

PROUDFOOT AI DIAGNOSTIC

Findings pack.

Northwind Materials · Westfield operation

SCOPE

Open-pit mine, crusher and concentrator, rail loadout. Single asset.

DELIVERY

Remote, in days. No site visit required at this rung.

DATA WINDOW

24 months of Westfield's own operating data, read remotely.

REVIEW

Every finding challenged and signed off by a Proudfoot senior operator.

Read remotely. Signed by a senior operator.

Proudfoot AI read 24 months of Westfield's operating data against the corpus: the benchmark set of **20,000+ engagements since 1946** and the 86 steps of The Proudfoot System. The model proposes; a senior operator disposes. Nothing enters this pack on the model's word alone.

WHAT THE AI READ

Westfield's own data, as it stands

- Fleet management system: cycle, queue, and payload records
- Plant historian: rates, stoppages, restarts
- CMMS: work orders, schedule compliance, reactive share
- Shift logs, planning artefacts, meeting records

WHAT IT WAS READ AGAINST

The corpus

The achieved range across comparable open-pit operations in the benchmark set, the hypothesis library built from every pattern of underperformance the firm has documented, and the methodology itself: 5 phases, 86 steps.

WHAT THE SENIOR OPERATOR DID

Challenged it, then signed it

Every finding was tested against thirty years of operating experience. Two hypotheses did not survive review and were struck. Three sizings were adjusted down. What remains carries a signature, not a probability.

WHAT THIS PACK IS NOT

The boundary of a remote read

No on-site observation, no behavioural profile, single asset only. How the shift actually runs, minute by minute, and how leaders actually behave belong to the Five-Day Diagnostic. The final leaf of this pack is the plan for exactly that.

4.3:1

Average return on investment across 4,000+ documented engagements since 2000

20,000+

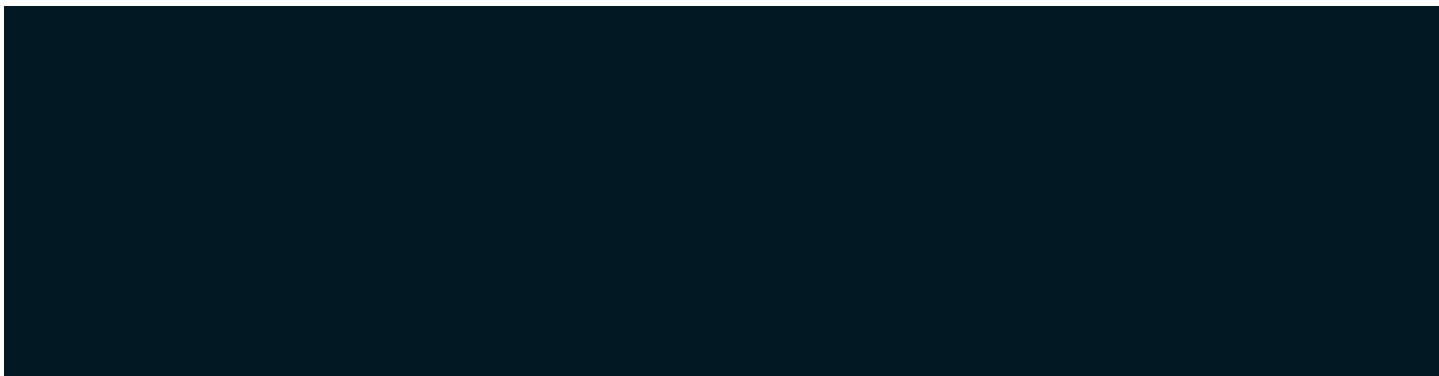
Engagements since 1946 in the benchmark set

105

Countries delivered, one methodology



Illustrative example. Northwind Materials and the Westfield operation are fictional; the figures in this pack reconcile internally but do not represent any Proudfoot client result.



Where the prize sits, and why.

Four drivers, ten sub-drivers, each sized from Westfield's own data at the base case. **Expand a driver to see the evidence behind it.** Each driver maps to a lever in the Proudfoot value-lever taxonomy, the same structure the benchmark set is indexed by.

The Westfield prize

£9.7m / year

BASE SIZING · ANNUAL



Load and haul effectiveness

LEVER · LOAD & HAUL

£3.1m

32% of prize



Truck idle and queue time at shovel and crusher

£1.4m

Fleet data shows 11.2% of truck hours queuing or idle, against a 6% benchmark across comparable open-pit operations.

Payload variance against target

£0.9m

Mean payload runs at 91.4% of target. Top-quartile operations in the benchmark set hold 97%.

Shift-change and break drift

£0.8m

An average of 38 minutes of loading time is lost at each shift boundary, consistent across 24 months.

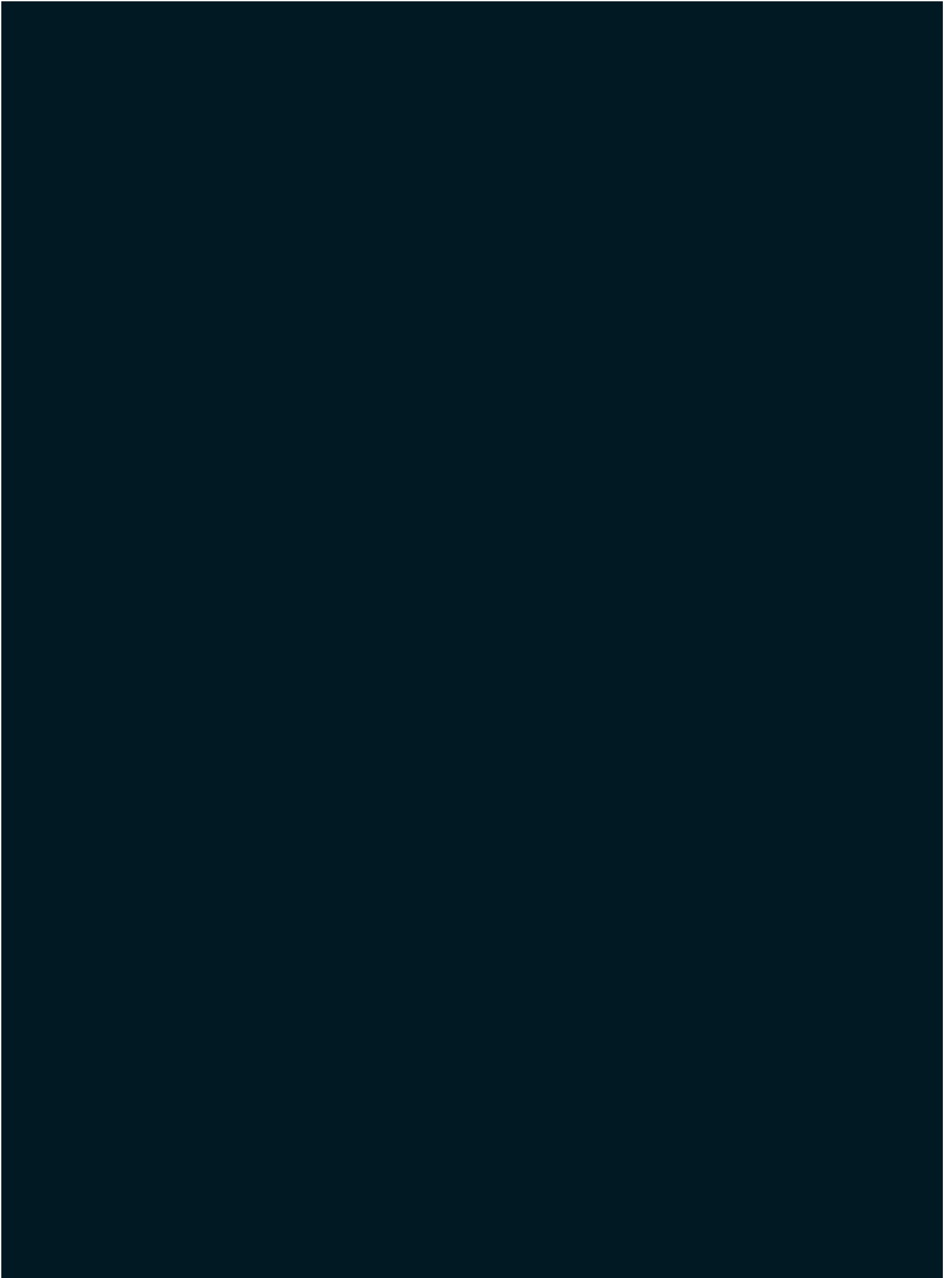
<p>Processing: crusher and concentrator</p> <p>LEVER · PROCESSING</p>	<p>£2.9m</p> <p>30% of prize</p>
<p>Unplanned crusher stoppages</p> <p>412 stoppage events in the last 12 months. 64% trace to three repeat causes, none with a closed root-cause record.</p>	<p>£1.3m</p>
<p>Running below demonstrated rate</p> <p>The plant runs at 88% of its own demonstrated best sustained rate. The benchmark question is not what others achieve; it is what Westfield has already proven.</p>	<p>£1.1m</p>
<p>Restart and ramp losses after stops</p> <p>An average of 47 minutes back to rate after each stop. Standard restart work in comparable plants roughly halves this.</p>	<p>£0.5m</p>

<p>Maintenance effectiveness</p> <p>LEVER · OPERATING & MAINTENANCE COST</p>	<p>£2.2m</p> <p>23% of prize</p>
<p>Reactive share of maintenance hours</p> <p>54% of maintenance hours are reactive. Comparable operations in the benchmark set hold 30% or less.</p>	<p>£1.2m</p>
<p>Schedule compliance and wrench time</p> <p>Weekly maintenance schedule compliance averages 61%, with wide variance between crews.</p>	<p>£1.0m</p>

<p>Mine planning and ore feed control</p> <p>LEVER · MINE PLANNING, GEOLOGY & ORE FEED CONTROL</p>	<p>£1.5m</p> <p>15% of prize</p>
<p>Grade and blend variance to plan</p> <p>Feed grade variance exceeded plan tolerance in 9 of the last 24 months, moving losses downstream into the concentrator.</p>	<p>£0.9m</p>
<p>Plan adherence in the drill and blast sequence</p> <p>Sequence adherence averages 73%, driving re-handle and ore-feed instability.</p>	<p>£0.6m</p>

SUB-DRIVERS RECONCILE TO BRANCH TOTALS AND TO THE BASE PRIZE · £9.7M ✓

Illustrative example, fictional client. Sub-driver evidence lines quote Northwind's illustrative data, not any client's.



The management system, scored.

Every element of the Proudfoot MOS, the 6+4 Element Framework, scored 0 to 5 from Westfield's cadence artefacts, meeting records, and system data. **Select an element to read the finding behind its score.**

- 0 · NOT PRESENT
- 1 · DESIGNED
- 2 · IMPLEMENTED
- 3 · COMPLIED
- 4 · UNDERSTOOD
- 5 · OWNERSHIP

The Core Management Cycle

Six elements. The engine of daily operations.

E1 Strategic Alignment & Performance Planning

TO HOLD THE PRIZE



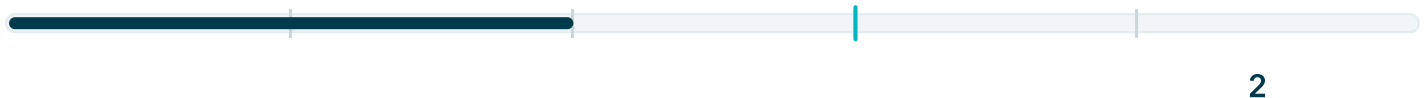
Targets exist and cascade to area level. They stop at the supervisor's door; no frontline plan carries them.

E2 Work Scheduling & Resource Allocation



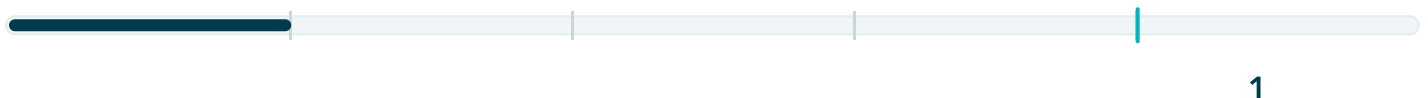
A weekly schedule is built, then rebuilt daily by phone. The plan is a starting suggestion, not a commitment.

E3 Execution Assignment & Standards Implementation



Standards cover roughly 60% of critical tasks. Few are live documents; the best crew's method is nobody's standard.

E4 Performance Monitoring & Variance Control



Variance becomes visible the next morning, not within the shift. There is no short-interval control anywhere on the asset.

E5 Performance Review & Structured Problem Solving



Reviews discuss yesterday's number, not its cause. Of 412 crusher stoppage events, 3 have a closed root cause.

E6 Continuous Improvement & Adaptation



Improvement runs as occasional projects, not as a routine. Gains decay when the project team moves on.

The Foundational Enablers

Four elements. The architecture underneath the cycle.

E7 Management Infrastructure & Governance

TO HOLD THE PRIZE



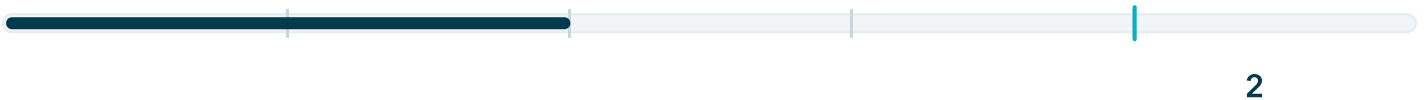
The meeting structure is in place and attended. Agendas drift to firefighting; actions leave without owners.

E8 Data Architecture, Systems & Reporting

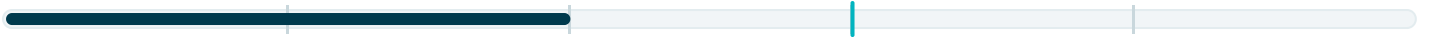


The data is good. Fleet system, historian, and CMMS hold 24 clean months. It is read after the fact, not used in the moment.

E9 People Capability & Active Leadership



Supervisors spend 31% of their time at the face, by their own system's logs. Active coaching is willing but untrained.



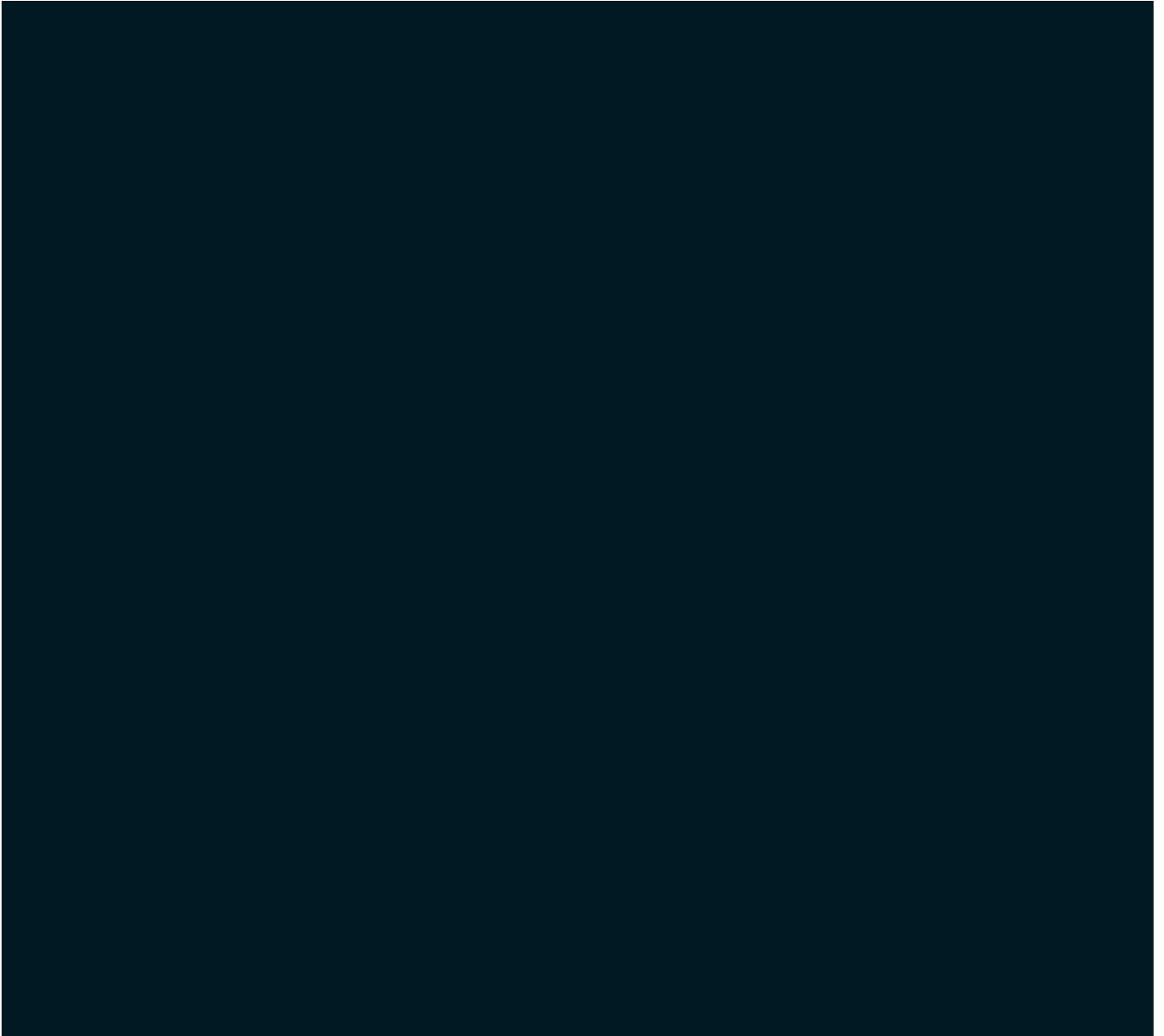
2

Tools vary by crew and by shift. Where a standard exists, compliance is unmeasured.

2.1 /5 overall

Westfield records what it does not yet act on. The strongest element (data, scored 3) feeds the weakest pair (variance control and problem solving, scored 1). That gap is where the prize concentrates, and it is a management-system gap, not a technology gap.

Scored on the Proudfoot MOS Maturity Assessment scale. The cyan marker shows the maturity level required to hold the sized prize at each element; it is illustrative, derived from the value-driver evidence, not an external benchmark. Illustrative example, fictional client.



Will the change hold? The early signals.

Four readiness signals, read from the same 24 months of data. **None of them required a survey.** All of them show in how the operation already behaves: what it commits to, what it completes, and how fast it reacts to its own results.

ACTION FOLLOW-THROUGH

38% of logged actions closed by their due date



Commitments are made readily and held loosely.

CADENCE HELD

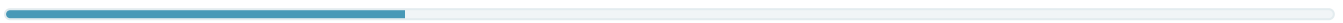
71% of scheduled planning and review meetings took place



The routine exists; it bends under pressure.

SPEED OF REACTION

26 hrs from end of shift to first management read of the result



The operation learns tomorrow what it could act on today.

INITIATIVE SURVIVAL

1 of 3 improvement programmes in 24 months still running after six months



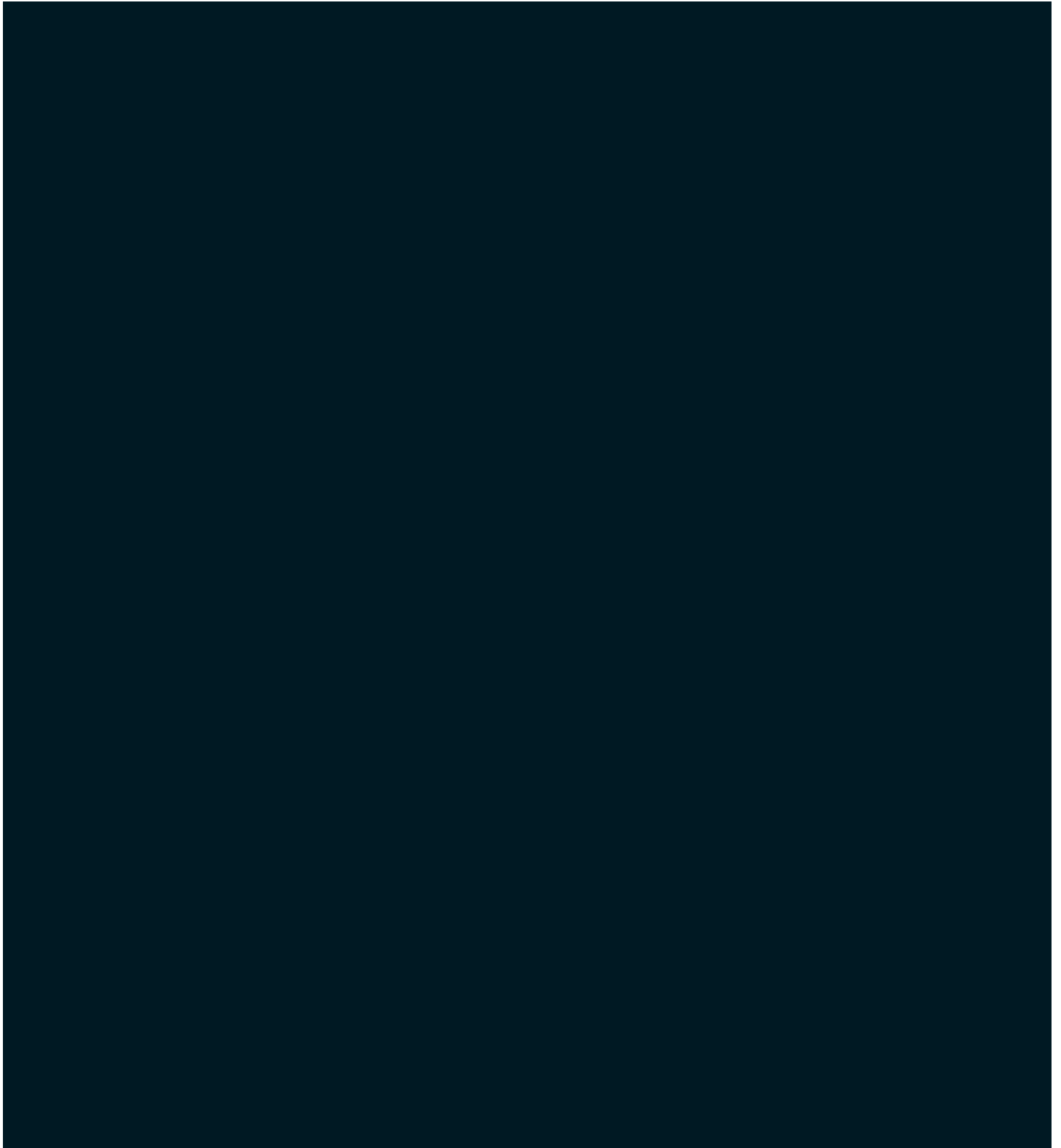
Change starts well here. Holding it is the risk to design for.

Readiness is medium. Leadership attention is real and the organisation starts change willingly; follow-through routines are the weak point. Implication for design: install

the holding routines (Elements 4 to 6) before adding new targets, and resource Sustain from day one.

The boundary of this snapshot. These signals are read remotely from Northwind's own operating data. The behavioural profile of leaders against the 8 Active Management Behaviours (8AMBs), and day-in-the-life observation of how the work actually runs, require being on site. They belong to the Five-Day Diagnostic, and they are designed into the study plan at leaf 07.

Illustrative example, fictional client.



Three sizings of the same prize.

Each band is sized against the achieved range in comparable engagements from the benchmark set, then constrained by what Westfield's data directly evidences. **The confidence band narrows as the evidence hardens.**

CONSERVATIVE

£6.4m / year

High confidence

Drivers the data evidences directly, sized at the bottom of the achieved range.

BASE

£9.7m / year

Medium-high confidence

The full evidenced driver set, sized at the median of the achieved range.

STRETCH

£13.8m / year

Medium confidence

Base, plus the upper achieved range where Northwind's starting maturity suggests headroom.

£0M

CONFIDENCE BAND ACROSS THE THREE SIZINGS

£16M

£6.4M

BASE £9.7M

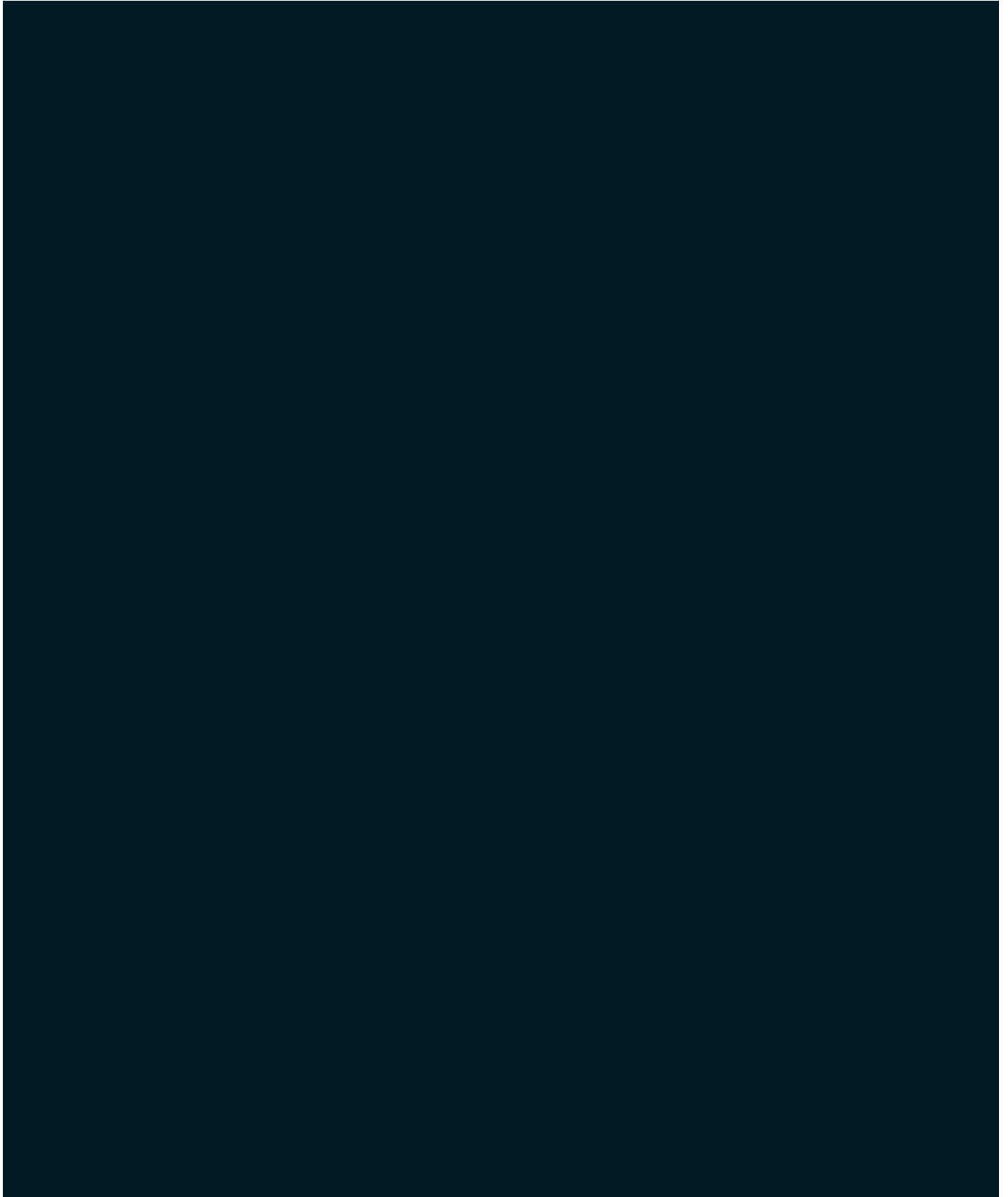
£13.8M



How to read this. The conservative band is what the data proves on its own. The base band is the full evidenced driver set at the median of the achieved range; it is the number this pack

carries throughout. The stretch band exists because Westfield's maturity baseline of 2.1 sits low: operations that start lower tend to travel further. The Five-Day Diagnostic exists to validate the base case on the ground before anyone commits to it.

Illustrative example, fictional client. Ranges reflect results achieved in past Proudfoot engagements, drawn from our structured engagement record. They are not a forecast, an estimate, or a commitment of any outcome for any operation.



Ten moves, in the order we would make them.

Ranked by value, speed to first value, and Westfield's readiness to hold each one. **Every opportunity traces to a node of the value-driver tree** and names the MOS elements that close it. The list reconciles to the base prize of £9.7m.

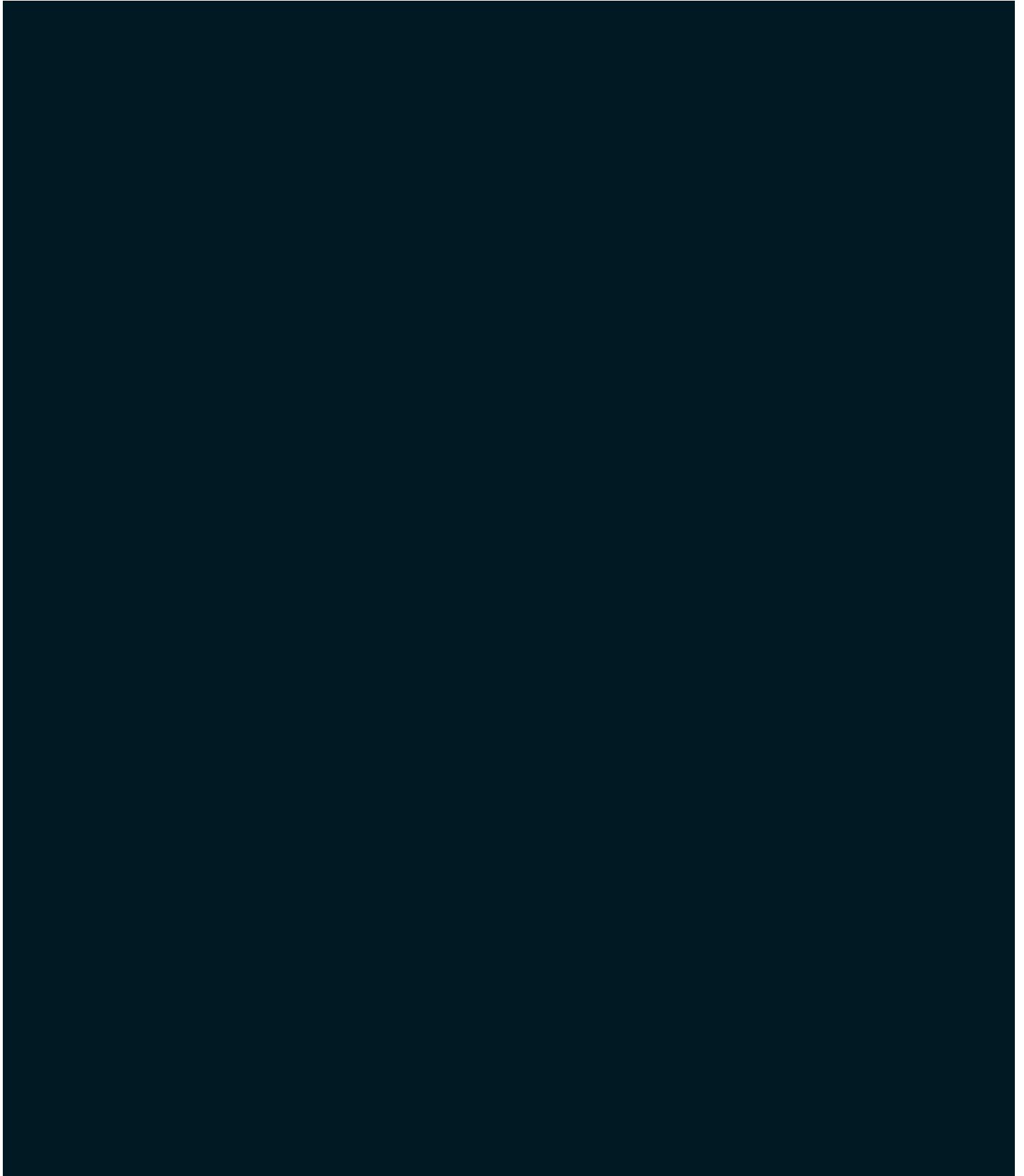
#	Opportunity	Annual value	First value	MOS elements
01	Short-interval control at the crusher and concentrator Tree ref · Unplanned crusher stoppages	£1.3m 	6 weeks	E4 E5
02	Shift-change choreography for load and haul Tree ref · Shift-change and break drift	£0.8m 	4 weeks	E2 E3
03	Restart standard work after stoppages Tree ref · Restart and ramp losses	£0.5m 	6 weeks	E3 E10
04	Queue and dispatch standards at shovel and crusher Tree ref · Truck idle and queue time	£1.4m 	10 weeks	E2 E4
05	Run-rate management to demonstrated best Tree ref · Running below demonstrated rate	£1.1m 	12 weeks	E4 E5
06	Reactive-to-planned maintenance restoration Tree ref · Reactive share of maintenance hours	£1.2m 	16 weeks	E2 E6
07	Payload standard with operator feedback loop Tree ref · Payload variance against target	£0.9m 	10 weeks	E3 E9
08	Maintenance schedule compliance and wrench time Tree ref · Schedule compliance and wrench time	£1.0m 	14 weeks	E2 E7
09	Blend and grade control discipline Tree ref · Grade and blend variance to plan	£0.9m 	14 weeks	E1 E8
10	Drill and blast sequence adherence Tree ref · Plan adherence, drill and blast	£0.6m 	12 weeks	E3 E6

£2.6m

THE FIRST 90 DAYS

Opportunities 1, 2, and 3 need no capital, no new systems, and no recruitment. At run rate they are worth £2.6m a year, and they build the operating muscle the rest of the list depends on.

Illustrative example, fictional client. First-value estimates assume the holding routines from the maturity findings are installed alongside each move.



What five days on site would settle.

This pack was produced without a site visit; that is its strength and its limit. The next rung validates every finding where the work happens: **two senior operators, five days, on the asset, with your team.**

DAY

01

Mobilise and map Aerial Mapping

- Opening alignment with Westfield leadership
- Walk the value stream end to end, pit to loadout
- Confirm scope and baselines against this pack

The mapping is done with your people, not to them. Ownership starts on day one.

DAY

02

Observe the work Day-in-the-life studies

- DILO observation of supervisors and crews across a full shift boundary
- Short-interval control dry run at the crusher
- Frontline interviews at the face

What remote analysis cannot see: how the shift actually runs, minute by minute.

DAY

03

Assess in the rooms MOS and behaviours

- Sit in the planning and review meetings as they happen
- Live assessment against the 6+4 elements
- Behavioural profile of key leaders begins (8AMBs)

The maturity baseline in this pack is tested where the management system actually operates.

DAY

04

Validate the findings Brown-paper analysis

- Brown-paper the core process with the team that runs it
- Test every finding in this pack against observed reality
- Adjust the sizing where the floor disagrees with the data

Findings that survive the frontline are findings the frontline will deliver.

DAY
05

Decide The benefits case

- Refreshed, validated benefits case
- Implementation design options with resourcing
- Decision meeting with leadership. One decision at the end.

You leave the week with a validated prize and a designed path, whatever you decide.

The Five-Day Diagnostic picks up where this pack stops.

Aerial Mapping of the whole operation, day-in-the-life observation across shift boundaries, the live MOS assessment, and the behavioural profile this pack deliberately leaves blank. One validated benefits case. One decision at the end.

Talk to us about the five days →

ON THE ASSET, WITH YOUR TEAM

Illustrative example, fictional client. The study plan follows the diagnose-and-quantify sequence of The Proudfoot System; scope and sequencing are tailored on day one.