



[Ex Inspection Strategy Framework]

SafeEx Index 100:20

A data-driven framework for progressively reducing Ex inspection time, annual inspection workload and POB while maintaining Ex integrity.

From periodic inspection to data-driven Ex integrity

Reliable inspection data, equipment performance and risk-based methods help focus resources where they matter most, progressively optimise inspection scope and frequency, and support lower POB requirements.

Understanding Index 100:20

A structured path to lower inspection effort, annual workload and personnel requirements

SafeEx Index 100:20 describes the progression from a conventional inspection regime, represented as Index 100, toward a more optimised approach where **inspection scope, frequency and methods** are increasingly guided by reliable data, equipment performance and risk.

The objective is not simply to perform fewer inspections. It is to **progressively improve** how efficiently inspections are executed, how much equipment requires inspection each year, and where specialist resources are needed, while maintaining the required level of Ex integrity.

How the Journey Progresses

The journey begins by establishing a reliable **digital foundation** through structured inspection data, register integrity and consistent equipment identification.

This improves inspection execution and reduces unnecessary time spent locating equipment, handling information and documenting work.

As sufficient inspection history and operational data become available, Ex engineering and risk-based methods can then be applied to optimise inspection scope, intervals and techniques.

The journey ultimately progresses toward **Continuous Supervision by Skilled Personnel**, where equipment performance continuously informs the inspection strategy and supports a lower recurring workload and personnel requirement.

From Index 100 Toward Index 20

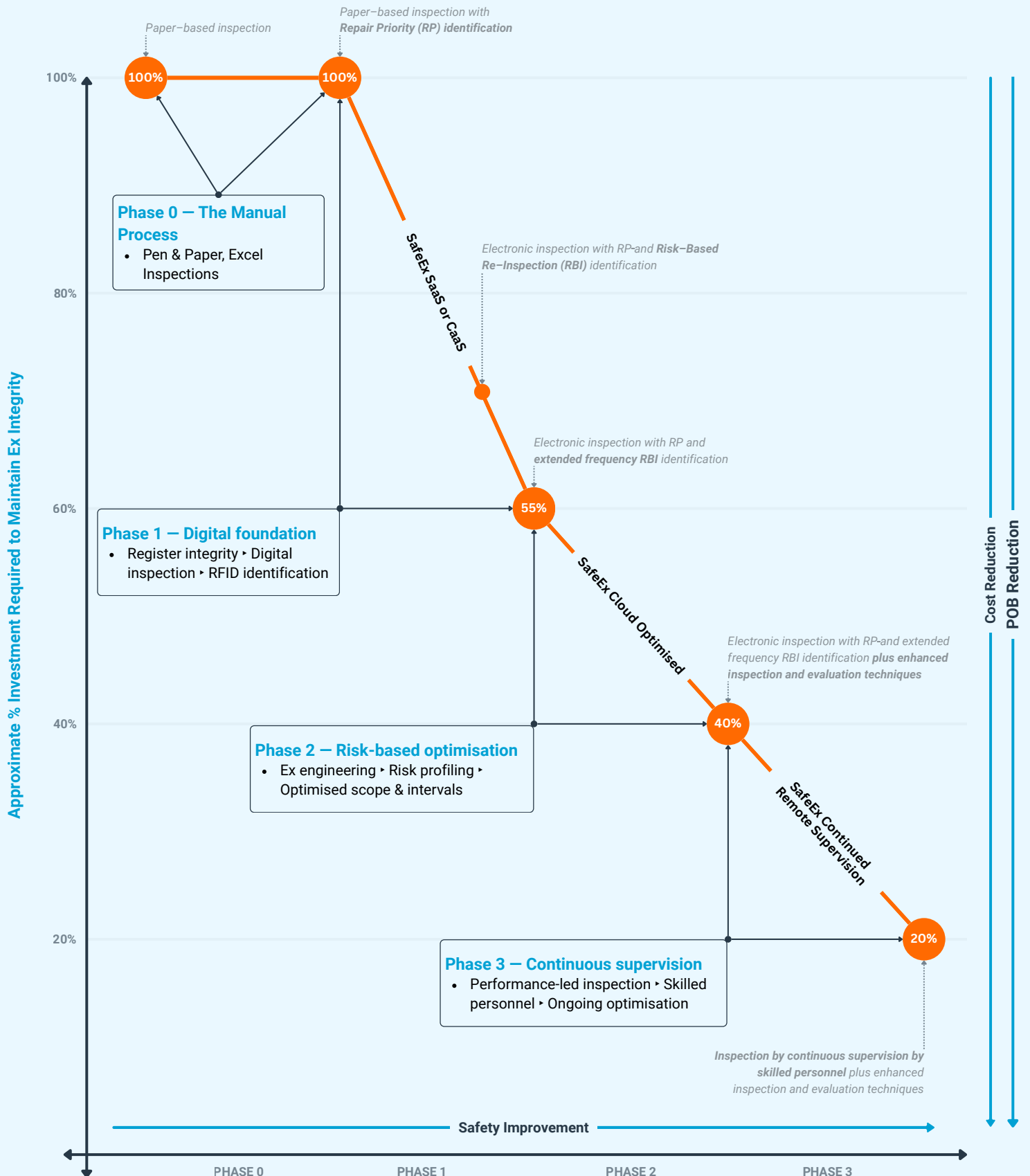
Index 20 represents an **optimised end-state**, not a universal fixed outcome.

The achievable level depends on the asset, existing data quality, inspection history, equipment condition and current inspection regime.

As the operation progresses, the objective is to reduce the resources required to maintain Ex integrity through more efficient inspections, a more targeted annual inspection scope and, where applicable, **lower POB requirements**.

Index 100:20 therefore provides a strategic framework for progressive optimisation rather than a one-size-fits-all reduction target.





Phases of Inspection Regime based upon the SFX Ex Strategy Framework



From Manual Legacy to Data-Driven Ex Integrity

The Index 100:20 framework provides a strategic roadmap for progressing from high-cost, conventional inspection regimes toward an optimised Index 20 workload. By transitioning from reactive inspection practices to a proactive, data-driven approach, organisations can **reduce inspection time, annual inspection workload and POB**, while strengthening Ex integrity and operational safety.

Phase 0: Index 100% – The Manual process

At this entry stage, the workload remains at maximum capacity due to the lack of fully integrated digital infrastructure.

- **The Process:** Manual or paper-based inspections are supplemented with Repair Priority (RP) identification.
- **Specialist View:** Workpack preparation and field-to-office reporting remain resource-intensive, keeping the inspection regime at Index 100.
- **The Reality:** While RP improves visibility of repair priorities, manual handling limits opportunities to reduce inspection time, recurring workload and personnel requirements.

Phase 1: Index 55% – Digital Foundation & Register Integrity

Efficiency begins by establishing a digital Single Source of Truth and improving the quality of the Ex data.

- **The Action:** Digitise the Ex register (HAE), correcting errors, completing missing data and enriching the database with the relevant fields required to prepare for RBI (Risk-Based Inspection).
- **Implementation:** Ex equipment is RFID-tagged for error-proof identification, while personnel use structured digital workflows to ensure high-quality inspection reporting.
- **The Impact:** Administrative effort, manual data handling and time spent locating and documenting equipment are reduced, improving inspection efficiency and creating the digital foundation required to progress toward Index 55.

Phase 2: Index 40% – Strategic Optimisation & Scope Reduction

This phase uses technical expertise and inspection data to progressively optimise the active Ex inspection scope.

- **The Action:** SafeEx Ex specialists and engineering expertise support inspection quality, analyse the HAE database and identify opportunities to de-scope equipment where technically justified.
- **Technical View:** By establishing the True Risk profile of the Ex equipment, inspection intervals and methods can be optimised based on risk, historical inspection data and equipment performance rather than fixed schedules alone.
- **The Impact:** Inspection resources become more targeted as unnecessary scope is reduced and intervals are optimised where technically justified. This progressively lowers the annual inspection workload and personnel effort required to maintain Ex integrity.

Phase 3: Index 20% – Continuous Supervision & Sustained Compliance

The final stage moves toward a performance-led model where Ex integrity is embedded into daily operations.

- **The Action:** Implement Continuous Supervision by Skilled Personnel, supported by expert oversight and data-driven inspection management.
- **The Oversight:** Equipment performance and inspection results continuously inform the inspection strategy, with relevant Ex integrity insights integrated into existing CMMS workflows where applicable.
- **The Result:** The inspection regime can progress toward an optimised Index 20, supporting a more targeted use of inspection resources, sustained lower workload and personnel requirements, and long-term audit readiness.

Cost Reduction
POB Reduction & Carbon Footprint Reduction

Safety Improvement

PHASE 0

PHASE 1

PHASE 2

PHASE 3



[From Framework to Execution]

Start From Where Your Operation Is Today.

The Index 100:20 journey does not require every operation to begin at Index 100. SafeEx can support progression from the organisation's current Ex inspection maturity, data quality and operational setup, identifying opportunities to improve inspection efficiency, reduce recurring workload and lower personnel requirements.

How SafeEx Supports the Journey

Technology & Data Foundation

SafeEx Cloud, digital HAE register, RFID identification and structured inspection workflows establish reliable data, faster field identification and traceability.

Ex Engineering & Optimisation

Ex specialists combine HAE analysis, RBI preparation, true-risk profiling and inspection optimisation to progressively target inspection scope, intervals and workload.

Execution & Continuous Supervision

Inspection support, Continuous Supervision by Skilled Personnel, remote expert oversight and CMMS integration help sustain an optimised inspection regime and reduce operational burden.

Where Does Your Current Ex Inspection Regime Sit Today?

Review your current inspection regime with SafeEx and identify where inspection time, annual workload and personnel / POB requirements could be progressively optimised.

EXPLORE YOUR NEXT STEP



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