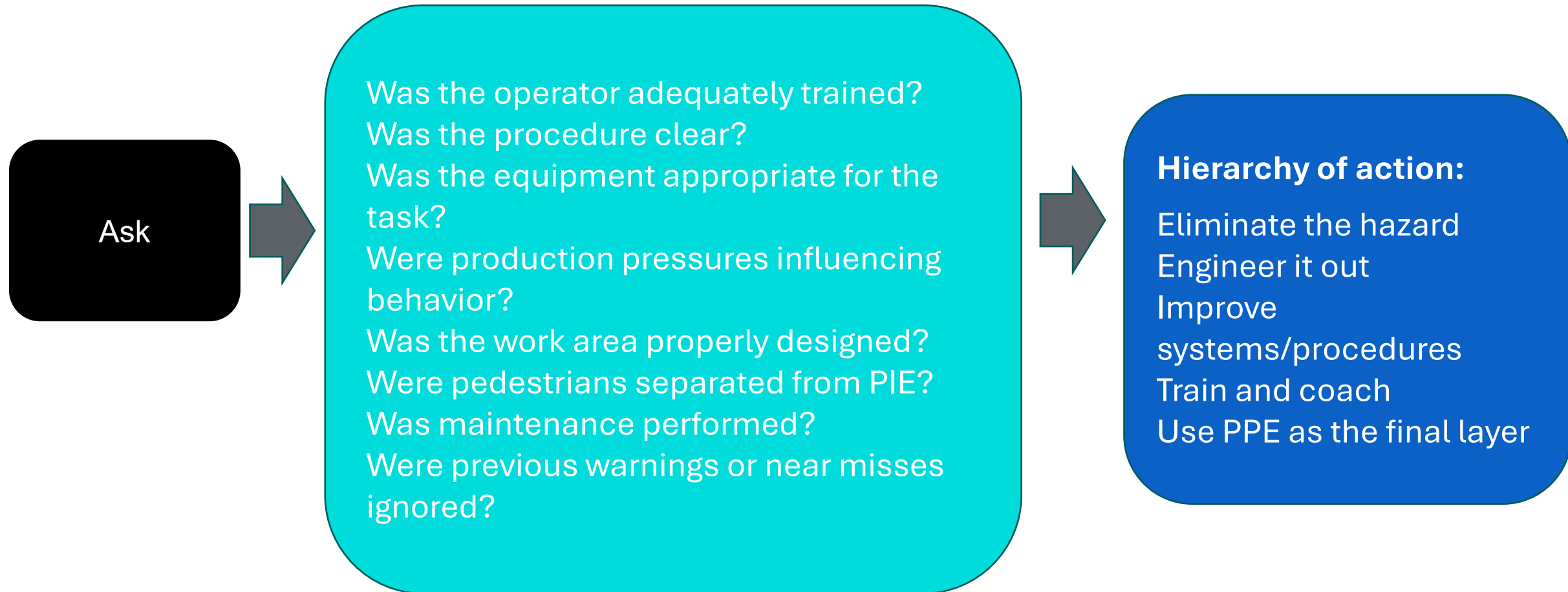


Report more than injuries.

Near misses, unsafe conditions and equipment defects can provide the **earliest warning of a serious event**

From Incident Investigation to Prevention - Treat Root Causes Not Symptoms

MOVE BEYOND – “OPERATOR ERROR”



Performance KPIs - What Gets Measured Gets Managed

CONSIDER TRACKING BOTH LEADING AND LAGGING INDICATORS”

Leading indicators

- % operators currently qualified
- Training completion rate
- Inspection completion rate
- Defect closure time
- Safety observations completed
- Near misses reported
- Corrective actions closed on time

Lagging indicators

- PIE incidents
- Recordable injuries
- Lost-time incidents
- Property damage
- Collision frequency
- Equipment downtime

Best practice: Don't wait for an injury to tell you the program is failing

Building a Culture of Safety - Consistency Creates Discipline

A strong PIE culture means:

Leaders visibly model safe behavior

Operators are encouraged to stop unsafe work

Near misses are welcomed and investigated

Supervisors coach instead of simply police

Recognition reinforces positive behaviors

Lessons learned are shared across teams

Safety expectations remain consistent during production peaks

Culture is what happens when no one is watching

Continuous Training - Training Doesn't End with Certification

Use multiple
reinforcement
methods



- Refresher training
- Toolbox talks
- Microlearning
- Equipment-specific coaching
- Safety observations
- Scenario-based exercises
- Post-incident retraining
- New-hire onboarding
- Change-management training

Train → Observe → Coach → Measure → Improve

Emerging Technology - Technology Can Add Another Layer of Protection

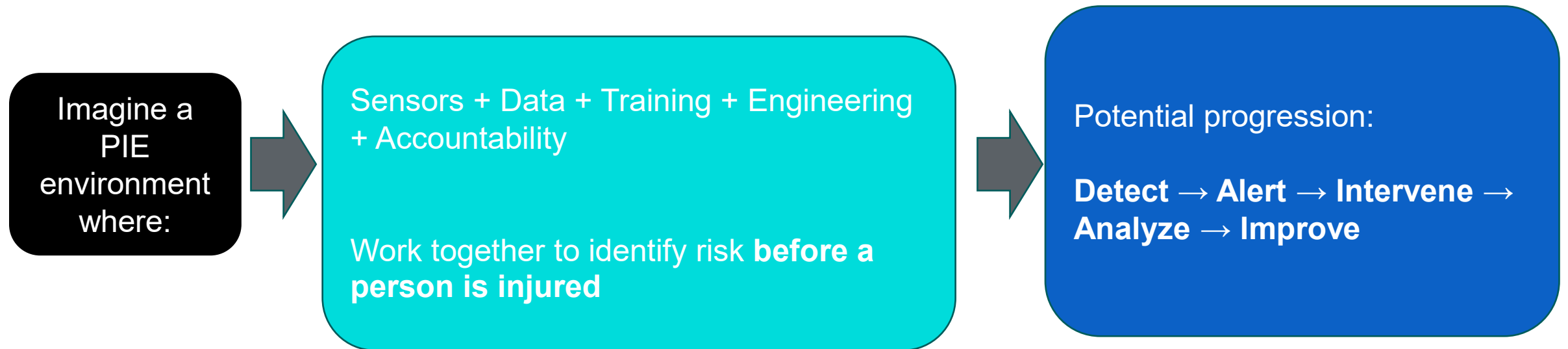
Modern PIE
safety solutions
can help
organizations

- Detect pedestrians and obstacles
- Alert operators to collision risks
- Monitor speed and unsafe operating behaviors
- Restrict unauthorized equipment access
- Track impacts and harsh driving events
- Provide cameras/video for situational awareness
- Create geofenced speed or operating zones
- Automate inspection and maintenance workflows
- Analyze equipment and operator performance



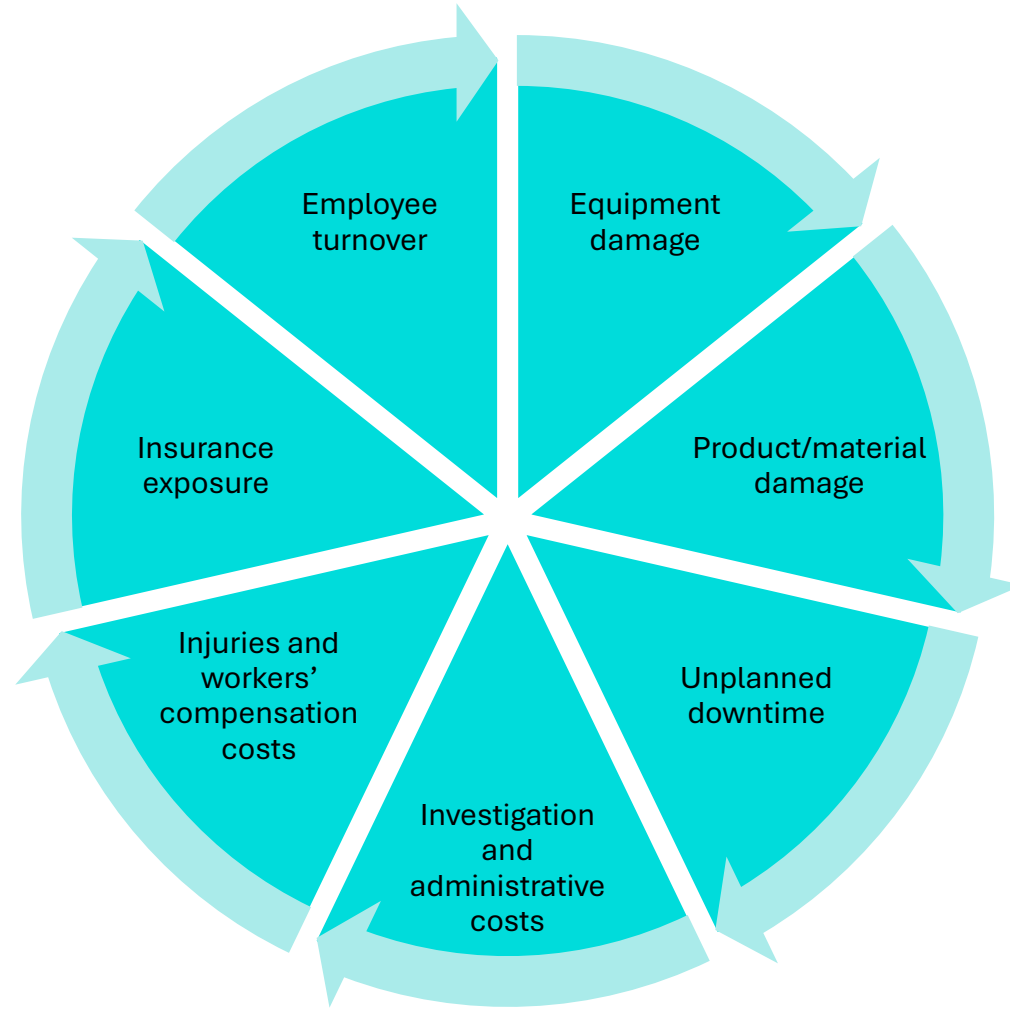
Important: Technology should supplement—not replace—sound procedures, qualified operators and effective supervision

The Future: Preventing the Fatal Event From Reacting to Incidents → Predicting and Preventing them



The objective isn't simply fewer incidents.
The objective is zero fatalities

The Business Case - Safety and Productivity Are Not Competing Priorities



A mature PIE program can help reduce:

Management Dashboard

A simple leadership scorecard

Category	KPI	Target
Operators	Qualified/authorized	100%
Inspections	Completed as required	100%
Defects	Corrected before use	100%
Training	Required training current	100%
Near misses	Reported & investigated	Increasing visibility
Corrective actions	Closed on time	≥ 95%
PIE incidents	Serious incidents	Zero
Fatalities	Fatal PIE incidents	Zero

Targets should be customized to your organization's risk profile and applicable requirements

Leadership Takeaways - Five Things Every Leader Should Remember



1. Qualified operators save lives
2. Standard work reduces variability and risk
3. Inspections prevent equipment defects from becoming incidents
4. Accountability turns policies into behavior
5. Data, training and technology enable continuous improvement

A robust PIE program doesn't just prevent injuries.
It protects people, strengthens operations and improves the bottom line

Discussion / Q&A



What is your greatest PIE risk today?

Consider:

- Which equipment or task presents our highest risk?
- Where are pedestrians most exposed?
- Are all operators demonstrably qualified?
- What recurring unsafe behaviors are we seeing?
- Which KPI would tell us the most about program health?
- What technology could address our biggest remaining risk?

What will you do differently starting tomorrow?

Thank You

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