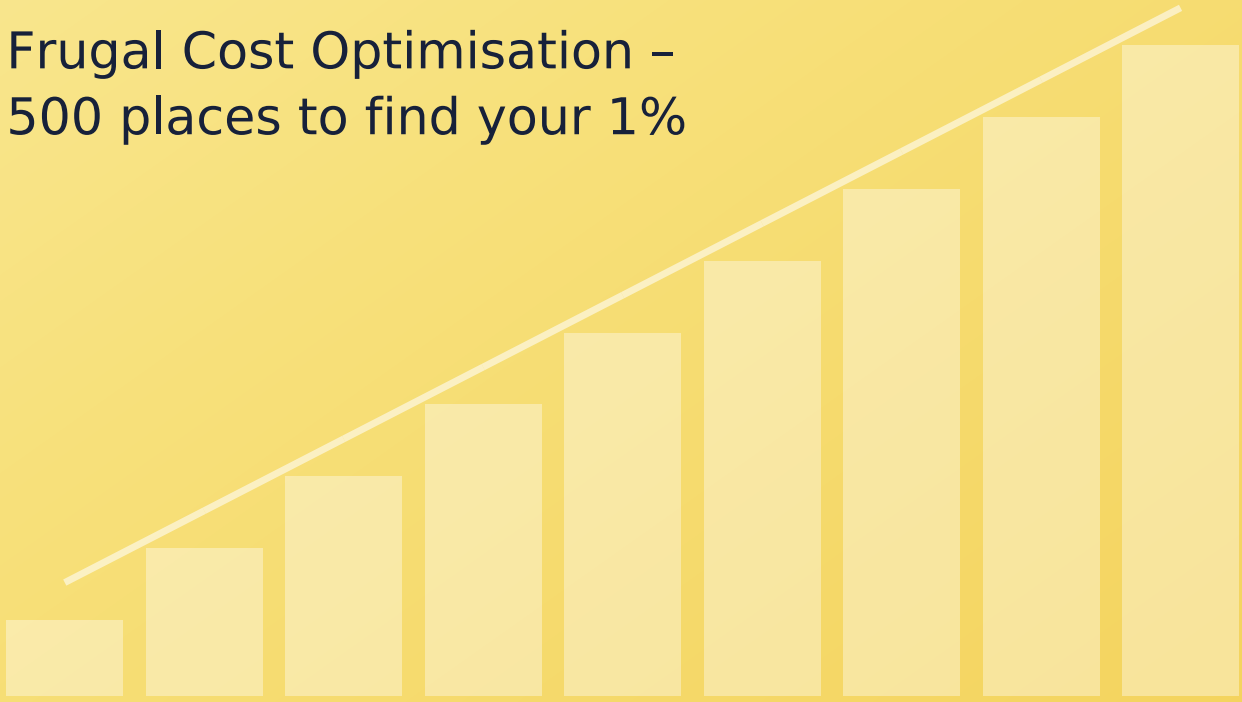
BOOK 02

The 1% Better Framework

Frugal Cost Optimisation –
500 places to find your 1%



FREE GUIDE

For SME owners and decision makers

Shelton Julius
Founder and Director, Frugal Sourcing

www.frugalsourcing.com

The 1% Better Framework

Frugal Cost Optimisation – 500 places to find your 1%. Small, steady improvements in BOM, sourcing and overheads that add up to big, sustainable savings.

Shelton Julius
Founder and Director, Frugal Sourcing

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A note from the author

Frugal Sourcing was built on one idea: a business that gets 1% better, again and again, becomes very hard to compete with. This guide sets out how to do that with cost.

I have spent my career in sourcing and supplier development for manufacturers, much of it working between European engineering teams and Indian supply bases. The lesson that has stayed with me is that large savings are almost never one clever negotiation. They are the sum of many small, well-understood changes to what you buy, how it is designed, who makes it and how the work flows, each one checked and banked.

That is good news for an SME. You do not need a procurement department or a consultancy budget. You need a clear view of where the money goes, a short list of questions to ask, and the discipline to follow each saving through to the accounts.

Who this is for

- Owners and managing directors of manufacturing and engineering SMEs.
- Finance, operations and purchasing leaders who have been asked to find savings without damaging the business.
- Anyone who has been through a cost-cutting drive and watched the costs come back.

How to use it

Sections 1 and 2 give you the idea and the map. Sections 3 to 8 each take one area of cost. Sections 9 and 10 turn it into a routine and a 90-day plan. If you only have an hour, read Sections 2 and 10 and start.

The phrase comes from the way cost actually comes out of a manufacturing business. In more than 25 years of sourcing, most of it on buses and bus sub-systems, I have never seen a single negotiation transform a cost base. I have repeatedly seen a hundred small, well-understood changes do it, and stay done.

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01

The 1% idea: why small beats big

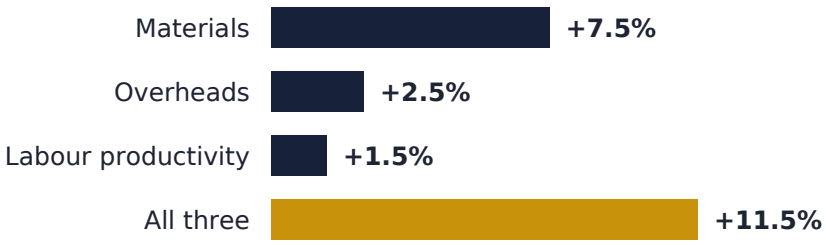
Why a steady run of small savings outperforms the big cost-cutting programme, and what 1% is really worth to your profit.

In this section

- What 1% is worth
- Why small beats big
- The three rules
- Where the 1% comes from
- Why big programmes fade
- Getting your team to believe it
- Worked example: twelve small savings in a year
- **Worksheet 1: What 1% is worth to us**
- Questions to ask yourself as the owner
- Common objections, myth and fact, tip of the day, action tasks and fun facts
- Section 1 in one page

Most cost-reduction programmes start with a big number. Ten percent off the supply base. Fifteen percent off overheads. The target is announced, suppliers are squeezed, a few headline wins are booked, and eighteen months later the costs have crept back and the suppliers remember how they were treated.

What a 1% saving does to profit (illustrative 5m-turnover company)



Illustrative company: materials 60%, labour 12%, overheads 20%, net profit 8% of sales.

The 1% Better Framework starts from the other end. Find a 1% improvement, bank it, and find the next one. It sounds modest. It is the most reliable way I know to take serious cost out of a manufacturing SME and keep it out.

What 1% is worth

> **A NOTE ON THE NUMBERS**
> Every illustrative figure in this guide is shown in plain currency units, with no symbol. Read them in your own currency: pounds, euros, dollars or rupees. The arithmetic and the percentages work the same in any of them. Where a real project is described, the figures are given in the currency they were earned in.

Take an illustrative manufacturer with sales of 5 million. Materials and bought-in parts are 60% of sales, labour 12%, overheads 20%, leaving a net profit of 8%, or 400,000. The arithmetic is the same in euros.

A 1% saving on	Annual value	Effect on profit
Materials and bought-in parts (3.0m)	30,000	+7.5%
Overheads (1.0m)	10,000	+2.5%
Labour cost through productivity (0.6m)	6,000	+1.5%
All three together	46,000	+11.5%

One percent off cost is not one percent on profit. In this example it is more than eleven. To earn the same 46,000 through sales at an 8% margin, the business would need to find 575,000 of new orders. And the saving repeats every year.

> ***"One percent off cost is not one percent on profit."***

Why small beats big

- **It is believable.** Nobody argues that 1% is impossible. People start instead of debating.
- **It is low risk.** Small changes can be tested on one part, one supplier or one line and reversed if they do not work.
- **It compounds.** Twelve separate 1% improvements in a year, each on a different cost line, add up to a result no single negotiation delivers.
- **It keeps suppliers with you.** You are improving the cost together, not transferring your problem to their margin.
- **It builds a habit.** After a year, looking for the next 1% is how the business thinks.

The three rules

1. **Measure before you move.** A saving you cannot measure is an opinion.

2. **Never trade quality for cost.** A saving that produces one field failure was a loan at a terrible interest rate.
3. **Bank it.** A saving counts when it reaches the price on the purchase order or the line in the accounts, not when it is agreed in a meeting.

> **FRUGAL IS NOT CHEAP**
> Cheap is paying less and accepting less. Frugal is paying for what creates value and refusing to pay for what does not. Everything in this guide is about the second.

I learned this on bus programmes, where the cost target is fixed long before the product is finished and there is no single negotiation that will close the gap. The method that worked was zero-based costing: build up what each part should cost from material, process and overhead, then go after the gaps one at a time, with the supplier rather than against them. On a complete bus body that meant hundreds of small decisions, not one big one, and it is how a six-month indigenisation programme came in inside its cost envelope.

Going deeper: where the 1% comes from

There are only five places a manufacturer's cost can come down. Every idea in this guide belongs to one of them, and a healthy programme draws on all five.

The five levers of cost



Lever	What it means	Typical first 1%
Specification	Change what you buy or make	Remove an over-specified material, finish or tolerance
Price	Pay less for the same thing	Re-quote a line not tested for two years
Volume	Use less of it	Improve yield, cut scrap, reduce pack size
Process	Do it with less time and effort	Halve a set-up time, remove a double handling
Terms	Change the commercial arrangement	Consolidate deliveries, agree a price formula, take an early-payment discount

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Going deeper: why big programmes fade

Large cost programmes share a pattern. They begin with a target chosen by finance, not by evidence. They concentrate on price, because price is quickest, and leave specification and process alone. They are run by a temporary team, so when the team disbands nobody owns the savings. And they are announced to suppliers as a demand, which uses up goodwill that took years to build. The 1% approach reverses each point: evidence first, all five levers, permanent owners, and suppliers as contributors.

Going deeper: getting your team to believe it

People have seen initiatives come and go. Do not launch this one. Start quietly with the cost map, bank two or three savings, and then show the team what was done and by whom. Belief follows evidence. Ask for ideas only when you are ready to act on them, because an ignored suggestion is the fastest way to end a programme.

= Worked example: twelve small savings in a year

Illustrative company with 3.0m of material and 1.0m of overhead spend.

Saving	Lever	Annual value
Steel grade standardised across two products	Specification	9,000
Fastener supply consolidated to one vendor	Price	4,500
Nesting improved on laser-cut blanks	Volume	7,000
Packaging redesigned to fit more per pallet	Process	5,500
Energy contract tendered	Price	6,000
Seven other ideas between 1,000 and 4,000	Mixed	16,000
Total banked		48,000

No single item would have justified a project. Together they lift profit by more than a tenth.

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✎ Worksheet 1: What 1% is worth to us

Use last year's accounts. Round to the nearest thousand. Print or photocopy this page.

Cost line	Annual spend	1% of that	Share of last year's profit
Materials and bought-in parts			
Subcontract and outside processes			
Labour			
Energy and premises			
Freight and packaging			
Other overheads			
Total			

? Questions to ask yourself as the owner

1. When did we last reduce a cost and keep it reduced?
2. Which of the five levers have we never used?
3. Who in the business would lead this well?
4. What happened to the last improvement initiative, and why?
5. Which supplier would I trust to bring ideas?
6. What would an extra tenth on profit allow us to do?

! Common objections

What you may hear	A straight answer
"One percent is not worth the effort."	On materials alone it can be worth several percent of profit, every year. Few sales campaigns do as much.
"We already run lean."	Lean covers process. Most businesses have never applied the same discipline to specification, price and terms.
"Our suppliers will not accept price cuts."	This is not about cuts. It is about finding cost that neither of you needs to pay.

✓ Myth and fact

✗ **MYTH** Cost reduction means squeezing suppliers.

✓ **FACT** Lasting savings come from changing the cost itself: the design, the material, the process, the logistics. Squeezed suppliers take it back later.

TIP OF THE DAY Put this week's 1% idea on a sticky note on your monitor. Replace it only when it is banked.

✓ Your action tasks

- ■ Work out what 1% of your materials, overheads and labour cost is worth in pounds.
- ■ Calculate how much extra sales you would need to earn the same profit.
- ■ Share the three rules with your leadership team.
- ■ Choose who will lead the 1% programme.

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FUN FACTS

- Improve by 1% a day for a year and the arithmetic gives you a result nearly 38 times better (1.01 to the power of 365).
- “Kaizen”, the Japanese word behind continuous improvement, simply means “change for the better”.

Section 1 in one page

- A steady run of 1% savings beats one big programme.
- One percent off cost is many percent on profit.
- Use all five levers, not only price.
- Never trade quality for cost.
- A saving counts only when it is banked.

11.5%

more profit from a 1% saving across materials, overheads and labour in the illustrative 5m-turnover company.

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02

Know your cost: the cost map

You cannot improve what you have not laid out. How to build a one-page map of where the money goes and choose where to dig first.

In this section

- Build the map in four steps
- Read the map
- Cost element analysis
- Choose where to dig
- Getting the data out
- The abc view
- Prices that drift
- Worked example: reading one supplier line
- **Worksheet 2: Our cost map**
- Questions to ask your finance lead
- Common objections, myth and fact, tip of the day, action tasks and fun facts
- Section 2 in one page

Ask most SME owners what their biggest cost is and they will answer correctly: materials. Ask which twenty parts make up most of that spend, who supplies them and when each price was last tested, and the room goes quiet. The cost map fixes that in a few days.

Where to dig first

Vertical: size of the prize. Horizontal: ease of getting it.

High	**Schedule as a project**	**Start here**
Low	Ignore	Do when convenient
	Hard	Easy

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Build the map in four steps

1. **Pull twelve months of spend.** Every purchase invoice from the accounts system, with supplier, description and value. Do not clean it yet.
2. **Group it.** Sort into no more than twelve categories that make sense for your business: for example metals, plastics, electrical, fasteners, packaging, subcontract processes, freight, energy, premises, IT, professional fees, everything else.
3. **Rank it.** List categories and suppliers from largest to smallest. Mark the 20% of lines that make up roughly 80% of the spend.
4. **Add three facts to each large line.** When was the price last reviewed? How many suppliers could do this? Is there a contract, and when does it end?

Read the map

What you see	What it usually means	First move
A large line not reviewed for two years or more	The price reflects an old market	Benchmark it and ask for a fresh quotation
One supplier, no alternative	Dependency, and no pressure on price	Qualify a second source (Section 5)
Many suppliers for the same category	Volume is fragmented and nobody values your business	Consolidate to two or three
A long tail of small invoices	High processing cost and no control	Bundle, catalogue or use a purchasing card
Freight and expediting growing faster than sales	Planning problems being paid for in logistics	Fix the cause in planning and stock (Section 7)
Prices that only ever go up	Index increases passed on, decreases kept	Agree a formula that moves both ways

> ***“When everyone can see that six suppliers make up half the spend, conversations change.”***

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Cost element analysis

For your top ten parts or materials, go one level deeper. Break the price into its elements: raw material, conversion, overhead, the supplier's margin, packaging and freight. You will not get it exactly right and you do not need to. The point is to see which element is large enough to be worth attacking. If raw material is 70% of a part's price, negotiating the supplier's margin is the wrong fight. Changing the material, the yield or the weight is the right one.

Choose where to dig

Score each opportunity on two things: the size of the prize and the ease of getting it. Start with the big and easy. Schedule the big and hard as projects. Ignore the small and hard altogether.

> **ONE PAGE, ON THE WALL**
> Print the cost map on a single page and put it where the leadership team meets. When everyone can see that six suppliers make up half the spend, conversations change without anyone being told to change them.

- Twelve months of spend extracted and grouped.
- Top 20% of lines identified.
- Review date, supplier count and contract status added.
- Top ten parts broken into cost elements.
- First five opportunities chosen and owned.

Going deeper: getting the data out

Almost every accounting system can export purchase invoices to a spreadsheet with the supplier, date, description, nominal code and value. That export is enough. Resist the urge to clean it first. Add one column called category and fill it in for the largest lines, working down until you have covered about 80% of the value. Group the rest as “tail”. A cost map built this way takes one person a day or two.

A typical spend pattern (illustrative)



Illustrative shape. Your own data will show your real pattern.

- Use the same twelve months as your last set of accounts, so the totals can be checked.

- Exclude wages and tax. They are mapped separately.
- Where one supplier covers several categories, split it roughly. Precision is not the aim.
- Keep the file. Next year you will compare against it.

Going deeper: the ABC view

Sort the lines by value and mark them A, B or C. The A items are the few that make up most of the spend and deserve individual attention: should-cost, negotiation, design review. The B items are managed by category. The C items, the long tail, are managed by process: fewer suppliers, simpler ordering, less administration. The mistake is to manage everything the same way, which means too little attention on A and too much on C.

Going deeper: prices that drift

While the data is open, pick ten parts you buy regularly and plot the price paid on each order over two years. You will usually find some that crept up with no letter and no conversation. Ask the supplier, politely, for the reason for each increase. The answers start useful conversations.

= Worked example: reading one supplier line

Illustrative. The cost map shows 240,000 a year with one fabrication supplier, last formally reviewed three years ago, no alternative qualified, no contract.

Question	Finding	Move
Is the price current?	Steel has fallen since the last review; the price has not	Ask for a price formula linked to a steel index
Is there an alternative?	Two capable local firms identified	Qualify one as a second source for 20% of volume
Is the design right?	Three near-identical brackets	Combine into one part

Three different levers on one line, none of which is a demand for a discount.

Worksheet 2: Our cost map

List categories from largest to smallest. Print or photocopy this page.

Category	Annual spend	% of total	No. of s uppliers	Last reviewed	Contract ends	Owner

? Questions to ask your finance lead

1. Can we export twelve months of purchase invoices by supplier?
2. Which twenty suppliers make up most of the spend?
3. Which large lines have no purchase order or contract?
4. Where have prices risen without a recorded reason?
5. How many suppliers did we pay fewer than five times last year?
6. What does it cost us to process one purchase invoice?
7. Which costs do not have a named owner?

! Common objections

What you may hear	A straight answer
“Our data is too messy to analyse.”	Messy data still shows who the biggest suppliers are. Start there and clean only what you need.
“We know our suppliers well. We do not need a map.”	Knowing them is not the same as seeing them ranked on one page with review dates beside them.
“This will take weeks.”	It takes a day or two. The first version is meant to be rough.

✓ Myth and fact

✗ **MYTH** We already know where our money goes.

✓ **FACT** Most owners know the categories. Few can name their top twenty lines, who supplies them and when each price was last tested.

TIP OF THE DAY Start the cost map with raw invoice data. Cleaning it first is how the job never gets finished.

✓ Your action tasks

- ■ Ask accounts for twelve months of purchase invoices by supplier.
- ■ Group the spend into no more than twelve categories and rank them.
- ■ Add the last review date, number of possible suppliers and contract end date to the top 20 lines.

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■ Print the map on one page and put it on the meeting-room wall.

FUN FACT

The 80/20 rule is named after the Italian economist Vilfredo Pareto, who noticed in the 1890s that about 80% of Italy's land was owned by about 20% of its people.

Section 2 in one page

- Export twelve months of spend and group it.
- Find the 20% of lines that make up 80% of the value.
- Add review date, supplier count and contract status.
- Manage A, B and C items differently.
- Put the map on one page where the team can see it.

80/20

About a fifth of your purchase lines will make up about four fifths of your spend. Find them first.

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03

BOM: design and specification savings

The largest savings are decided on the drawing. How to challenge the bill of materials without compromising the product.

In this section

- Six questions for every expensive part
- Where BOM savings hide
- Run a value engineering session
- Protect the product
- Function before form
- Design for manufacture
- Who should own bom cost
- Worked example: one bracket, three questions
- **Worksheet 3: Value engineering record**
- Questions to ask your design engineers
- Common objections, myth and fact, tip of the day, action tasks and fun facts
- Section 3 in one page

By the time a part reaches purchasing, most of its cost has already been fixed by the person who drew it. Material, thickness, tolerance, finish and the number of operations are all design decisions. That is why the bill of materials, the BOM, is the first place to look for savings and the place most cost programmes never reach.

Six questions for every expensive part

1	2	3	4	5	6
Function?	Customer value?	Material?	Tolerance?	Simplify?	Process?

Six questions for every expensive part

Question	What you are looking for
What does this part do?	State the function in two words. If nobody can, the part may not be needed.
What does the customer value about it?	Separate what is required, what is appreciated, and what nobody would miss.
Why this material and grade?	A standard or locally available grade may do the same job.
Why this tolerance and finish?	Tight tolerances and cosmetic finishes on hidden faces are common and costly.
Can it be combined, simplified or made standard?	Fewer parts, fewer fasteners, shared parts across products.
Is the process the right one for the volume?	A fabricated part at high volume, or a tooled part at low volume, is money lost.

Where BOM savings hide

- **Over-specification.** A requirement copied from an old customer's standard that no current customer asks for.
- **Material yield.** Blank sizes and nesting that waste a fifth of the sheet. A small dimension change can save a full strip.
- **Weight.** Material is paid for by the kilo. Sections and thicknesses chosen for comfort, not calculation.
- **Variety.** Fifteen similar brackets where three would do. Each one carries stock, set-up and administration.
- **Bought-in assemblies.** Sub-assemblies priced as a lump, where nobody has seen the breakdown.
- **Packaging.** Often designed last and reviewed never.

> ***“Most of a part's cost is fixed by the person who drew it.”***

Run a value engineering session

Pick one product. Put the physical parts on a table with the BOM, the costs and the drawings. Invite design, production, purchasing, quality and, if you can, one trusted supplier. Spend half a day asking the six questions of the ten most expensive lines. Record every idea, then sort them into do now, test, and park. In my experience the supplier in the room produces the best ideas, because they have been making the part your way for years while knowing a better way.

Protect the product

- Any change touching safety, regulation or a customer-approved feature goes through formal change control and, where required, customer approval.
- Test before you commit. One sample batch and a proper validation costs little against a recall.
- Record the reason for the change on the drawing so the next engineer does not undo it.

> **ASK YOUR SUPPLIER ONE QUESTION**
> "If this were your product, what would you change to make it cheaper without making it worse?" Ask it on your next visit, of your three largest suppliers, and write down the answers. It is the cheapest consultancy you will ever buy.

On seating systems, the changes that paid were rarely dramatic: a material grade that was available locally instead of imported, a tolerance that had been tightened for a customer who was no longer in the room, two brackets combined into one. Each was worth a small percentage. Together, across a full seat, they were the difference between a product that lost on price and one that won.

Going deeper: function before form

The discipline of value engineering is to describe what a part does before discussing what it is. State the function as a verb and a noun: supports panel, seals joint, guides cable, resists corrosion. Then ask what is the least expensive way to perform that function to the standard the customer needs. Framed this way, a machined aluminium bracket that "supports panel" may become a folded steel one, a moulded one, or a feature on the panel itself.

When product cost is decided (commonly cited rule of thumb)



A widely used rule of thumb, shown for illustration. The exact split varies by product.

Going deeper: design for manufacture

- **Fewer parts.** Every part removed takes with it purchasing, stock, assembly and the chance of a defect.
- **Standard sizes.** Design to standard sheet, bar and tube sizes, and standard tooling.

- **Fewer set-ups.** A part that can be made in one clamping or one hit costs less and varies less.
- **Generous tolerances where function allows.** Each tightening of a tolerance band adds cost.
- **Common parts across products.** Volume concentrates and stock falls.
- **Design with the supplier's process in mind.** Ask them before the drawing is frozen, not after.

Going deeper: who should own BOM cost

In many SMEs nobody does. Design owns function, purchasing owns price and production owns making it. Give one person the job of owning the cost of each product's bill of materials, with authority to call the others together. Review the top ten lines of your best-selling product once a year as a fixed routine.

= Worked example: one bracket, three questions

Illustrative. A machined aluminium bracket costs 18.40 and is used 6,000 times a year.

Question	Finding	Change	New cost
Why this material?	Chosen for a previous, weight-critical customer	Folded mild steel, zinc plated	9.10
Why this tolerance?	Hole position tighter than the mating part needs	Tolerance opened	8.60
Can it be combined?	A separate spacer is always fitted with it	Spacer formed into the bracket	8.20 and one part fewer

Saving: about 61,000 a year, after a modest tooling and validation cost. The customer approved the change because function and strength were proven by test.

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Worksheet 3: Value engineering record

One row per idea from the session. Sort into do now, test or park. Print or photocopy this page.

Part	Function (verb and noun)	Idea	Estimated saving	Risk or approval needed	Decision	Owner

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? Questions to ask your design engineers

1. What is the function of this part, in two words?
2. Which requirements came from a customer we no longer supply?
3. Where did this tolerance come from?
4. Which features does the customer never see or use?
5. Which parts could be common across products?
6. What would you change if you were designing it again today?
7. Which changes would need customer approval?

! Common objections

What you may hear	A straight answer
“The customer approved it this way. We cannot change it.”	Customers approve changes every day when shown evidence and a share of the benefit. Ask.
“Engineering does not have time.”	Half a day on the top ten lines of one product. The return on that half day is hard to beat.
“It is only a few pence per part.”	Multiply by annual volume. Then by the number of similar parts.

✓ Myth and fact

✗ **MYTH** A cheaper design means a worse product.

✓ **FACT** Value engineering removes what the customer does not value. Done properly, the product performs the same and is often simpler to make.

TIP OF THE DAY Bring the physical part to the meeting. People challenge a part on the table far more readily than a line on a screen.

✓ Your action tasks

- ■ Pick one product and list its ten most expensive BOM lines.
- ■ Book a half-day value engineering session with design, production, purchasing and quality.
- ■ Invite one trusted supplier to that session.

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- Ask your three largest suppliers what they would change to make your part cheaper without making it worse.

FUN FACTS

- Value engineering was developed at General Electric during the Second World War, when material shortages forced engineers to find substitutes. Many of the substitutes turned out to be cheaper and just as good.
- The word “frugal” comes from the Latin “frux”, meaning fruit or value. Frugal originally meant useful and worthwhile, not mean.

Section 3 in one page

- Most cost is fixed on the drawing.
- Describe the function before challenging the part.
- Look for over-specification, poor yield, weight and variety.
- Involve a supplier in the session.
- Protect the product with testing and change control.

6 **questions for every expensive part: function, value, material, tolerance, simplify, process.**

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04

Sourcing: buying better

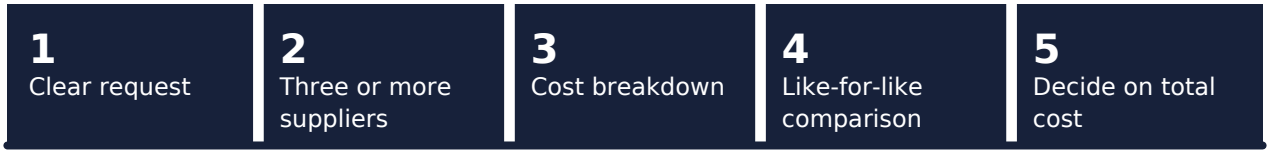
Should-cost thinking, a proper quotation process and negotiation based on facts, for businesses without a large purchasing team.

In this section

- Start with should-cost
- A quotation process that works
- Negotiate on facts
- Total cost of ownership
- Preparing for a negotiation
- Price formulas
- Payment terms
- Worked example: comparing three quotations
- **Worksheet 4: Should-cost builder**
- Questions to ask a supplier at the annual review
- Common objections, myth and fact, tip of the day, action tasks and fun facts
- Section 4 in one page

In many SMEs purchasing means placing orders. Sourcing is different. It is deciding what to buy, from whom, on what terms, with the evidence to know the price is right. You do not need a department for this. You need a method and a few hours a week.

A quotation process that works



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Start with should-cost

Before you ask anyone for a price, work out roughly what the part should cost. Take the material weight and price, add the process time at a sensible hourly rate, add overhead and a fair margin, add packaging and freight. The number will be imperfect. It still changes the conversation, because you are now discussing the gap between two calculations and not arguing about a number plucked from the air.

Element	How to estimate it	Typical lever
Raw material	Net weight plus scrap, at a published or quoted material price	Grade, yield, weight, index-linked pricing
Conversion	Cycle or process time multiplied by a machine and labour rate	Process choice, batch size, set-up reduction
Overhead and margin	A percentage reasonable for that type of supplier	Volume commitment, payment terms, longer agreements
Tooling	One-off cost spread over expected volume	Ownership, tool life, shared tools
Packaging and freight	Quoted separately, not buried in the price	Pack density, returnable packaging, consolidated shipments

A quotation process that works

1. **Write a clear request.** Drawing, specification, annual volume, batch size, delivery point, quality requirements and the date you will decide.
2. **Ask at least three suppliers.** Include your current supplier and at least one new one.
3. **Ask for a breakdown.** Material, process, tooling, packaging and freight on separate lines.
4. **Compare like with like.** Put the answers side by side by element. The differences tell you where to probe.
5. **Decide on total cost.** Price, quality record, lead time, payment terms, stock holding and the cost of switching.

> ***"Trade, do not demand."***

Negotiate on facts

- Share your should-cost and ask the supplier to show where you are wrong. Often they will, and you will both learn something.

- Trade, do not demand. Offer what is cheap for you and valuable to them: forecast visibility, longer commitment, faster payment, simpler packaging, bigger batches.
- Agree how the price moves. A formula linked to a material index protects both sides and ends the annual argument.
- Leave them a living. A supplier with no margin cuts corners you will find later.

Total cost of ownership

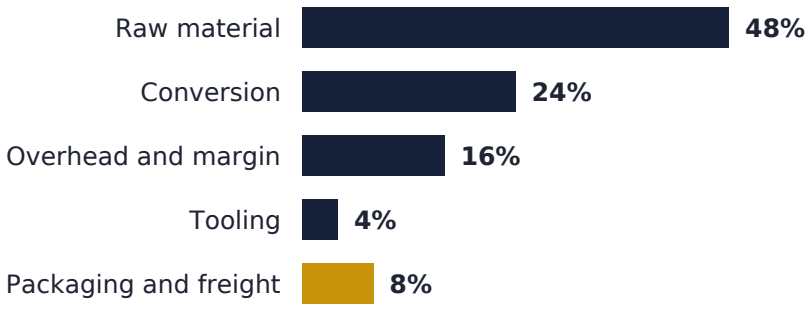
The cheapest unit price is frequently not the cheapest supply. Add up what the part really costs you: the price, the freight, the duty, the stock you must hold because of the lead time, the inspection you must do because of the quality, and the time your people spend chasing. Decide on that figure.

> **THE 1% ASK**
> At every annual review with a supplier, agree a joint target of at least 1% cost improvement for the coming year, found together through design, process, packaging or logistics, and shared. It is small enough to be accepted and regular enough to matter.

Going deeper: preparing for a negotiation

Most of a negotiation is decided before the meeting. Prepare one page with four things: your should-cost and where you are unsure of it, what you want and in what order, what you can offer that costs you little, and what you will do if there is no agreement. That last item, your alternative, is your real strength. If you have a qualified second source, you negotiate calmly. If you do not, your first job is to create one.

Illustrative should-cost of a fabricated part



Illustrative. The largest element is where to look first.

- Meet in person for anything important, ideally at the supplier's site.
- Open with facts and questions, not a target.

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- Listen for their constraints. Raw material, energy and batch size are usually genuine.
- Agree in principle, then confirm in writing the same day.
- Never bluff about alternatives you do not have.

Going deeper: price formulas

For material-heavy parts, an agreed formula removes the annual argument. The price is split into a material element, which moves with a published index at agreed intervals, and a conversion element, which is fixed for the term and subject to the joint 1% improvement target. Both sides can check the calculation. Increases are justified and decreases are automatic.

Going deeper: payment terms

Payment terms are a cost to someone. Stretching terms on a small supplier may save you a little interest and cost them a great deal. Paying reliably and on time is worth real money to suppliers, and many will give a better price for it. Decide your terms as a deliberate trade, not a habit, and respect any rules that protect small suppliers.

= Worked example: comparing three quotations

Illustrative, price per part.

Element	Supplier A (current)	Supplier B	Supplier C
Material	4.90	4.60	4.70
Conversion	3.10	2.40	2.90
Overhead and margin	1.60	1.50	1.20
Packaging and freight	0.60	0.90	0.50
Total	10.20	9.40	9.30

The totals are close. The breakdown shows that B has a faster process and C a leaner overhead. The current supplier, shown the comparison, proposes a process change and reaches 9.50. With their quality record and no switching cost, they keep the work. The buyer saves 7% without changing supplier.

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✎ Worksheet 4: Should-cost builder

One sheet per part. Estimates are fine. Note where each number came from. Print or photocopy this page.

Element	Our estimate	Basis	Supplier's figure	Difference and why
Raw material, including scrap				
Process 1: time and rate				
Process 2: time and rate				
Finishing				
Overhead and margin				
Tooling per part				
Packaging				
Freight				
Total				

? Questions to ask a supplier at the annual review

1. What has changed in your costs this year, up and down?
2. Which of our requirements cost you most to meet?
3. What would you change about our drawings or packaging?
4. What batch size and schedule would suit your plant best?
5. Where do our orders cause you waste?
6. What could we commit to that would let you invest?
7. What is our joint 1% target for next year?

! Common objections

What you may hear	A straight answer
"We do not have the time to build should-costs."	Do it for the ten largest parts only. An hour each is enough for a useful estimate.
"Suppliers will not share their cost breakdown."	Many will if you share your estimate first and show you are looking for joint savings.
"Changing supplier is too risky."	Often true, which is why the aim is a better deal with a good supplier, backed by a real alternative.

✓ Myth and fact

✗ **MYTH** Three quotations guarantee the best price.

✓ **FACT** Three quotations tell you the cheapest of three. Only a should-cost tells you whether any of them is right.

TIP OF THE DAY Never open a negotiation with your target price. Open with your should-cost and ask where it is wrong.

✓ Your action tasks

- ■ Build a should-cost for your three highest-spend parts.
- ■ Issue a written request for quotation on one of them to at least three suppliers, asking for a cost breakdown.

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- List what you could offer suppliers in a trade: forecasts, longer commitment, faster payment.
- Add the 1% ask to the agenda of your next supplier review.

FUN FACT

"Negotiate" comes from the Latin "negotium", which literally means "not leisure". The Romans already knew it was work.

Section 4 in one page

- Sourcing is deciding what to buy, from whom, on what terms.
- Build a should-cost before asking for a price.
- Ask for a breakdown and compare by element.
- Trade what is cheap for you and valuable to them.
- Decide on total cost, not unit price.

3 + 1

Ask at least three suppliers, and always include your current one. They often have the best idea.

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05

The supplier base and low-cost country sourcing

How many suppliers you need, when a second source pays, and how to judge whether sourcing from India or another lower-cost region makes sense.

In this section

- Fewer, better, and not alone
- When lower-cost sourcing makes sense
- Compare on landed cost
- Doing it safely
- Segmenting your suppliers
- Making an overseas source work
- Why india
- Worked example: landed cost comparison
- **Worksheet 5: Landed cost comparison**
- Questions to ask an overseas supplier before a trial order
- Common objections, myth and fact, tip of the day, action tasks and fun facts
- Section 5 in one page

A supply base grows by accident. A supplier is added for an urgent job and never removed. Ten years later there are three hundred accounts, and the top twenty do nearly all the work. Shaping the supplier base on purpose is one of the quieter ways to find 1%.

80%+
of world goods trade by volume moves by sea

6 to 10 weeks
of extra stock when sourcing by sea

3 batches
good in a row before you switch source

Fewer, better, and not alone

- **Consolidate the tail.** Move small, scattered spend to suppliers who already serve you well. You gain price leverage and lose administration.
- **Dual-source what could stop you.** For any part that would halt production, hold a qualified second source, even at a small share.
- **Segment your suppliers.** A few strategic partners get your time, your forecasts and your engineers. The rest get a clear, efficient process.
- **Review the top ten twice a year.** Quality, delivery, cost and ideas, with the supplier's senior person present.

When lower-cost sourcing makes sense

Sourcing from India or another lower-cost country is a strong lever for the right parts and a distraction for the wrong ones. It suits parts with high labour or process content, stable designs, predictable demand and enough annual value to justify the effort. It does not suit parts that change every month, are needed tomorrow, or are so light on labour that the saving disappears in freight.

> ***“Resilience is a saving you cannot see until the day you need it.”***

Compare on landed cost

The quoted price from an overseas supplier is the beginning of the sum. Compare suppliers on landed cost, which is everything it takes to have a good part on your shelf.

Landed cost element	Notes
Ex-works price	With the breakdown from Section 4
Export packing and inland freight	Sea-worthy packing costs more than domestic
Sea or air freight and insurance	Volatile. Use an average over a year, not today's rate
Import duty and clearance	Check whether a trade agreement lowers the duty and what proof of origin you need
Stock in transit and safety stock	Six to ten weeks of extra inventory has a financing and storage cost
Quality assurance	Source inspection, sampling, travel, and an allowance for the first batches
Tooling and qualification	One-off cost spread over a realistic volume
Management time	Someone has to own the supplier. Cost that time honestly

As a rule of thumb I look for a landed-cost saving comfortably in double digits before recommending a move, because the first year always contains surprises. Trade agreements can change the duty line for many goods, so check the current rate for your product code and your country before you run the numbers.

Doing it safely

1. Start with one part family, not the whole BOM.
2. Qualify the supplier in person or through someone you trust on the ground.
3. Own your tooling and say so in the contract.
4. Run the new source alongside the existing one until three good batches have arrived.
5. Keep a local source for urgent and low-volume needs.

> **RESILIENCE IS A SAVING**
> A second source in a different region rarely shows as a saving in the accounts until the day your first source cannot deliver. Value it before that day.

The seating programme described in Book 01 is the clearest example I can give. The parts were well documented, the volumes were predictable and the labour and process content was high, which is exactly the profile that suits Indian sourcing. Localising the full system took the business from €400,000 to €2.8 million of turnover in two years, and the saving held because the suppliers had been developed rather than squeezed.

Going deeper: segmenting your suppliers

Not every supplier deserves the same attention. Sort them on two questions: how much do we spend with them, and how hard would they be to replace?

Supplier segments

Vertical: annual spend. Horizontal: ease of replacing them.

High	**Strategic: partner closely**	**Leverage: compete and consolidate**
Low	Critical: secure supply	Routine: simplify
	Hard	Easy

Segment	Typical example	How to manage
Strategic: high spend, hard to replace	A casting or electronics partner with dedicated tooling	Senior relationship, shared forecasts, joint improvement, a contingency plan
Leverage: high spend, easy to replace	Sheet metal, standard machining	Competitive quotations, formulas, consolidation
Critical: low spend, hard to replace	A special coating or a single-source component	Secure supply, hold stock, develop an alternative
Routine: low spend, easy to replace	Consumables, stationery, standard fasteners	Simplify ordering, minimise administration

Going deeper: making an overseas source work

- **Start with a family, not a part.** A group of similar parts shares tooling logic, a supplier and a container.
- **Agree the shipping terms in writing.** Know exactly where your responsibility for cost and risk begins.
- **Plan the pipeline.** Sea freight means weeks of stock in transit. Order to a rolling forecast and hold safety stock until the route is proven.
- **Inspect at source.** A defect found before shipping costs a day. Found after arrival it costs weeks.
- **Keep someone local.** A person who can visit the supplier is the best quality system there is.
- **Check duty and origin with your customs adviser.** Trade agreements can change the sums, with conditions.

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Going deeper: why India

I am biased, because helping companies source from India is what I do. But the reasons are practical: a deep engineering supply base, engineers who work in English, strength in the labour-intensive and process-heavy parts where European costs are highest, and improving trade terms with both the UK and the EU. It suits stable, well-documented parts with real annual value. It does not suit everything, and a good adviser will tell you which of your parts to leave where they are.

= Worked example: landed cost comparison

Illustrative figures per part. Check duty and freight for your own product and date.

Element	Current local source	Indian source
Ex-works price	20.00	12.50
Packing and inland freight	0.40	0.70
Sea freight and insurance	nil	1.30
Duty and clearance	nil	0.50
Extra stock holding	nil	0.60
Source inspection and management	0.20	0.90
Tooling and qualification, spread	nil	0.50
Landed cost	20.60	17.00

A 37% lower price becomes a 17% landed saving. Still well worth having on the right volume, and a far more honest basis for the decision.

✎ Worksheet 5: Landed cost comparison

Complete one column per source. Use annual averages for freight. Print or photocopy this page.

Element	Current source	Alternative 1	Alternative 2
Ex-works price			
Export packing and inland freight			
Freight and insurance			
Duty and clearance			
Stock in transit and safety stock			
Quality assurance and travel			
Tooling and qualification, per part			
Management time			
Landed cost			

? Questions to ask an overseas supplier before a trial order

1. Which customers in our country do you already supply?
2. What shipping terms are you quoting on?
3. What is your lead time from order to ready for shipment?
4. How will you pack for sea freight?
5. Who owns the tooling, and where is that written?
6. How do you handle a rejected batch?
7. Can our representative inspect before shipment?

! Common objections

What you may hear	A straight answer
"We tried overseas sourcing once and it was a disaster."	Usually the wrong part, no local presence or no validation. The method matters more than the country.
"Our volumes are too small."	Sometimes true. Group similar parts into a family and look at the annual value, not the batch.
"Lead times are too long for us."	They are, for parts that change weekly. Keep those local and move the stable ones.

✓ Myth and fact

✗ **MYTH** Overseas sourcing is always cheaper.

✓ **FACT** Only on landed cost, and only for the right parts. Freight, duty, stock and management time can remove the whole saving.

TIP OF THE DAY Ask a new overseas supplier for references from customers in your own country, and call them.

✓ Your action tasks

- ■ Count your active suppliers and how many account for 80% of spend.
- ■ List every part that would stop production if its supplier failed, and mark which have a second source.

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- Choose one part family and calculate its landed cost from an overseas source using the table.
- Schedule twice-yearly reviews with your top ten suppliers.

FUN FACTS

- The modern shipping container made its first voyage in 1956, on a converted tanker sailing from New Jersey to Texas. It cut the cost of loading a ship so sharply that it reshaped world trade.
- More than 80% of world goods trade by volume travels by sea.

Section 5 in one page

- Shape the supplier base on purpose.
- Dual-source anything that could stop production.
- Segment suppliers and manage each segment differently.
- Compare sources on landed cost.
- Start overseas sourcing with one part family and a person on the ground.

17%

In the illustrative example a 37% lower price became a 17% landed saving. Always compare on landed cost.

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06

Overheads and indirect spend

The costs nobody owns: energy, premises, freight, insurance, software, services. A simple routine to bring them under control.

In this section

- Where to look
- The subscription and contract audit
- Give every cost an owner
- Spend that should not be cut
- Energy in three steps
- Freight
- The tail
- Worked example: a subscription and contract audit
- **Worksheet 6: Recurring payments register**
- Questions to ask each overhead owner
- Common objections, myth and fact, tip of the day, action tasks and fun facts
- Section 6 in one page

Direct materials have a buyer watching them. Overheads usually do not. They renew automatically, sit on direct debits and are signed off by whoever happens to be near. That is why indirect spend, though smaller than materials, is often the easiest place to find the first 1%.

90 days notice in the diary before every renewal	**1 owner** for every overhead category	**12 a year** one cost line challenged each month

Where to look

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Category	Common finding	Frugal action
Energy	Out-of-contract rates, compressed air leaks, machines idling overnight	Tender the contract before renewal, walk the site at night, fix leaks, meter the big users
Freight and couriers	Many carriers, premium services by default, part loads	Consolidate carriers, set a default service level, plan shipments by day
Premises	Paying for space filled with obsolete stock	Clear, sublet or renegotiate at the break point
Software and IT	Licences for people who left, overlapping tools	Audit users twice a year, cancel duplicates
Insurance	Auto-renewed with no market test	Go to market every two or three years with a clean risk story
Professional services	Open-ended fees, work that could be done in-house	Fixed scopes and fees, review what is outsourced
Consumables and maintenance	Hundreds of small orders, no agreed prices	A catalogue with two or three suppliers and agreed prices
Finance costs	Card fees, bank charges, early-payment discounts missed	Review charges annually, take discounts worth taking

The subscription and contract audit

Once a year, list every recurring payment leaving the bank account. For each, write the owner, the renewal date, the notice period and whether it is still needed. Most businesses find payments nobody can explain. Put the renewal dates in a shared calendar ninety days ahead, so that renewals become decisions.

> ***“A cost with no owner only goes up.”***

Give every cost an owner

A cost with no owner only goes up. Assign each overhead category to a named manager with a simple brief: know what we spend, know when it renews, and bring one improvement a year. This takes an hour to set up and changes behaviour for good.

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Spend that should not be cut

Frugal is not the same as mean. Maintenance that prevents breakdowns, training that reduces scrap, calibration, safety, and the marketing that brings enquiries are investments. Cutting them produces a good quarter followed by a bad year. Test every proposed cut with one question: what will this cost us later?

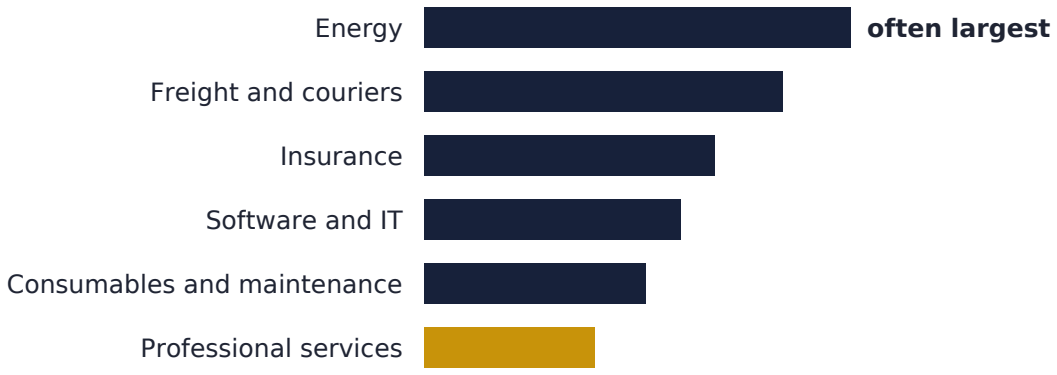
> **THE ZERO-BASED HOUR**
> Take one overhead line each month and spend an hour asking: if we were starting the business today, would we buy this, from this supplier, at this level? Twelve lines a year is enough to cover everything that matters.

- All recurring payments listed with owner and renewal date.
- Energy contract and usage reviewed.
- Freight carriers and service levels reviewed.
- Software licences matched to current staff.
- Insurance market-tested within the last three years.
- One overhead line challenged each month.

Going deeper: energy in three steps

1. **Measure.** Read the main meter at the same time each day for two weeks, including a weekend. The overnight and weekend figure is your base load: what the site uses when it is making nothing.
2. **Eliminate.** Walk the site out of hours with the maintenance lead. Compressors, extraction, ovens, lighting and chillers left running are the usual finds. Fix compressed air leaks, which are constant and expensive.
3. **Then buy better.** Only once usage is under control, go to market for the supply contract well before renewal.

Where overhead reviews usually find savings (illustrative ranking)



An illustrative ranking from experience, not a survey. Your own cost map decides the order.

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Going deeper: freight

Freight cost is driven by three things you control: how full the vehicle is, how urgent the shipment is, and how many carriers you spread it across. Review a month of freight invoices and mark each shipment as planned or urgent. If more than a small share is urgent, the saving is in planning, not in the carrier's rate. Fix delivery days by customer where you can, and agree a default service level so that premium services need a reason.

Going deeper: the tail

Low-value purchases cost more to process than they are worth. Each one needs a request, an order, a delivery check, an invoice match and a payment. Reduce the number of transactions: agree a catalogue with two or three suppliers for consumables, use a purchasing card with sensible limits for small items, and have monthly consolidated invoices. The saving is in time, and time is the overhead most SMEs are shortest of.

= Worked example: a subscription and contract audit

Illustrative findings from listing every recurring payment.

Finding	Action	Annual value
Design software licences for four people who had left	Cancelled	6,400
Two overlapping file-sharing services	Kept one	1,100
Waste collection auto-renewed for three years	Re-tendered	2,300
Telephone lines to a closed unit	Cancelled	900
Insurance renewed without a market test	Broker asked to tender	3,800
Total		14,500

Half a day's work, and none of it affected a customer.

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✎ Worksheet 6: Recurring payments register

List everything that leaves the bank automatically or renews annually. Print or photocopy this page.

Payment	Supplier	Annual cost	Owner	Renewal date	Notice period	Still needed?

? Questions to ask each overhead owner

1. What do we spend on this in a year?
2. When does it renew, and what notice is needed?
3. When was it last compared with the market?
4. Who uses it, and how much?
5. What would happen if we stopped it?
6. What is one improvement you can bring this year?

! Common objections

What you may hear	A straight answer
“These are small numbers.”	Individually. Together overheads are often a fifth of sales, and savings here need no customer approval.
“We cannot switch supplier. It is too disruptive.”	You rarely need to. A market comparison before renewal usually improves the deal with the current one.
“Cutting overheads damages the business.”	Cutting investment does. Removing payments for things nobody uses does not.

✓ Myth and fact

✗ **MYTH** Overheads are fixed costs.

✓ **FACT** Almost every overhead has a renewal date, and anything that renews can be challenged, re-tendered or reduced.

TIP OF THE DAY Walk the factory with the lights off after the last shift. Whatever is humming is costing you money.

✓ Your action tasks

- ■ List every recurring payment leaving the bank, with owner and renewal date.
- ■ Put renewal dates in a shared calendar 90 days ahead.
- ■ Walk the site one evening after the last shift and note everything still running.
- ■ Assign a named owner to each overhead category.

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FUN FACT

Compressed air is often called industry's “fourth utility”, after electricity, gas and water. It is also one of the most expensive, because most of the electricity a compressor uses ends up as heat.

Section 6 in one page

- Overheads are the costs nobody owns.
- List every recurring payment once a year.
- Reduce usage before negotiating price.
- Give every cost a named owner.
- Protect the spend that prevents bigger costs later.

90 days **before every renewal is when the decision should be made. After that, the supplier decides for you.**

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07

Operations: waste, stock and the cost of quality

Savings inside your own four walls: time, scrap, inventory and the hidden factory that fixes mistakes.

In this section

- See the waste
- Stock is cash on a shelf
- The cost of quality
- Involve the people who do the work
- The bottleneck
- Set-up time
- Workplace organisation
- Measuring scrap honestly
- Worked example: the cost of quality in one number
- **Worksheet 7: Process walk**
- Questions to ask your operators
- Common objections, myth and fact, tip of the day, action tasks and fun facts
- Section 7 in one page

Every factory has two plants inside it. One makes product. The other, the hidden factory, makes rework, sorts suspect parts, expedites late orders and looks for missing material. You pay for both. The 1% approach to operations is to shrink the second without spending capital on the first.

One problem at a time

1	2	3	4	5
Walk the process	Pick the biggest loss	Find the main cause	Fix it	Pick the next

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See the waste

Walk one product from goods-in to despatch and write down everything that happens to it. Then mark each step as adding value, meaning the customer would pay for it, or not. Most first walks find that the product is worked on for a small fraction of the time it spends in the building. The rest is waiting, moving, counting and correcting.

Waste	What it looks like	A 1% move
Waiting	Jobs queued at one machine, operators waiting for material or instructions	Balance the bottleneck, stage kits before the shift
Movement and transport	Parts crossing the factory three times	Move two processes next to each other
Over-production	Making a month's worth because the set-up is long	Reduce set-up time, make to demand
Over-processing	Finishing or inspecting beyond the requirement	Agree the standard and stop there
Defects and rework	Scrap bins, rework benches, sorting	Find the top cause and fix that one
Inventory	Racks of slow and obsolete stock	Sell, scrap or use it, then stop buying it

Stock is cash on a shelf

- Sort stock into fast, slow and dead. Dead stock gets a decision this month.
- Set reorder levels from actual usage and lead time, and review them when either changes.
- Ask key suppliers to hold stock or deliver more often in smaller lots.
- Count the things that matter often, and the things that do not rarely.

Holding stock costs far more than the interest on the money. Space, handling, damage, obsolescence and insurance add to it. A business that frees a tenth of its inventory has usually found more cash than a year of price negotiation.

> ***“Every factory has a second, hidden factory that makes rework.”***

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The cost of quality

Add up what poor quality costs you in a year: scrap, rework hours, sorting, returns, warranty, premium freight to recover late deliveries, and the time managers spend on complaints. For many SMEs it is several percent of sales and nobody has ever seen it as one number. Then spend your effort upstream, on prevention: clear work instructions, first-off checks, mistake-proof fixtures and supplier process control. Prevention is the cheapest quality cost there is.

Involve the people who do the work

Operators see waste every day and are rarely asked. A ten-minute stand-up at the start of the shift with one question, “what got in your way yesterday?”, will produce more practical ideas than a consultant's report. Act on one idea a week and tell people what you did.

> **ONE PROBLEM, ONE CAUSE, ONE FIX**
>
> Do not launch a programme. Pick the single largest source of scrap or delay this month, find its main cause with the people involved, and fix that. Then pick the next. That is 1% better in practice.

Going deeper: the bottleneck

In every factory one process limits how much the whole plant can ship. An hour lost there is an hour lost for the business. An hour saved anywhere else is, for now, worth very little. Find the bottleneck by looking for where work queues, then protect it: never let it wait for material or an operator, never run defective parts through it, and reduce its set-up time before spending on anything else.

Where a product spends its time in the factory (illustrative)



Illustrative of a typical first process walk. Measure your own.

Going deeper: set-up time

Long set-ups force large batches, and large batches create stock, hide defects and lengthen lead times. Film one changeover and watch it with the operators. Separate what must be done while the machine is stopped from what could be prepared beforehand: tools at the machine, the next job's material staged, settings recorded instead of rediscovered. It is common to halve a changeover with no capital spend, simply by preparing before the machine stops.

Going deeper: workplace organisation

A tidy, labelled workplace is not about appearance. It makes problems visible. When every tool has a marked place, a missing tool is noticed. When stock has a marked maximum, over-production is noticed. Start with one cell. Remove what is not needed, give everything a place, mark it, and agree a five-minute check at the end of each shift. Then let that team help the next.

Going deeper: measuring scrap honestly

Record scrap by cause, not only by quantity, at the point it happens. A simple tally sheet at each process is enough. After a month, one or two causes will stand out. Work on those and ignore the rest until they are fixed.

= Worked example: the cost of quality in one number

Illustrative annual figures for a 5m-turnover manufacturer.

Item	Annual cost
Scrap material	38,000
Rework labour	27,000
Sorting and extra inspection	12,000
Customer returns and credits	15,000
Premium freight to recover late orders	9,000
Management time on complaints	14,000
Total	115,000, or 2.3% of sales

Nobody had seen the total before. The top cause of scrap, a worn fixture, was replaced for 1,800.

General guidance only. Not legal, tax or financial advice.

✎ Worksheet 7: Process walk

Follow one product from goods-in to despatch. One row per step. Print or photocopy this page.

Step	What happens	Time taken	Adds value? (Y/N)	Waste seen	Idea
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

General guidance only. Not legal, tax or financial advice.

? Questions to ask your operators

1. What got in your way yesterday?
2. What do you wait for most often?
3. Which job do you dislike setting up, and why?
4. Where do defects usually come from?
5. What do you have to look for that should be to hand?
6. If it were your factory, what would you change first?

! Common objections

What you may hear	A straight answer
“We need a new machine to increase output.”	Possibly. First check how many hours the bottleneck actually runs good parts in a week.
“Our scrap rate is normal for the industry.”	Normal is what your competitors also pay for. Every point below it is profit.
“The operators will not engage.”	They engage when one of their ideas is acted on within a week. Start with one.

✓ Myth and fact

✗ **MYTH** Better quality costs more.

✓ **FACT** Poor quality costs more. Scrap, rework, returns and premium freight are paid for every month. Prevention is the cheapest quality cost there is.

TIP OF THE DAY Ask operators what got in their way yesterday, and fix one answer before the end of the week.

✓ Your action tasks

- ■ Walk one product from goods-in to despatch and mark each step as adding value or not.
- ■ Sort your stock into fast, slow and dead, and make a decision on the dead stock this month.
- ■ Add up last year's scrap, rework, returns and premium freight as one cost-of-quality figure.

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■ Start a ten-minute daily stand-up asking “what got in your way yesterday?”

FUN FACTS

- Toyota's Taiichi Ohno is said to have drawn a chalk circle on the factory floor and asked managers to stand in it for hours, simply watching, until they could see the waste for themselves.
- “Poka-yoke”, the Japanese term for mistake-proofing, was coined by the engineer Shigeo Shingo.

Section 7 in one page

- Every factory has a hidden factory that fixes mistakes.
- Walk the process and separate value from waste.
- Protect the bottleneck and shorten set-ups.
- Stock is cash on a shelf.
- Fix one cause at a time, with the people who do the work.

1 cause **at a time. The single biggest source of scrap this month is the only quality project you need.**

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08

CAPEX: buying equipment the frugal way

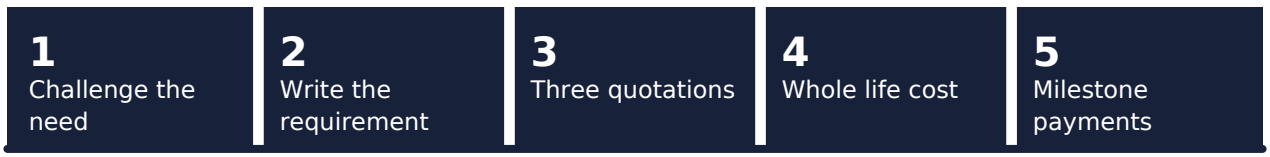
Machines, tooling and facilities are bought rarely and often badly. A buying process that protects cash and avoids expensive regrets.

In this section

- Before you ask for a quotation
- Compare the whole life cost
- Widen the options
- Negotiate the package
- Tooling is CAPEX too
- A simple business case
- Writing the specification
- Buying from further afield
- After installation
- Worked example: three options compared
- **Worksheet 8: Whole life cost comparison**
- Questions to ask a machine supplier
- Common objections, myth and fact, tip of the day, action tasks and fun facts
- Section 8 in one page

Capital purchases are where SMEs are most exposed. They are large, infrequent, technically complex and usually bought under time pressure from a salesperson who does this every week. A structured approach to CAPEX sourcing routinely saves far more than 1%, and prevents the purchase you would otherwise regret for ten years.

The frugal CAPEX process



Before you ask for a quotation

1. **Challenge the need.** Can the existing machine do more with a second shift, faster changeovers or better maintenance? Could a subcontractor absorb the peak?
2. **Write the requirement, not the solution.** Describe the parts, volumes, tolerances and cycle times you need. Let suppliers propose how.
3. **Set the business case.** What does it save or earn, and how quickly does it pay back? If the answer is unclear, wait.

Compare the whole life cost

Cost element	Questions to ask
Purchase price	What is included? Tooling, guarding, software, delivery, installation?
Installation and commissioning	Foundations, power, air, extraction, who pays for what?
Training	How many people, how many days, repeated for new starters?
Running costs	Energy, consumables, tooling wear, floor space
Maintenance and spares	Service contract cost, spares prices and availability, response time
Software and upgrades	Annual licence fees, cost of future updates
Downtime risk	Where is the nearest engineer? Who else nearby runs this machine?
Resale value	What is a ten-year-old example worth?

Widen the options

- **New, from more than one region.** Capable machine builders exist in Europe, India, Taiwan, Korea and elsewhere. Compare at least three on whole life cost and local support.
- **Used or refurbished.** For proven technology, a refurbished machine with a warranty can do the job at a fraction of the price.
- **Lease or rent.** Protects cash and suits uncertain demand. Compare the total paid against purchase.
- **Subcontract.** If utilisation would be low, buying capacity by the hour is often the frugal answer.

> ***“Fix spares and service prices at the time of purchase, when you have leverage.”***

Negotiate the package

- Tie payments to milestones: order, factory acceptance, delivery, and final acceptance on your site running your parts.
- Agree acceptance criteria in writing: cycle time, capability and uptime over a trial run.
- Fix spares prices and service rates for three to five years at the time of purchase, when you have leverage.
- Ask for training, a starter spares kit and extended warranty before asking for a lower price. They cost the seller less than they are worth to you.

Tooling is CAPEX too

Moulds, dies, jigs and fixtures are often approved without the scrutiny given to machines. Ask for tool cost breakdowns, guaranteed tool life, ownership in writing and the right to move the tool. Tooling sourced from lower-cost regions can save a great deal, provided trials and approval are done properly before it ships.

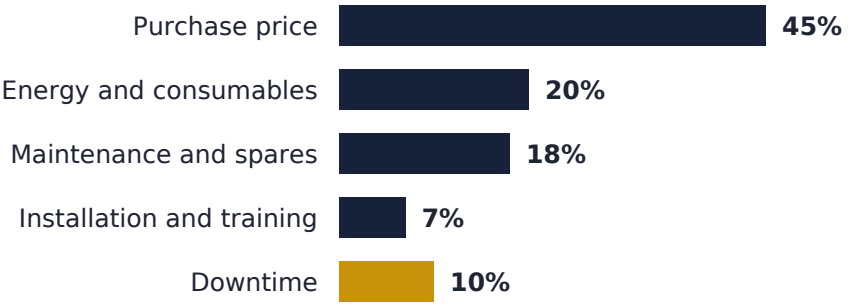
THE PAUSE THAT PAYS

Add a rule: no capital purchase above an agreed value is approved until three comparable quotations and a one-page whole life cost comparison are on the table. The delay is a week or two. The saving is routinely five figures.

Going deeper: a simple business case

A capital purchase should be justified in a few plain numbers that anyone on the board can follow. What will it cost in total, including installation, training and the first year's running costs? What will it save or earn each year, on a cautious estimate? How long until it has paid for itself? What happens to the case if volume is a fifth lower than planned? If the purchase still makes sense under the cautious view, proceed. Ask your accountant about financing and any tax treatment; that is their field, not mine.

Whole life cost of a machine over ten years (illustrative)



Illustrative. The purchase price is often less than half of what the machine will cost you.

Going deeper: writing the specification

- Describe the parts: sizes, materials, tolerances, finishes, annual volumes and batch sizes.
- State the required cycle time and the hours available.
- State the standards and safety requirements the machine must meet in your country.
- List the services available: power, air, floor loading, space.
- Ask suppliers to propose the solution and to list anything they have excluded.
- Ask for acceptance criteria to be included in the quotation.

Going deeper: buying from further afield

Machines, tooling and equipment from India and other lower-cost regions can offer excellent value, and I have helped clients source them. The checks are the same as for parts, with three additions: confirm that the equipment meets the safety and conformity requirements of your country, see it running and accepted at the maker's works before shipment, and make sure service and spares support exists near you. A low price with no engineer within reach is not a saving.

Going deeper: after installation

Six months after any significant purchase, compare what was promised in the business case with what has happened. It takes an hour and it makes the next business case better.

= Worked example: three options compared

Illustrative ten-year figures.

General guidance only. Not legal, tax or financial advice.

	New, premium brand	New, value brand	Refurbished
Purchase and installation	210,000	150,000	95,000
Running and maintenance	90,000	110,000	130,000
Estimated downtime cost	15,000	35,000	40,000
Resale value	minus 50,000	minus 20,000	minus 10,000
Whole life cost	265,000	275,000	255,000

The three are far closer than the purchase prices suggest. The decision then turns on local service support and risk, which is the right place for it.

✎ Worksheet 8: Whole life cost comparison

Complete for at least three options over the same number of years. Print or photocopy this page.

Cost element	Option 1	Option 2	Option 3
Purchase price			
Installation and commissioning			
Training			
Energy and consumables			
Maintenance and spares			
Software and upgrades			
Downtime allowance			
Less resale value			
Whole life cost			

? Questions to ask a machine supplier

1. Who near us runs this machine, and may we visit?
2. What exactly is included in the price, and what is not?
3. What cycle time and capability will you guarantee on our parts?
4. Where is your nearest service engineer, and what is the response time?
5. What do the common spares cost, and are they held in our country?
6. What are the annual software or licence fees?
7. Will you fix spares and service prices for five years?

! Common objections

What you may hear	A straight answer
“We need it quickly, so there is no time for three quotations.”	Two weeks of comparison on a ten-year purchase is the best-paid fortnight of the year.
“We always buy this brand.”	It may well be the right choice. Comparing confirms it and improves the deal.
“Used equipment is a false economy.”	For proven technology with a warranty and local support, it can be the frugal answer.

✓ Myth and fact

✗ **MYTH** The newest machine is the safest choice.

✓ **FACT** The safest choice is the one with the lowest whole life cost and an engineer who can reach you quickly.

TIP OF THE DAY Visit another user of the machine before you buy. Ask what they would do differently.

✓ Your action tasks

- ■ List the capital purchases planned for the next 18 months.
- ■ Write the requirement for the largest one as parts, volumes and tolerances, not as a machine model.
- ■ Build a whole life cost comparison for at least three options.

■ Set a company rule on the number of quotations needed above an agreed value.

FUN FACTS

- James Watt invented the unit “horsepower” as a sales tool, so that mine and mill owners could compare his steam engine with the horses it would replace.
- Watt and his partner Matthew Boulton charged customers a share of the fuel their engine saved. It was an early example of selling on whole life cost.

Section 8 in one page

- Challenge the need before requesting quotations.
- Specify the requirement, not the solution.
- Compare whole life cost, not purchase price.
- Tie payments to acceptance on your parts.
- Fix spares and service prices while you have leverage.

<50%

The purchase price is often less than half of what a machine costs you over its life.

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09

Making it stick: the 1% rhythm

Ideas are easy. Banking them month after month is the discipline. The meetings, the tracker and the culture that keep savings real.

In this section

- The rhythm
- The savings tracker
- Count honestly
- Stop savings leaking back
- Make it everyone's job
- The role of the programme lead
- Making savings visible
- Recognition
- Celebrate success every quarter
- The 1% club
- When savings stall
- Worked example: counting a saving honestly
- **Worksheet 9: Savings tracker**
- Questions to ask the team at the monthly review
- Common objections, myth and fact, tip of the day, action tasks and fun facts
- Section 9 in one page

Most savings programmes do not fail for lack of ideas. They fail because nobody followed the idea through to the purchase order, or because the saving was quietly given back the following year. The 1% Better Framework treats follow-through as the main event.

Five stages of a saving



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The rhythm

When	What	Who	How long
Weekly	Action review: what moved, what is stuck, what is next	Idea owners and the programme lead	20 minutes, standing
Monthly	Savings review: banked against target, new ideas added, decisions needed	Leadership team	45 minutes
Quarterly	Refresh the cost map, review the top ten suppliers, choose the next focus area	Owner or MD with finance and operations	Half a day
Annually	Set next year's 1% targets by cost line and build them into the budget	Board	Part of budgeting

The savings tracker

One shared sheet is enough. Every idea gets a line and moves through five stages. Only the last one counts.

Stage	Meaning
1. Idea	Someone thinks there is a saving here
2. Sized	The value and effort have been estimated
3. Agreed	The change is approved internally and with the supplier or customer if needed
4. Implemented	The new price, part or process is live
5. Banked	Finance has confirmed it in the purchase price or the accounts

Record for each line the owner, the cost line it affects, the annual value, the date it will be banked and the evidence. Review the tracker at every monthly meeting. A stage that has not moved in two months needs a decision: push it, change the owner, or close it.

> ***"If finance cannot see it, it is not banked."***

Count honestly

- **Savings** reduce a price or a cost you were actually paying. **Avoidance** is an increase you resisted. Both are valuable. Report them separately.
- Measure against last year's price and volume, and say so.

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- Net off any cost of achieving the saving: tooling, testing, stock write-off.
- Let finance be the referee. If they cannot see it, it is not banked.

Stop savings leaking back

- Update the standard cost and the budget as soon as a saving is banked.
- Put the new price in the system so the next order cannot use the old one.
- Record why a change was made so it is not reversed by someone who was not there.
- Re-check the top savings a year later. Some will have drifted.

Make it everyone's job

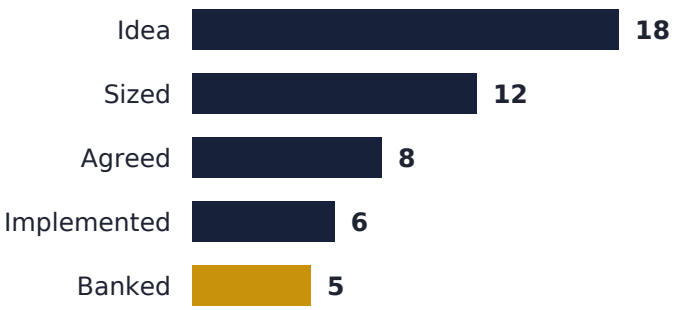
Share the tracker openly. Thank people by name for ideas, including small ones. Give each department a modest annual target and the freedom to find it their own way. When someone on the shop floor sees their suggestion implemented within a month, you will not need to ask for the next one.

> **THE OWNER'S QUESTION**
> Ask the same question at every monthly meeting: “What did we bank this month, and what is the next 1%?” Asked consistently for a year, it does more than any incentive scheme.

Going deeper: the role of the programme lead

Someone has to keep the rhythm. The programme lead does not find all the savings. They keep the tracker honest, chair the weekly review, chase stuck items and report to the owner. In an SME this is typically a few hours a week for a purchasing, operations or finance manager with enough standing to ask directors for updates. Give them the authority in front of the team.

A healthy tracker at month six (illustrative, number of ideas)



Illustrative. More ideas than savings is normal. The shape should narrow steadily.

Going deeper: making savings visible

Put a simple chart where people can see it: savings banked this year against target, month by month. Add the names of people whose ideas were implemented. Visibility does two things. It tells everyone the programme is real, and it makes it awkward for an idea to sit unprogressed for long.

Going deeper: recognition

Recognise contribution quickly and personally. A thank-you from the owner in front of the team, the same week, does more than a cash scheme that pays months later and invites arguments about who deserves what. If you do share the financial benefit, keep it simple and share it widely.

Going deeper: celebrate success every quarter

A programme that only ever asks for the next saving wears people out. Once a quarter, stop and mark what has been achieved. Thirty minutes is enough, the whole company should be there, and the owner should host it. People repeat what they see celebrated.

- **Show the number.** What was banked this quarter against the target, on one chart.
- **Tell three stories.** Three people, from different departments, each explain one improvement in two minutes: what they saw, what they changed, what it saved.
- **Thank by name.** Everyone whose idea was implemented, including the small ones, and any supplier who brought an idea.
- **Welcome new members of the 1% Club.** See below.
- **Name the next focus.** One cost line for the coming quarter, so people know where to look.
- **Share something.** Food, an early finish, a team outing. Keep it modest and for everyone.

Going deeper: the 1% Club

The 1% Club is a simple way to make improvement a habit and to give it a name inside the business. It is for the people who make things 1% better as part of their normal day. The idea is the habit, not the arithmetic: nobody measures a daily percentage. Members look for one small improvement each working day, and most of what they find will be small.

Element	How it works
Who can join	Anyone, in any role: shop floor, office, drivers, cleaners, apprentices, directors. Suppliers can be honorary members.
How you join	Have one improvement implemented. Not suggested: implemented. Size does not matter.
The daily habit	Each member looks for one small improvement a day and writes it on the board at their work area. A line is enough.
How you stay in	At least one implemented improvement a quarter. Membership lapses quietly if not, and is easy to regain.
What members do	Help a colleague get an idea implemented. Explain the club to new starters. Join the quarterly review of ideas.
Recognition	Names on a wall board and in the quarterly celebration. A pin, a mug or a shirt. A handwritten note from the owner for a first idea.
Quarterly awards	Smallest idea with the biggest effect. Best idea from the shop floor. Best idea from the office. Best supplier idea. Best team.
What it is not	Not a cash bonus scheme, not a suggestion box, not a competition between departments, and never a reason to cut quality or safety.

KEEP IT HONEST

Count implemented improvements, not suggestions. Keep the rewards small and the thanks personal. Publish the names. And let finance, not the club, decide what counts as banked: the club celebrates the habit, the tracker counts the money.

Going deeper: when savings stall

- **Ideas have dried up.** Refresh the cost map and move to a cost line you have not yet examined.
- **Ideas are stuck at “agreed”.** The blockage is usually a missing test, approval or system update. Name the blocker and give it a date.
- **Savings are leaking back.** Check that prices in the purchasing system were updated, and re-check last year's top ten.
- **The meeting keeps being cancelled.** The owner needs to attend the next three.

= Worked example: counting a saving honestly

Illustrative. A part bought 10,000 times a year falls from 4.00 to 3.70 after a material change.

Step	Calculation	Result
Gross annual saving	10,000 at 0.30	3,000
Less one-off validation and tooling change		800
Net saving in year one		2,200
Recurring saving from year two		3,000
Counted as	A saving, not avoidance: the old price was really being paid	

Finance confirms it once the first invoice arrives at the new price. Until then it sits at “implemented”.

General guidance only. Not legal, tax or financial advice.

Worksheet 9: Savings tracker

Start with this page, then move to a shared spreadsheet. Print or photocopy this page.

Idea	Cost line	Owner	Annual value	Stage (1 to 5)	Bank date	Evidence

? Questions to ask the team at the monthly review

1. What was banked this month?
2. Which ideas have not moved in two months, and why?
3. What decision do you need from me?
4. Which saving from last year should we re-check?
5. Who contributed an idea we should thank?
6. What is the next 1%?

! Common objections

What you may hear	A straight answer
"We do not need a meeting. We will just get on with it."	Without a rhythm, urgent work wins every week. Twenty minutes standing up is the price of follow-through.
"Finance is being too strict about what counts."	That strictness is what makes the number believable to the board and the bank.
"We have done all the easy ones."	You have done the easy ones on the lines you looked at. Refresh the map.

✓ Myth and fact

✗ **MYTH** A saving agreed is a saving made.

✓ **FACT** A saving is made when finance can see it in the purchase price or the accounts. Until then it is an intention.

TIP OF THE DAY Start every monthly review with what was banked, not what is planned.

✓ Your action tasks

- ■ Set up the savings tracker with the five stages.
- ■ Put the weekly 20-minute review and the monthly savings review in the diary for the next six months.
- ■ Agree with finance how a saving will be confirmed as banked.
- ■ Share the tracker with the whole leadership team.

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FUN FACT

The pilot's checklist was introduced after a 1935 crash of a new American bomber prototype that was judged too complex to fly from memory. A simple list made it one of the most successful aircraft of its time.

Section 9 in one page

- Follow-through is the main event.
- Weekly action review, monthly savings review.
- Five stages, and only “banked” counts.
- Report savings and avoidance separately.
- Ask every month what was banked and what is next.

20 min **a week, standing up, is the whole cost of keeping a savings programme alive.**

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10

Your 90-day 1% plan

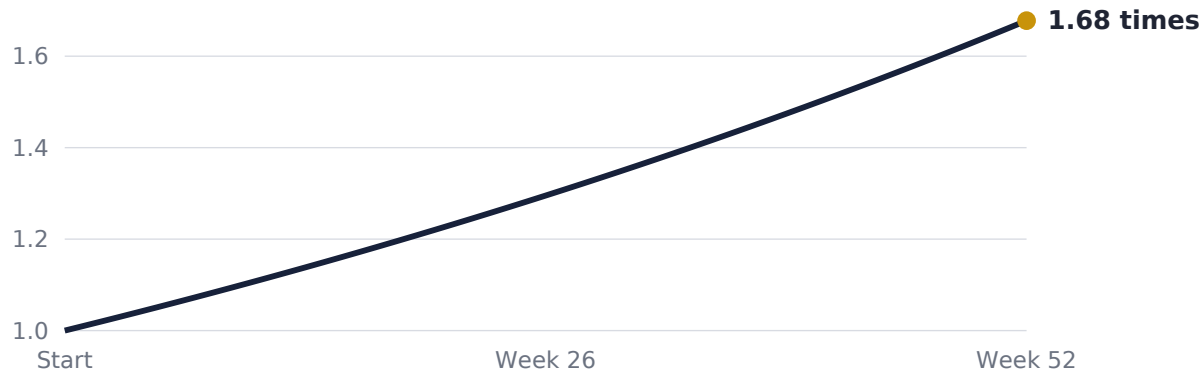
A week-by-week start, the targets to set and a one-page scorecard, so the first savings are banked inside a quarter.

In this section

- Set the targets
- Quick wins to look for first
- What good looks like at day 90
- Then repeat
- Week one in detail
- What to expect
- A realistic first-year shape
- When to bring in help
- Worked example: a day-90 scorecard
- **Worksheet 10: Our 90-day plan**
- Questions to ask yourself on day 90
- Common objections, myth and fact, tip of the day, action tasks and fun facts
- Section 10 in one page

You can begin the 1% Better Framework on Monday with the people and systems you already have. The aim of the first 90 days is not to transform the business. It is to bank the first savings, prove the method to your team and set the rhythm.

1% better every week, compounded over a year



Pure arithmetic: 1.01 multiplied by itself 52 times is about 1.68.

Weeks	Focus	What gets done	Output
1 to 2	See	Pull twelve months of spend. Build the cost map. Appoint a programme lead and idea owners.	Cost map on one page. Top 20% of spend identified.
3 to 4	Choose	Cost element analysis on the top ten parts. Score opportunities by size and ease. Set up the tracker.	Ten to fifteen sized ideas with owners.
5 to 8	Act	Quotation rounds on three to five lines. One value engineering session. Subscription and contract audit. One waste walk.	First ideas agreed and implemented.
9 to 12	Bank	Confirm new prices in the system. Finance validates. Supplier reviews with the 1% ask. Plan the next quarter.	First savings banked. Next focus area chosen.

Set the targets

Write a target against each main cost line. Start with 1% of annual spend per line, banked within twelve months, with a first-quarter aim of having ideas at the agreed stage worth at least that amount. Use your own numbers in the scorecard below.

Cost line	Annual spend	1% target	Ideas sized	Agreed	Banked
Materials and bought-in parts					
Subcontract and processes					
Freight and packaging					
Energy and premises					
Other overheads					
Scrap, rework and stock					
Total					

> ***“Week one is two hours with a list of invoices. Most businesses never take it.”***

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Quick wins to look for first

- Three large lines not price-tested for two years: request fresh quotations.
- Energy, insurance or freight contracts due for renewal in the next six months.
- Recurring payments nobody can explain.
- The single biggest cause of scrap this quarter.
- Dead stock that can be sold, used or scrapped to free space.
- Packaging on your highest-volume product.
- One over-specified part on your best-selling product.

What good looks like at day 90

- The cost map is on the wall and the leadership team can quote from it.
- The tracker has at least fifteen live ideas, each with an owner and a date.
- At least three savings are banked and confirmed by finance.
- The weekly and monthly meetings are happening without you chasing.
- Your top five suppliers have heard the 1% ask and responded.

Then repeat

The second quarter goes deeper into the BOM and the supplier base. The third looks at operations and capital plans. By the fourth, the 1% targets go into next year's budget, and the method has become how the business is run.

> **START ON MONDAY**
> Ask your accounts team for twelve months of purchase invoices by supplier. Block two hours on Friday to sort them. That is the whole of week one, and it is the step most businesses never take.

Going deeper: week one in detail

1. Monday: ask accounts for twelve months of purchase invoices by supplier.
2. Tuesday: appoint the programme lead and tell the leadership team why.
3. Wednesday: sort the export by value and mark the top 20% of lines.
4. Thursday: add the review date, supplier count and contract status to those lines.
5. Friday: print the cost map and spend thirty minutes on it with your team.

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The first 90 days

1	2	3	4
Weeks 1 to 2: See	Weeks 3 to 4: Choose	Weeks 5 to 8: Act	Weeks 9 to 12: Bank

Going deeper: what to expect

The first month feels slow, because it is spent looking. The second month produces more ideas than you can handle; choose a few and park the rest in the tracker. The third month is about finishing, which is harder than starting. Expect one or two ideas to fail on testing or supplier response. That is normal and is why you start more than you need.

Going deeper: a realistic first-year shape

Most businesses that follow the framework find the early savings in price and terms on lines that have not been tested for some time, and in overheads. The larger, more durable savings from specification and process arrive in the second half of the year, because they need testing and sometimes customer approval. Plan for that shape and do not judge the programme on the first quarter alone.

Going deeper: when to bring in help

You can run all of this yourselves. Outside help earns its fee in three situations: when nobody has the time to build the cost map and should-costs, when you want access to suppliers in regions you do not know, and when a neutral party can have a conversation with a long-standing supplier that would be awkward for you. If you do bring someone in, pay for banked results where you can, and make sure your own people learn the method.

= Worked example: a day-90 scorecard

Illustrative 5m-turnover manufacturer.

Cost line	Annual spend	1% target	Ideas sized	Agreed	Banked
Materials and parts	3.0m	30,000	41,000	22,000	9,000
Freight and packaging	0.2m	2,000	6,000	5,500	5,500
Energy and premises	0.3m	3,000	7,000	6,000	nil
Other overheads	0.5m	5,000	14,500	14,500	8,300
Total	4.0m	40,000	68,500	48,000	22,800

General guidance only. Not legal, tax or financial advice.

Agreed ideas already exceed the annual target at the end of the first quarter, and nearly half of them are banked.

Worksheet 10: Our 90-day plan

Put names and dates against each block. Print or photocopy this page.

Weeks	What we will do	Owner	Output	Done ?
1 to 2: See				
3 to 4: Choose				
5 to 8: Act				
9 to 12: Bank				

? Questions to ask yourself on day 90

1. Is the cost map on the wall and in use?
2. How many ideas are in the tracker, and how many have owners?
3. What has finance confirmed as banked?
4. Are the weekly and monthly reviews happening without me?
5. Which suppliers have responded to the 1% ask?
6. What is our focus for the next quarter?

! Common objections

What you may hear	A straight answer
"Let us wait until after the busy season."	There is always a busy season. Week one needs two hours.
"We should plan the whole year before starting."	Plan the quarter. What you learn will change the rest.
"We tried something like this before."	Then you know where it stalled. This time, start with the tracker and the monthly review in the diary.

✓ Myth and fact

✗ **MYTH** We are too busy for an improvement programme.

✓ **FACT** Week one takes about two hours. The first banked saving usually pays for all the time spent in the quarter.

TIP OF THE DAY Do the first step today, before you finish reading. Ask accounts for the invoice list.

✓ Your action tasks

- ■ Copy the 90-day table into your diary with names against each block.
- ■ Fill in the annual spend and the 1% target for each cost line in the scorecard.
- ■ Choose three quick wins from the list and assign owners this week.
- ■ Book the day-90 review now.

General guidance only. Not legal, tax or financial advice.

FUN FACTS

- Twelve weeks is long enough to bank real savings and short enough to keep everyone's attention, which is why so many improvement programmes run in quarters.
- A 1% gain every week compounds to roughly 68% over a year (1.01 to the power of 52).

Section 10 in one page

- Start on Monday with the invoice list.
- Aim to bank the first savings inside 90 days.
- Start more ideas than you need.
- Expect price and overhead savings first, design and process later.
- Put the 1% targets into next year's budget.

2 hours **is all week one takes: ask for the invoice list, then sort it.**

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The book in two pages

Every section in one line, with the number to remember. Pin these two pages up.

Section	The point	Remember
1. The 1% idea: why small beats big	A steady run of 1% savings beats one big programme.	**11.5%**: more profit from a 1% saving across materials, overheads and labour in the illustrative 5m-turnover company.
2. Know your cost: the cost map	Export twelve months of spend and group it.	**80/20**: About a fifth of your purchase lines will make up about four fifths of your spend. Find them first.
3. BOM: design and specification savings	Most cost is fixed on the drawing.	**6**: questions for every expensive part: function, value, material, tolerance, simplify, process.
4. Sourcing: buying better	Sourcing is deciding what to buy, from whom, on what terms.	**3 + 1**: Ask at least three suppliers, and always include your current one. They often have the best idea.
5. The supplier base and low-cost country sourcing	Shape the supplier base on purpose.	**17%**: In the illustrative example a 37% lower price became a 17% landed saving. Always compare on landed cost.
6. Overheads and indirect spend	Overheads are the costs nobody owns.	**90 days**: before every renewal is when the decision should be made. After that, the supplier decides for you.
7. Operations: waste, stock and the cost of quality	Every factory has a hidden factory that fixes mistakes.	**1 cause**: at a time. The single biggest source of scrap this month is the only quality project you need.
8. CAPEX: buying equipment the frugal way	Challenge the need before requesting quotations.	**<50%**: The purchase price is often less than half of what a machine costs you over its life.
9. Making it stick: the 1% rhythm	Follow-through is the main event.	**20 min**: a week, standing up, is the whole cost of keeping a savings programme alive.
10. Your 90-day 1% plan	Start on Monday with the invoice list.	**2 hours**: is all week one takes: ask for the invoice list, then sort it.

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✎ My action plan

Choose one action from each section, give it an owner and a date, and review the page monthly. Print or photocopy this page.

Section	My one action	Owner	By when	Done
1. The 1% idea: why small beats big				
2. Know your cost: the cost map				
3. BOM: design and specification savings				
4. Sourcing: buying better				
5. The supplier base and low-cost country sourcing				
6. Overheads and indirect spend				
7. Operations: waste, stock and the cost of quality				
8. CAPEX: buying equipment the frugal way				
9. Making it stick: the 1% rhythm				
10. Your 90-day 1% plan				

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Glossary

Term	Meaning
ABC analysis	Sorting items by value into A (the vital few), B and C (the long tail).
Avoidance	A cost increase that was resisted. Valuable, but reported separately from savings.
Banked	A saving confirmed by finance in the purchase price or the accounts.
Bill of materials (BOM)	The complete list of parts and materials in a product.
Bottleneck	The process that limits the output of the whole plant.
CAPEX	Capital expenditure: machines, tooling, buildings and other long-life assets.
Conversion cost	The cost of turning raw material into a part: labour, machine time and energy.
Cost element analysis	Breaking a price into material, conversion, overhead, margin, packaging and freight.
Cost of quality	The total cost of scrap, rework, sorting, returns and the effort to prevent them.
Dual sourcing	Holding two qualified suppliers for the same part.
Ex-works	A price at the supplier's gate, before any transport or duty.
Kaizen	Continuous small improvement.
Landed cost	The full cost of a part delivered to your door.
Poka-yoke	Mistake-proofing: designing a process so the error cannot be made.
Should-cost	Your own estimate of what a part ought to cost.
Total cost of ownership	Price plus everything else the purchase causes you to spend.
Value engineering	Systematically finding the least expensive way to deliver the required function.
Whole life cost	Everything an asset costs from purchase to disposal.
Yield	The share of raw material that ends up in good parts.

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Useful organisations and resources

Organisations and events worth knowing. Listed for reference only; no endorsement is implied, and none of them has reviewed this guide.

Organisation or resource	Why it is useful
Your national purchasing and supply institute	Most countries have a professional body with guidance and training on purchasing and supply.
Your national manufacturing association	Employer bodies offer benchmarking, training and peer networks.
Business support networks for smaller firms	Many regions run free services that help SMEs find international partners and suppliers.
Your national energy-efficiency advice service	Many countries fund free or subsidised energy audits for manufacturers.
Published material price indices	Metal exchange and trade-body indices that can anchor price formulas.
Your accountant and customs adviser	For anything touching tax, duty, financing or trade agreement preferences.

For anything involving law, tax, customs, employment, data protection or investment, use a qualified adviser in the relevant country.

Your next step

The framework works when it is started. If you would like a second pair of eyes on where your first 1% is likely to be, I am glad to help.

A free cost map review

Build the cost map from Section 2 and send it to me, with supplier names removed if you prefer. In a 30-minute call we will go through the top lines together and identify the three opportunities I would start with. No charge and no obligation.

- Email: shelton@frugalsourcing.com
- Web: www.frugalsourcing.com

How Frugal Sourcing helps

- **Cost element analysis.** A fact-based view of your spend and where the quick wins are.
- **BOM and commodity sourcing.** Should-cost, quotation rounds and supplier negotiation on your behalf.
- **India and low-cost country sourcing.** Supplier discovery, qualification and landed-cost comparison, with people on the ground.
- **CAPEX sourcing.** Specification, global supplier search and whole life cost comparison for machines and tooling.
- **Implementation.** We stay until the saving is banked, not only recommended.
- **Business development and partners.** Help finding customers, joint venture partners, and companies or investors interested in partnering with or investing in your business. Introductions only; not investment advice.

About the author

Shelton Julius is the Founder and Director of Frugal Sourcing, which he started in 2021 to help UK and European companies establish, source and grow in India, and to help SMEs take cost out of their business without taking quality out of their product.

He is a sourcing and supply chain professional with more than 25 years in manufacturing, over 22 of them spent on buses and bus sub-systems: complete bus bodies, interiors, seating systems, trims, bought-out parts, hardware and the supplier ecosystems behind them. He has worked with vehicle manufacturers and with Tier 1 and Tier 2 suppliers across India, the UK and Europe, on both the buying and the supplying side.

His specialism is localisation and indigenisation: taking products designed for European production and making them in India to cost, on time and without loss of quality or compliance. The method is practical rather than theoretical, built on zero-based costing, supplier development and frugal engineering. Three projects give the flavour of it. He led the complete localisation of European bus and rail seating systems for the Indian market, which took that business from €400,000 to €2.8 million of turnover in two years. He indigenised a 12-metre low-floor city bus body in full, inside a fixed six-month timeline and a set cost envelope, meeting every regulatory, safety and durability requirement. And he led sourcing and supply chain for a £45 million annual spend across more than 400 UK and European suppliers, with a team of eight buyers.

He holds a degree in mechanical engineering and an MBA for entrepreneurs. Alongside Frugal Sourcing he leads the India entry and growth of a European bus and rail interiors manufacturer, which is not named here, which keeps the advice in these guides tied to live projects rather than theory.

Frugal Sourcing works as a single accountable point of contact in the UK and Europe, backed by subject-matter experts on the ground in India. Beyond entry, sourcing and branding, Shelton supports clients with business development, and with introductions to joint venture partners and to companies and investors interested in partnering with or investing in manufacturing businesses.

Introductions to partners and investors are business introductions only. They are not investment advice or a regulated financial service, and each party should take its own professional advice.

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The Frugal Sourcing guides

- **Book 01: India Entry Playbook.** How to choose your route to market, find customers and partners, and avoid the costly mistakes in your first 12 months in India.
- **Book 02: The 1% Better Framework.** Small, steady improvements in BOM, sourcing and overheads that add up to big, sustainable savings, with 500 places to find your 1%.
- **Book 03: Branding for Manufacturers.** Why customers judge you online first, and a simple website and LinkedIn plan to turn your capability into enquiries.

TALK TO US

If something in this guide matches a decision on your desk, send a short note to shelton@frugalsourcing.com with what you make, where you sell and what you are trying to decide. You will get a straight answer on whether we can help.

The 1% Better Framework

The whole method on one grid. Every row is a section of this book. Every column answers the same question of each one: where it sits in the loop, what you actually do, which lever it pulls, which tool to use, what it produces and how often to run it. Work down the rows in order the first time, then use the grid as a reference.

Section	Loop stage	What you do	Lever	Tool	Output	How often
1 The 1% idea	See	Work out what 1% off each cost line is worth to your profit, and agree the three rules	All five	The three rules	The case, agreed by the board	Once, at the start
2 Know your cost	See	Export twelve months of spend, group it, rank it, add review date and contract status	Price Terms	Worksheet 2: cost map	A cost map on one page	Refresh quarterly
3 BOM and specification	Choose Act	Challenge function, material, tolerance and variety on the most expensive parts	Specification Volume	Worksheet 3: value engineering record	Approved design changes	One product a quarter
4 Sourcing	Choose Act	Build a should-cost, quote at least three ways, negotiate on facts and trade terms	Price Terms	Worksheet 4: should-cost builder	Agreed prices and formulas	Top ten parts a year
5 Supplier base	Choose Act	Consolidate the tail, dual-source what could stop you, compare on landed cost	Price Terms	Worksheet 5: landed cost comparison	A supplier base shaped on purpose	Top ten reviewed twice a year
6 Overheads	See Act	List every recurring payment, give each an owner and a renewal date, re-tender	Price Terms	Worksheet 6: recurring payments register	Lower fixed cost, no surprises	Annual, with 90-day alerts
7 Operations	Act	Walk the process, cut waiting, stock, scrap and rework at the biggest cause	Volume Process	Worksheet 7: process walk	Less scrap, less stock, more output	One process a month
8 CAPEX	Choose Act	Challenge the need, specify the requirement, compare whole life cost	Process Terms	Worksheet 8: whole life cost comparison	Capital decisions you can defend	Every capital purchase
9 Making it stick	Bank	Move every idea through five stages and hold the weekly and monthly reviews	All five	Worksheet 9: savings tracker	Savings confirmed by finance	Weekly and monthly
10 The 90-day plan	Repeat	Set the targets, run the quarter, bank the first savings, choose the next focus	All five	Worksheet 10: 90-day plan	A funded next quarter	Each quarter

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The loop, read down the Loop stage column

Stage	What happens	Who owns it	Output
See	Twelve months of spend grouped and ranked; the top 20% of lines identified with review date, supplier count and contract status	Programme lead with finance	The cost map
Choose	Cost element analysis on the largest lines; opportunities scored on size of prize and ease; owners named	Programme lead with each cost owner	Sized ideas in the tracker
Act	The change is made: specification, price, volume, process or terms, tested and approved where needed	The idea's owner	A new price, part or process, live
Bank	Finance confirms the saving in the purchase price or the accounts; standard cost and budget updated	Finance	A banked saving
Repeat	Refresh the map, pick the next cost line, set next year's targets in the budget	Owner or managing director	The next quarter's focus

The levers, read down the Lever column

Lever	The question to ask	Typical first 1%
Specification	Are we buying or making more than the function requires?	Remove an over-specified material, finish or tolerance
Price	Is this price current, tested and built from a should-cost?	Re-quote a line not tested for two years
Volume	Are we using more material, stock or space than we need?	Improve yield, cut scrap, reduce pack size
Process	Can this be done with less time, handling and rework?	Halve a set-up time, remove a double handling
Terms	Can the commercial arrangement itself carry the saving?	Consolidate deliveries, agree a price formula, take an early-payment discount

The rhythm, read down the How often column

When	What	Who	How long
Weekly	Action review: what moved, what is stuck, what is next	Idea owners and the programme lead	20 minutes, standing

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When	What	Who	How long
Monthly	Savings review: banked against target, new ideas, decisions needed	Leadership team	45 minutes
Quarterly	Refresh the cost map, review the top ten suppliers, choose the next focus	Owner or MD with finance and operations	Half a day
Quarterly	Celebrate: share what was banked, thank the people and suppliers behind it, welcome new members of the 1% Club	Owner or MD, with the whole company	30 minutes
Annually	Set next year's 1% targets by cost line and build them into the budget	Board	Part of budgeting

The rules that keep it honest

- **Measure before you move.** A saving you cannot measure is an opinion.
- **Never trade quality for cost.** One field failure undoes a year of savings.
- **Bank it.** A saving counts when finance can see it, not when it is agreed.
- **Report savings and avoidance separately.** Both are valuable; they are not the same thing.
- **Leave the supplier a living.** A supplier with no margin cuts corners you will find later.

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Five hundred places to find your 1%

No single line below will transform your cost base. Together they are where every 1% in this book comes from. There are fifty under each of ten headers. Work across one header at a time, mark the lines that apply to you, and put an owner and a date against the ten that look largest.

#	Element	Where the value is	How to target 1%
MATERIALS AND BILL OF MATERIALS			
1	Material grade	Paying for properties you never use	Agree an equivalent local grade with your engineers
2	Section and thickness	Material is bought by the kilo	Recalculate to the real load case, not habit
3	Blank size and nesting	A fifth of the sheet can leave as scrap	Re-nest, adjust the blank, use remnants
4	Raw material index	Prices rise with the index and never fall back	Agree a formula that moves both ways
5	Offcuts and remnants	Scrap sold cheap and bought back dear	Reuse in smaller parts or sell graded
6	Alternative material	One material chosen years ago	Trial a substitute on one non-critical part
7	Standard stock sizes	Specials carry a premium and a lead time	Design to sizes the supplier already stocks
8	Part count	Every part carries order, stock and assembly cost	Combine or remove one part per assembly
9	Fastener variety	Many types, small orders, big handling cost	Standardise to a short approved list
10	Obsolete revisions	Buying parts no current build uses	Clean the bill of materials against live builds
11	Purchase unit	Buying by the piece what is cheaper by coil, bar or bulk	Ask for the price in each form and compare per finished part
12	Minimum order quantity	Over-buying to hit a minimum, then writing stock off	Negotiate the minimum or share an order with another part
13	Mill and stockist route	Stockist margin on volumes a mill would supply direct	Check the direct route for your three largest materials
14	Material certificates	Paying for certification levels nobody requires	Match certificate level to the real customer requirement

#	Element	Where the value is	How to target 1%
15	Scrap value	Mixed scrap sold at the lowest grade price	Segregate by grade and tender the scrap contract
16	Bought-out components	Catalogue prices paid on volume items	Ask the manufacturer, not the distributor, for a volume price
17	Adhesives, sealants and paint	Usage far above the calculated need	Measure consumption per unit and set a standard
18	Kit and sub-assembly content	Paying a supplier to assemble simple kits	Compare kit price with parts plus your own labour
19	Engineering changes	Old stock scrapped at every revision	Plan run-out of old parts into each change
20	Bill of materials accuracy	Wrong quantities driving wrong purchases	Audit one product's BOM against a real build each quarter
21	Coil width and slit sizes	Trim loss on every coil	Order widths matched to the part
22	Bar and tube lengths	Short ends thrown away	Order lengths that divide into the part
23	Block versus near-net shape	Machining most of the block into swarf	Start from a casting, forging or profile
24	Casting versus fabrication	A process chosen at a different volume	Recost both routes at today's volume
25	Recycled content	Virgin price paid where recycled grade works	Ask for the recycled-grade price and test it
26	Alloy and energy surcharges	Surcharges that outlast their cause	Check each surcharge against its index
27	Wire and cable lengths	Lengths cut generously to be safe	Set cut lengths from the harness drawing
28	Electrical components	A brand named on the drawing	Approve an equivalent alternative
29	Bearings and seals	Premium grades on light duty	Match the grade to the real duty
30	Hydraulic and pneumatic fittings	Many thread types and brands	Standardise the range
31	Colour masterbatch	Colour dosed above the need	Set and check the dosing rate
32	Regrind	Sprues and runners scrapped	Reuse at an approved ratio

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#	Element	Where the value is	How to target 1%
33	Fabric, foam and hides	Cutting waste on rolls and hides	Nest patterns digitally
34	Glass and glazing	Bespoke sizes on every job	Use standard panes where design allows
35	Timber and board	Sheet sizes that waste a third	Design to the sheet module
36	Welding wire and gas	Used with no measure	Track use per metre of weld
37	Cutting fluids and oils	Changed by calendar, not condition	Test the fluid and extend its life
38	Abrasives	Discs discarded half used	Set a clear change standard
39	Labels and nameplates	Many sizes and materials	Rationalise to a few
40	Protective film and masking	Applied to every surface	Apply only where damage occurs
41	Paint colours	Many colours, small batches	Reduce the palette
42	Powder reclaim	Overspray lost to waste	Recover and reuse
43	Plating thickness	Thicker than the specification asks	Control to the specified minimum
44	Gaskets and trims	Cut from oversized stock	Buy cut to length or nested
45	Hardware kits	Extra pieces added to be safe	Count kits to the build
46	Trial material	Issued and never accounted for	Book trial material to a job
47	Customer-supplied material	Losses quietly absorbed	Record and report yield to the customer
48	Units of measure	Bought in one unit, used in another	Align units to stop ordering errors
49	Your material at suppliers	Double buying of stock already held	Reconcile supplier-held stock quarterly
50	Substitution approvals	Slow approvals keep the dearer option	Give engineering a five-day target
DESIGN AND SPECIFICATION			
51	Function statement	Features nobody values are still paid for	Write the function in two words, then challenge the rest

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#	Element	Where the value is	How to target 1%
52	Tolerances	Each tightening multiplies process cost	Open where function allows, with test evidence
53	Surface finish	Cosmetic finish applied to hidden faces	Specify finish by face, not by part
54	Inherited requirements	Specifications from a customer long gone	Re-check every clause against today's customer
55	Common platforms	Volume split across near-identical variants	Share parts across the range
56	Design for process	The design fights the supplier's method	Ask the supplier before the drawing is frozen
57	Number of set-ups	Each clamping and fixture adds cost	Redesign for fewer operations
58	Assembly time	Fiddly joints and hidden fixings	Design for straight-line assembly
59	Test requirement	Testing beyond what the standard asks	Align the test plan with the actual standard
60	Technical pack	Suppliers cannot quote accurately	Clean drawings, materials, finishes, acceptance criteria
61	Weight	Mass that adds material, freight and handling cost	Set a weight target per product and review against it
62	Joining method	Welding where a fold, rivet or bond would do	Review the joint on the three highest-labour assemblies
63	Standard components	Custom parts where a catalogue part exists	Search catalogues before approving any new drawing
64	Variants and options	Low-volume options carrying full overhead	Price options at true cost or withdraw the slowest sellers
65	Drawing notes	Blanket notes that force cost on every part	Remove general notes that do not apply to the part
66	Hidden features	Radii, chamfers and pockets with no function	Ask the machinist which features cost most and why
67	Labelling and marking	Engraving or printing beyond traceability needs	Specify the simplest method that meets the requirement
68	Service and repair	Whole assemblies replaced for one failed part	Design the wear part to be changed on its own
69	Prototype route	Production tooling ordered before the design settles	Use soft tooling or printing until the design is frozen

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#	Element	Where the value is	How to target 1%
70	Customer-driven extras	Special requests given away without a price	Quote every deviation from standard as an option
71	Wall thickness	Thicker than the process needs	Reduce, with a strength and flow check
72	Draft and radii	Features that slow and wear tooling	Follow the toolmaker's guidance
73	Handed parts	Separate left and right versions	Make one part serve both sides
74	Modular design	Each product engineered afresh	Reuse proven modules
75	Fixing access	Assembly needs special tools	Design for standard tools
76	Thread sizes	Many sizes on one product	Use two or three
77	Hole sizes	Many drills and punches	Standardise diameters
78	Bend radii	Special tooling for each bend	Use the standard tool radius
79	Weld length	Continuous weld where stitch would do	Calculate the weld actually required
80	Datum scheme	Parts that are hard to measure	Dimension from functional datums
81	General tolerance	A tight blanket tolerance on everything	Tighten only where function needs it
82	Material callouts	Brand names instead of standards	Specify by standard
83	Colour match	Tight match on parts never seen together	Set classes of colour match
84	Surface classes	Every face treated as show surface	Define A, B and C faces
85	Packaging in design	Products that need custom packing	Design for stacking and nesting
86	Shipping dimensions	Just over a pallet or container module	Trim to fit the module
87	Harness design	A bespoke harness per variant	One common harness with options
88	Controls and software	Custom code for each customer	Parameterise a standard
89	Safety factor	Margin stacked on margin	State the factor and review it

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#	Element	Where the value is	How to target 1%
90	Design life	Parts that outlast the product	Match part life to product life
91	Reading the standard	Requirements read more strictly than written	Check the clause with the test house
92	Change requests	Small changes released one by one	Batch changes each quarter
93	Design reviews	Cost never on the agenda	Add target cost to every review
94	Target costing	Cost discovered after design	Set the target before design starts
95	Competitor teardown	No outside benchmark	Strip a competing product each year
96	Supplier design input	Suppliers quote but never design	Hold a supplier design day
97	Simulation	Prototypes built to learn the basics	Simulate before cutting metal
98	Drawing errors	Scrap from ambiguous drawings	Check drawings with the maker
99	Legacy products	Old designs never revisited	Review the best seller every two years
100	Option take-up	Options almost nobody orders	Delete options with low take-up
SOURCING AND NEGOTIATION			
101	Should-cost	No fact base, so price is an opinion	Build one for the ten largest parts
102	Quotation coverage	One supplier, one price, no comparison	Always ask three, including the incumbent
103	Cost breakdowns	Lump-sum prices hide where the cost sits	Require material, process, overhead and freight separately
104	Price validity	Old prices only ever move up	Set an annual re-quote calendar for the top lines
105	Volume commitment	Spot buying is priced as risk	Commit volume in exchange for a rate
106	Payment terms	Terms are worth real money to a supplier	Trade reliable, faster payment for price
107	Currency and exchange	Exposure quietly priced into every part	Agree currency and a review clause

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#	Element	Where the value is	How to target 1%
108	Tooling amortisation	Tooling buried in the piece price for years	Pay once, own the tool, drop the piece price
109	Contract length	Short deals carry a risk premium	Offer a longer term for a lower price
110	Annual improvement	No expectation, so nothing happens	Agree a joint 1% target at every review
111	Request for quotation quality	Vague requests return padded prices	State volume, batch, delivery point and decision date
112	Bundling	Parts quoted one at a time	Offer a family of parts as a package
113	Price breaks	Ordering just below the next break	Map the breaks and adjust order quantities
114	Early-payment discount	Discounts offered and never taken	Take every discount worth more than your cost of cash
115	Rebates and retrospective deals	Earned rebates never claimed	List every rebate agreement and claim on a calendar
116	Free-issue material	Supplier marks up material you could buy better	Supply the material yourself where your price is lower
117	Sample and development charges	One-off charges paid without challenge	Agree them up front and offset against production orders
118	Price increase requests	Increases accepted on a letter	Ask for the cost evidence behind every request
119	Negotiation preparation	Meetings entered with no alternative	Write one page: should-cost, asks, trades, fallback
120	Maverick buying	Purchases made outside agreed suppliers	Report off-contract spend monthly by department
121	Category plan	Each purchase treated alone	Write one page per category
122	Spend under contract	Spend with no agreed terms	Raise the contracted share each year
123	Purchase order discipline	Orders raised after the invoice arrives	No order, no payment
124	Approval limits	Everything signed by one person, or nobody	Set clear tiers
125	Brand-locked requests	Specifications that name one brand	Allow approved equivalents

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#	Element	Where the value is	How to target 1%
126	Electronic auction	Standard items bought by habit	Try an auction on one commodity
127	Index tracking	Nobody watches the material indices	Review them monthly
128	Outside benchmarks	No reference beyond your own history	Use trade data or a benchmark group
129	Open-book costing	Guessing at a supplier's costs	Agree open book on key parts
130	Gain share	Suppliers have no reason to suggest savings	Share the first year's saving
131	Cost of switching	Savings lost to switching cost	Put the switch cost in the case
132	Award criteria	Awards made on unit price	Score every award on total cost
133	Negotiating team	One person negotiates alone	Pair the buyer with an engineer
134	Timing	Negotiating at the renewal deadline	Start three months early
135	Supplier's year end	Leverage at their year end unused	Time deals to their targets
136	Multi-year pricing	The same negotiation every year	Fix the price with an index clause
137	Order frequency	Many small orders	Move to scheduled call-offs
138	Blanket orders	Repeat quoting for repeat parts	Place an annual blanket order
139	Distributor or manufacturer	Paying an extra layer of margin	Go direct above a set volume
140	Buying groups	Too small to matter alone	Join a group for common items
141	Group company spend	Sister companies buy separately	Combine volumes
142	Customer-nominated suppliers	Prices you have never challenged	Ask the customer to back a review
143	Buying services	Services bought with no scope	Write a scope and measure delivery
144	Agreed rates	Ad hoc jobs charged at list price	Agree rates in advance
145	Spot and contract mix	All spot, or all fixed	Balance the two by category

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#	Element	Where the value is	How to target 1%
146	Forward pricing	Full exposure to material swings	Discuss fixing forward with the supplier
147	Duty changes	New trade terms left unused	Recheck duty rates every year
148	Sharing savings with customers	Savings handed over in full	Agree a share when you propose them
149	Supplier credit notes	Credits owed and never claimed	Reconcile statements monthly
150	Duplicate payments	The same invoice paid twice	Run a duplicate check each month
SUPPLIER BASE AND RISK			
151	Supplier count	Spend fragmented across too many accounts	Consolidate the tail to two or three
152	Second source	Dependency is priced against you	Qualify an alternative for every critical part
153	Supplier segmentation	Everyone managed the same way	Split into strategic, leverage, critical and routine
154	Performance data	No evidence, so no leverage	Track quality, delivery and responsiveness monthly
155	Supplier ideas	Free improvements nobody asks for	Ask what they would change about your part
156	Lower-cost country sourcing	Labour-heavy parts cost more at home	Move stable, well-documented part families
157	Landed cost	Ex-works price flatters the decision	Add freight, duty, stock and management time
158	Supplier development	Capable supplier, not yet ready	Invest engineering time, not only price pressure
159	Sub-tier visibility	Risk and cost hidden one level down	Ask who supplies your supplier, and from where
160	Exit terms	Leaving costs more than staying	Write notice, tooling and stock terms into the contract
161	Supplier visits	Problems discovered only when parts arrive	Visit the top ten at least once a year
162	Capacity at the supplier	Your orders queued behind a bigger customer	Ask for your share of their capacity and plan around it

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#	Element	Where the value is	How to target 1%
163	Supplier financial health	A failing supplier stops your line	Check accounts and payment behaviour annually
164	Quality agreements	Expectations assumed, never written	Sign a short quality agreement with each key supplier
165	Forecast sharing	Suppliers guessing your demand and pricing the risk	Share a rolling forecast every month
166	Local for urgent, distant for stable	One source used for everything	Split volume by urgency and stability
167	Supplier awards and recognition	Good suppliers treated like poor ones	Recognise the best; they will prioritise you
168	Onboarding new suppliers	Slow approval delays every saving	Create a standard, quick qualification route
169	Tooling location and condition	Tools worn, lost or held hostage	Keep a tooling register with location and life
170	Disputes	Small disputes left to sour the relationship	Resolve in person within a month
171	Supplier scorecards	Feedback never given	Send a short quarterly scorecard
172	Review meetings	Meetings only when something is wrong	Hold fixed-agenda reviews twice a year
173	One point of contact	Suppliers chased by five people	Name one owner per supplier
174	Their dependence on you	You are most of a supplier's sales	Watch the share and the risk
175	Your weight with them	Too small a customer to get priority	Consolidate to matter more
176	Regional concentration	Every supplier in one region	Spread the risk
177	Capability map	Not knowing what suppliers can do	Record processes and capacity
178	Supplier pipeline	No alternatives ready when needed	Keep two prospects per category
179	Trial orders	All-or-nothing switching	Run small paid trials
180	Duplicate tooling	One tool at one site	Duplicate the critical tools

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#	Element	Where the value is	How to target 1%
181	Continuity plans	No plan if a supplier's plant stops	Ask to see their plan
182	Lead-time agreements	Lead times that drift longer	Fix them in the agreement
183	Delivery performance	Late deliveries tolerated	Measure on-time delivery and review it
184	Corrective actions	The same defect returning	Require the root cause in writing
185	Cost of supplier failure	Your costs charged nowhere	Agree charge-back rules in advance
186	Training suppliers	Suppliers unsure of your standard	Train their team once, properly
187	Joint projects	No shared improvement work	Run one project a year per key supplier
188	Grouping by process	Similar parts spread across many	Group parts by process
189	Local development	Importing what could be made nearby	Develop one local source
190	Certificates	Lapsed supplier certificates	Track expiry dates
191	Safety and labour standards	Risk in your customers' audits	Write them into the agreement and visit
192	Shared drawings	Drawings spread wider than needed	Control what is shared and with whom
193	Supplier's material buying	Your supplier buys material badly	Let them use your material contract
194	Coordinated collections	Each supplier arranges its own freight	Combine collections on one route
195	Your payment record	Late payment priced into quotes	Pay on time, then ask for the price
196	Small suppliers	A cash-strapped supplier fails	Pay smaller firms faster
197	Supplier technology	New processes you never hear about	Ask for a yearly technology update
198	Depth of relationship	Only buyer and seller ever speak	Link engineers and quality people
199	Dormant accounts	Old suppliers still on the books	Close accounts cleanly

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#	Element	Where the value is	How to target 1%
200	Supplier records	Old contacts, terms and prices	Clean the supplier data yearly
INBOUND LOGISTICS AND PACKAGING			
201	Carrier mix	Too many carriers, no leverage with any	Consolidate to two or three and tender
202	Service level	Premium freight used by default	Set a standard service; exceptions need a reason
203	Shipment consolidation	Paying for air in part loads	Combine orders into fewer, fuller loads
204	Delivery frequency	Daily small drops at full cost	Agree a schedule that suits both sides
205	Shipping terms	Paying for risk you do not control	Choose terms that match who manages the route
206	Pack density	Shipping air inside boxes	Redesign the pack for pallet and container fill
207	Returnable packaging	Single-use cost on every trip	Introduce on fixed, repeating routes
208	Packaging material	Protection far beyond the damage data	Match protection to actual damage records
209	Customs classification	Wrong code, wrong duty, every shipment	Verify codes with a customs adviser
210	Trade agreement preference	Duty paid that need not be	Check origin rules and hold the paperwork
211	Freight invoices	Charges nobody checks against the quote	Audit one month of freight invoices line by line
212	Fuel and other surcharges	Surcharges that outlast their cause	Review surcharges at every renewal
213	Collection versus delivered	Supplier adds margin to their freight	Compare with arranging collection yourself
214	Expediting	Premium freight paying for late planning	Log every expedite and fix the top cause
215	Demurrage and storage	Containers and trailers held too long	Plan unloading before the shipment arrives
216	Outbound route planning	Vehicles leaving part empty	Fix delivery days by customer area

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#	Element	Where the value is	How to target 1%
217	Pallet and stillage loss	Returnable assets that never return	Track by customer and charge for losses
218	Goods-in handling	Deliveries re-packed before use	Ask suppliers to deliver in line-side quantities
219	Insurance on freight	Cover duplicated by carrier and policy	Check what your policy already covers
220	Import process	Clearance delays and storage charges	Use one broker and send documents before arrival
221	Mode of transport	Air freight where sea would do	Plan earlier and ship slower
222	Container fill	Containers sent part full	Plan orders to fill the container
223	Pallet height	Short pallets paying full rate	Build to the permitted height
224	Pallet pattern	Overhang and voids	Optimise the stacking pattern
225	Box sizes	Too many sizes held	Move to a standard range
226	Void fill	Paying to ship filler	Right-size the box
227	Stretch wrap	Film applied by feel	Use pre-stretched film and a standard
228	Despatch errors	Wrong goods to the wrong place	Scan at despatch
229	Proof of delivery	Disputes that delay payment	Capture proof electronically
230	Transit damage	Claims never made	Claim every time, and count them
231	Carrier performance	Late deliveries accepted	Measure on-time and review
232	Return loads	Vehicles returning empty	Use or sell the return leg
233	Own fleet or hire	A fleet that sits idle	Compare cost per drop
234	Collection rounds	Each supplier delivers separately	Run one collection round
235	Straight-through flow	Goods stored that could move on	Move fast lines straight through
236	Warehouse layout	Long walking routes	Put fast movers nearest despatch
237	Picking accuracy	Wrong picks found by the customer	Add a simple check at packing
238	Loading time	Vehicles queuing in the yard	Book loading slots

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#	Element	Where the value is	How to target 1%
239	Delivery windows	Failed deliveries and redelivery fees	Agree windows with customers
240	Customer collection	Delivering what could be collected	Offer a collected price
241	Minimum order value	Small orders that cost more than they earn	Set a minimum or a charge
242	Delivery charges	Free delivery on every order	Charge below a threshold
243	Export paperwork	Errors that hold shipments	Use templates and a second check
244	Duty reliefs	Duty paid on goods later re-exported	Ask your customs adviser what applies
245	Duty deferment	Cash tied up in duty at the border	Ask your customs adviser about deferment
246	Freight forwarder	One forwarder, never challenged	Tender the work yearly
247	Shipping calendar	Shipping at peak-season rates	Ship outside the peaks where you can
248	Packaging returns	Returnable packs never collected	Set up a collection loop
249	Dunnage	Timber and fittings thrown away	Reuse them
250	Dangerous goods	Goods classed more severely than needed	Check the classification
OPERATIONS AND PROCESS			
251	Bottleneck hours	An hour lost there is lost for the plant	Protect, feed and never starve the constraint
252	Set-up time	Long set-ups force large batches	Prepare off-line; aim to halve the changeover
253	Cycle time	The slow step sets the pace	Time it, then remove the waste inside it
254	Machine utilisation	Capacity paid for and not used	Reschedule before considering a purchase
255	Line balance	Operators waiting on each other	Rebalance the work content across stations

#	Element	Where the value is	How to target 1%
256	Material movement	Parts crossing the factory repeatedly	Move the two processes next to each other
257	Double handling	Picked up, put down, picked up again	Design the flow once and stage kits
258	Standard work	Every operator has their own method	Agree one written best method at the station
259	Maintenance	Breakdowns cost far more than service	Plan it and track the causes of downtime
260	Shift pattern	Premium hours worked out of habit	Match the pattern to real demand
261	Tool and cutter life	Tools changed too early or too late	Record life per tool and set change points
262	Process parameters	Speeds and feeds set once, years ago	Trial improved settings on the highest-volume job
263	First-pass yield	Parts looping back through the process	Measure yield per operation and fix the lowest
264	Start-up and shutdown	Half an hour lost at each end of the shift	Stage the first job the evening before
265	Changeover sequence	Jobs run in an order that maximises set-ups	Sequence similar jobs together
266	Work instructions	Knowledge in heads, lost when people leave	One page with photographs at each station
267	Overtime	Overtime covering for poor flow	Track the reason for every overtime hour
268	Indirect labour	Skilled people fetching and carrying	Give material movement to a dedicated role
269	Subcontract versus in-house	Work sent out that you have capacity for	Review make-or-buy on the ten largest subcontract jobs
270	Layout	A layout that grew by accident	Redraw the flow for the main product family
271	Daily production meeting	Problems found at the end of the week	Hold ten minutes every morning
272	Hour-by-hour board	Nobody knows the target	Show target and actual each hour
273	Plan stability	Plans changed daily	Freeze the short-term plan

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#	Element	Where the value is	How to target 1%
274	Schedule adherence	Jobs run out of sequence	Measure adherence to plan
275	Material shortages	Lines stopped waiting for parts	Review shortages daily
276	Kitting	Operators hunting for parts	Kit jobs before the shift
277	Tool storage	Time lost searching for tools	Use shadow boards
278	Workplace order	Clutter hiding problems	Reset the area at the end of each shift
279	Breaks on the bottleneck	The key machine idle at breaks	Stagger breaks
280	Multi-skilling	One person per skill	Keep and use a skills matrix
281	Absence cover	Output falling with every absence	Cross-train for key jobs
282	Operator maintenance	Small faults left to grow	Daily checks by the operator
283	Machine spares	Long waits for a simple spare	Hold the critical spares
284	Minor stops	Many short stops never counted	Count them and fix the top one
285	Speed losses	Running below rated speed	Find out why and restore it
286	Simple automation	Skilled hands on simple repeats	Add low-cost automation
287	Jigs and fixtures	Setting up by eye	Make simple fixtures
288	Programming	Programs written at the machine	Program offline
289	Batch paperwork	Paperwork delaying release	Simplify the record
290	Ergonomics	Fatigue slowing output	Fix reach, lift and posture
291	Workstation lighting	Errors from poor light	Improve task lighting
292	Heat and noise	Tiredness and mistakes	Reduce at the worst stations
293	Agency labour	A long-term agency premium	Convert long-term roles
294	Core team stability	Churn that costs training time	Stabilise the core team
295	Supervisor time	Supervisors buried in administration	Free them to lead the floor

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#	Element	Where the value is	How to target 1%
296	Idea boards	Ideas raised and lost	Keep a board at each cell
297	Problem solving	Fixes that do not last	Use one simple root-cause method
298	Line ownership	Nobody owns the line's result	Name an owner per line
299	Energy per unit	Energy not tied to output	Track it per unit made
300	Shift comparison	One shift quietly underperforming	Compare shifts on the same measures
QUALITY AND THE COST OF POOR QUALITY			
301	Scrap by cause	Scrap recorded by value, not by reason	Tally by cause at the point it happens
302	Rework hours	The hidden factory that fixes mistakes	Measure it, then attack the single largest cause
303	Sorting and containment	Paying people to find defects	Fix the process instead of the symptom
304	Customer returns	Credit notes, freight and goodwill	Root-cause every return, without exception
305	Warranty	Field failures paid for years later	Feed failure data back into design
306	Supplier rejects	Inspecting quality in at your gate	Agree control plans at the supplier's process
307	First-off checks	A whole batch made wrong	Make the first-off a gate, not a formality
308	Gauges and calibration	Measuring with the wrong or drifting tool	Calibrate, and keep gauges at the machine
309	Mistake-proofing	Human error designed into the job	Fixture the error out
310	Concessions	Out-of-spec quietly becoming normal	Decide and record each one; review the trend
311	Inspection level	Inspecting everything, including what never fails	Reduce checks where data shows stable results
312	Incoming inspection	Re-checking what a good supplier already checked	Move proven suppliers to skip-lot inspection
313	Process capability	Running a process that cannot hold the tolerance	Measure capability before accepting the job

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#	Element	Where the value is	How to target 1%
314	Customer complaints	Each complaint handled as a one-off	Trend complaints by cause and by product
315	Premium freight for quality	Air freight to replace rejected parts	Charge it back to the cause and count it
316	Line stops	Stops for defects that recur weekly	Log every stop and close the top one each month
317	Training	Defects from people never shown the standard	Train and sign off at the station
318	Audit findings	The same findings at every audit	Close findings with a cause, not a signature
319	Design feedback	Production problems never reach the designer	Hold a monthly review between production and design
320	Quality cost reporting	Nobody sees the total	Report one number monthly to the leadership team
321	Control plans	Checks unrelated to risk	Plan checks by risk
322	Self-inspection	Defects found downstream	Check at the station that makes it
323	Last-off checks	Tool wear unnoticed	Check the last part of the run
324	Sampling plans	Arbitrary sample sizes	Use a recognised plan
325	Measurement system	Gauge variation read as process variation	Run a gauge study
326	Appearance standards	Arguments over what is acceptable	Agree boundary samples
327	Handling damage	Good parts damaged inside the plant	Protect and separate parts
328	Packing defects	Damage after final inspection	Check the pack, not only the part
329	Mixed parts	The wrong part in the box	Separate and label similar parts
330	Traceability	A whole month recalled for one batch	Trace by lot
331	Change control	Unapproved changes causing failures	Use a formal change note
332	Start-up scrap	First parts scrapped every run	Reduce the warm-up loss
333	Material defects	Found after value is added	Check key properties at receipt
334	Shop conditions	Temperature and humidity drift	Monitor where it matters

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#	Element	Where the value is	How to target 1%
335	Cleanliness	Defects from contamination	Set and keep a clean standard
336	Tool wear	Dimensions drifting	Change tools to a plan
337	Process drift	A slow shift nobody sees	Keep simple run charts
338	Reaction plans	Operators unsure what to do	Write the reaction plan
339	Quarantine	Suspect stock mixed with good	Mark and police a quarantine area
340	Charge-backs	Supplier defects that cost you	Recover the cost
341	Contract review	Customer requirements misread	Review requirements before accepting
342	Over-quality	Beating the specification at a cost	Run to target, not beyond
343	Certification scope	Certifying what no customer needs	Review the scope
344	Internal audits	Tick-box audits	Audit the process, not the paperwork
345	Lessons learned	The same mistake on the next product	Keep and use a lessons log
346	Product launch	Scrap in the first months	Run proper pre-production trials
347	Sorting at the customer	Paying to sort on their site	Contain at source
348	Field service	Engineers fixing design faults	Feed every visit back to design
349	Document errors	Wrong certificates holding shipments	Use templates and a check
350	Measures and reward	Output rewarded, quality ignored	Balance the measures
INVENTORY AND WORKING CAPITAL			
351	Dead stock	Cash sitting on a shelf, ageing	Decide this month: use, sell or scrap
352	Slow movers	Space, handling and obsolescence	Reset reorder levels to real usage
353	Reorder levels	Set years ago and never revisited	Recalculate from current lead time and demand
354	Safety stock	Covering for a problem nobody fixed	Fix the cause first, then reduce the cover

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#	Element	Where the value is	How to target 1%
355	Batch size	Large batches hide defects and tie up cash	Reduce as set-up time comes down
356	Work in progress	Cash parked between machines	Shorten the queue at the constraint
357	Consignment stock	You fund stock before you use it	Negotiate where volume justifies it
358	Stock accuracy	Ordering parts you already have	Cycle count the A items often
359	Spares holding	Insurance bought twice over	Agree availability with the supplier instead
360	Duplicate holding	You and your supplier hold the same part	Share forecasts and let one side hold it
361	Customer payment terms	You fund your customers for longer than agreed	Chase overdue accounts weekly
362	Invoicing speed	Goods shipped, invoice sent days later	Invoice on the day of despatch
363	Stock ownership point	You own goods earlier than you need to	Agree ownership passes at delivery or use
364	Finished goods	Making to stock what could be made to order	Review stock policy by product
365	Obsolescence provision	Write-offs that surprise the accounts each year	Review ageing stock quarterly and act
366	Purchase order timing	Ordering early 'to be safe'	Order to lead time, not to habit
367	Lead times	Long lead times forcing high stock	Ask each key supplier what would shorten theirs
368	Storage and racking	Renting outside space for slow stock	Clear slow stock before paying for more space
369	Stock of consumables	Cupboards of items bought in bulk	Vend or issue on a simple signed basis
370	Returns to suppliers	Reject stock waiting months for credit	Return and claim within the month
371	Stock classification	All stock treated alike	Classify, and control the top class tightly
372	Demand forecast	Planning by guesswork	Keep a simple rolling forecast

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#	Element	Where the value is	How to target 1%
373	Forecast accuracy	Never measured	Measure it and learn
374	Customer schedules	Late changes from customers	Agree a frozen period
375	Minimum batch to customers	Tiny uneconomic runs	Set a minimum batch
376	Stock policy by product	One policy for everything	Decide make-to-order or stock per product
377	Late configuration	Every variant held finished	Finish to order from common stock
378	Common stock	Stock tied to one variant	Hold common parts and configure
379	Buffer for a poor supplier	Stock covering unreliability	Fix the supplier, then cut the buffer
380	Stock locations	Stock that cannot be found	Use a location system
381	First in, first out	Old stock ageing at the back	Lay out first-in-first-out lanes
382	Shelf-life items	Expired stock written off	Buy smaller and manage dates
383	Storage damage	Stock spoiled by poor storage	Store it properly
384	Shrinkage	Unexplained loss	Control access
385	Stock takes	One annual surprise	Count on a rolling basis
386	Surplus from minimums	Minimum orders creating surplus	Negotiate or share the order
387	Project stock	Bought for cancelled jobs	Review open projects
388	Engineering stock	Prototype parts lingering	Clear it each quarter
389	Customer-owned stock	Stored free for months	Charge storage after an agreed time
390	Stage payments	Funding long jobs yourself	Ask for staged payments
391	Credit control	Selling to slow payers	Check credit and set limits
392	Disputed invoices	Payment held over a small query	Resolve disputes within a week
393	Paying early by accident	Invoices paid before they are due	Pay to terms
394	Payment runs	Ad hoc payments all month	Fix the payment runs
395	Cash forecast	Cash surprises	Keep a thirteen-week forecast

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#	Element	Where the value is	How to target 1%
396	Tooling recovery	Customer tooling not invoiced	Invoice at approval
397	Price list updates	Selling at last year's prices	Update prices when costs move
398	Quote validity	Old quotes honoured at a loss	Put validity dates on every quote
399	Small-order surcharge	Losses on tiny orders	Add a surcharge
400	Scrap held in stock	Scrap and rework hidden in the count	Write off or fix it monthly
OVERHEADS AND SERVICES			
401	Subscriptions and licences	Paying for people who have left	Audit users twice a year
402	Insurance	Auto-renewed without a market test	Go to market every two or three years
403	Professional fees	Open-ended scopes and hourly creep	Fix the scope and the fee
404	Banking and card fees	Rarely read, never challenged	Ask for a schedule and compare annually
405	Telecoms	Lines and contracts for closed areas	Match the service to current sites
406	IT and cloud	Overlapping tools doing one job	Consolidate platforms and tiers
407	Consumables	Hundreds of small, unpriced orders	Agree a catalogue with two or three suppliers
408	Waste collection	Contract rolled over for years	Re-tender, and segregate waste you can sell
409	Travel	The expensive option chosen by default	Set a short, clear policy
410	Recruitment	Agency fees paid out of habit	Build a referral and direct pipeline
411	Maintenance contracts	Cover bought for equipment rarely used	Match cover to the criticality of each machine
412	Vehicle and fleet	Vehicles under-used and over-specified	Review utilisation and pool where possible
413	Cleaning and facilities	Scope set years ago	Re-scope to current use and re-tender
414	Workwear and laundry	Rental for staff who have left	Reconcile wearers to payroll twice a year

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#	Element	Where the value is	How to target 1%
415	Printing and stationery	Colour printing and devices nobody needs	Set defaults and reduce device count
416	Memberships and subscriptions	Renewals for bodies nobody uses	Ask each owner to justify the renewal
417	Training spend	Courses booked without a plan	Link training to a skills need and measure it
418	Marketing and exhibitions	Stands booked from habit, results unmeasured	Count enquiries per event and cut the weakest
419	Audit and certification fees	Multiple bodies and overlapping audits	Combine audits and compare certification bodies
420	Expenses	Small claims with no policy	Publish a one-page policy and apply it evenly
421	Mobile phones	Unused lines and wrong tariffs	Audit lines and tariffs
422	Software tiers	Premium tiers for basic users	Match the tier to the user
423	Hardware refresh	Replacement by calendar	Replace on need
424	Data storage	Paying to store what nobody uses	Archive and delete
425	IT support	Hourly call-outs	Agree fixed support
426	Website and hosting	Legacy hosting fees	Review and consolidate
427	Invoice processing	Manual keying	Automate invoice capture
428	Payroll service	Charges for every extra	Review the contract
429	Legal work	Hourly rates for standard documents	Use fixed fees and templates
430	Debt collection	Action taken too late	Start a simple early process
431	Bank facilities	Fees for facilities never used	Right-size them with your bank
432	Foreign payments	The bank's spread on every payment	Compare providers
433	Card processing	High merchant rates	Compare rates
434	Office post and couriers	Premium service by default	Set a default
435	Office supplies	Many small orders	Use a catalogue

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#	Element	Where the value is	How to target 1%
436	Canteen and vending	An unmanaged subsidy	Review the arrangement
437	Company cars	A policy written years ago	Review the policy
438	Fuel cards	Use nobody monitors	Report by vehicle
439	Hotels and flights	Late booking at high prices	Book early
440	Travel for meetings	Travel for what a call can do	Default to video
441	Security	A scope set years ago	Re-scope to today's site
442	Grounds and pest control	Contracts that roll over	Re-tender
443	Equipment hire	Long hires that cost more than buying	Review the hire list quarterly
444	Record storage	Paying to keep old archives	Destroy to your retention policy
445	Licences and permits	Late renewals and penalties	Keep a renewal calendar
446	Fines and penalties	Avoidable charges	Track each one to its cause
447	Bad debt	Write-offs	Tighten credit control
448	Sponsorship and donations	Unplanned giving	Set a budget
449	Office temps	Temporary staff for years	Convert the long-term roles
450	Meeting time	Managers' hours lost in meetings	Halve the standing meetings
ENERGY, PREMISES AND CAPITAL			
451	Base load	The plant draws power making nothing	Read the meter overnight and at weekends
452	Compressed air leaks	Constant, invisible and expensive	Survey and fix; it pays back in weeks
453	Lighting	Old fittings running full time	LED and sensors where the hours are long
454	Heating and extraction	Running when nobody is there	Zone it and put it on a time clock
455	Energy contract	Drifting on out-of-contract rates	Tender well before renewal

#	Element	Where the value is	How to target 1%
456	Space utilisation	Paying for space filled with obsolete stock	Clear it, then sublet or renegotiate
457	Rates and service charges	Assessments rarely challenged	Review the assessment and the charges
458	Capital need	Buying before challenging the need	Ask what the existing assets could do first
459	Whole life cost	Decided on purchase price alone	Compare energy, spares, downtime and resale
460	Used and refurbished	New bought by default	Consider proven used equipment with a warranty
461	Power factor and tariff	Charges for poor power factor or the wrong tariff	Ask your supplier for a tariff and power review
462	Peak demand	Charges set by a few minutes of peak load	Stagger the start-up of large machines
463	Machine idle running	Hydraulics, extraction and conveyors left on	Fit timers or make switch-off part of the routine
464	Process heat	Ovens and tanks heated long before use	Schedule heat-up to the production plan
465	Insulation and doors	Heat lost through open doors and bare pipes	Fit fast doors and lag the pipework
466	Water and effluent	Leaks and once-through use	Meter it, fix leaks, recirculate where possible
467	Lease terms	Break clauses and reviews missed	Diary every lease date a year ahead
468	Finance route for capital	Finance arranged by the equipment seller	Compare with your own bank and ask your accountant
469	Spares and service at purchase	Prices set after you are committed	Fix spares and service rates before signing
470	Post-purchase review	Business cases never checked	Compare result with the case six months after installation
471	Compressor pressure	Set higher than the tools need	Lower the set point
472	Compressor heat	Heat thrown away	Recover it for space or water heating
473	Motors and drives	Fixed speed on varying loads	Fit variable speed drives

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#	Element	Where the value is	How to target 1%
474	Sub-metering	No idea which area uses what	Meter the big users
475	Energy per unit target	No target at all	Set one and track it
476	Out-of-hours audit	Equipment left on	Walk the site monthly after hours
477	Switch-off ownership	Nobody's job	Name an owner per area
478	On-site generation	An unused roof	Get a feasibility quotation
479	Time of use	Heavy loads run at peak rates	Shift load where you can
480	Boilers and burners	Running out of tune	Service and tune them
481	Steam and hot water leaks	Constant losses	Fix them
482	Chillers and cooling	Cooling further than needed	Raise the set point
483	Ventilation rates	Over-ventilating	Match rates to need
484	Building fabric	Draughts and gaps	Seal them
485	Heat at roof level	Warm air trapped high up	Fit destratification fans
486	Office heating and cooling	Systems fighting each other	Set a gap between them
487	Gas contract	Rolling on default rates	Tender it
488	Water supply	A market never tested	Compare suppliers where you can
489	Trade effluent	Charged on assumed volumes	Meter the actual volume
490	Property reliefs	Reliefs never claimed	Ask your adviser what applies
491	Sub-letting	Space standing empty	Let it
492	Site consolidation	Two half-used sites	Combine them
493	Building maintenance	Repairs only when it fails	Plan the maintenance
494	Capital plan	Ad hoc purchases	Keep a three-year plan
495	Capacity before capital	A machine bought where a shift would do	Compare a second shift first
496	Machine specification	Bought above the need	Buy to the requirement

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#	Element	Where the value is	How to target 1%
497	Installation costs	Underestimated every time	Quote the full installation
498	Grants and incentives	Support never claimed	Ask your adviser what applies
499	Old assets	Left standing in a corner	Sell them promptly
500	Tooling life	Tools replaced early	Refurbish before replacing

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The 1% Better scorecard

One page for the whole programme. Enter your spend and the 1% target value for each line. Record the value of ideas at each of the five stages. Only stage 5, banked and confirmed by finance, counts as achieved. Achieved vs target is banked value divided by target value. Status: ahead, on track or behind. Print or photocopy this page.

Cost line	Annual spend	Target value (1%)	1 Idea	2 Sized	3 Agreed	4 Imple-mented	5 Banked	Achieved vs target	Status
Materials and bought-in parts									
Subcontract and outside processes									
Freight and packaging									
Energy and premises									
Software, insurance and services									
Consumables and maintenance									
Scrap, rework and stock									
Capital purchases									
Total									

Where to start: a ten-point diagnostic

Tick each statement that is true of your business today. Every statement you cannot tick points to the row of the grid that fixes it.

True today?	Statement	If not, start at
	We can name the twenty suppliers who account for most of our spend, without looking it up	Row 2: cost map
	Every large purchase line has been price-tested in the last two years	Row 4: should-cost
	Someone owns the cost of each product's bill of materials and reviews it yearly	Row 3: specification
	We hold a qualified second source for every part that could stop production	Row 5: supplier base
	We compare overseas suppliers on landed cost, not ex-works price	Row 5: landed cost
	Every recurring payment has a named owner and a renewal date in a shared calendar	Row 6: overheads
	We know what poor quality cost us last year, as one number	Row 7: cost of quality
	No capital purchase is approved without three quotations and a whole life cost comparison	Row 8: CAPEX
	Savings are tracked to a banked stage that finance confirms	Row 9: the tracker
	We have a dated plan for the next 90 days of cost work	Row 10: the 90-day plan

RE-RUN IT IN SIX MONTHS

Keep the first score. The improvement in the score is a better measure of the programme than any single saving, because it tells you whether the method has taken root or whether one person is carrying it.

General guidance only. Not legal, tax or financial advice.

Notes

Use these pages for your own notes, actions and questions.

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About this book

Big cost-cutting programmes make headlines and then fade. This guide shows a steadier way: find a 1% improvement, bank it, and find the next. Ten short sections cover the bill of materials, sourcing, the supplier base, overheads, operations and capital purchases, with a simple rhythm and a 90-day plan to make savings stick. It closes with the complete framework on one grid and a list of 500 places to find your 1%. Written for owners and managers of manufacturing SMEs who want lasting savings without damaging quality or supplier relationships.

About the author

Shelton Julius is the Founder and Director of Frugal Sourcing. He helps UK and European companies establish, source and grow in India, and helps manufacturers reduce cost, build their brand, develop new business and find the right partners.

Also in the series

Book 01: India Entry Playbook | Book 02: The 1% Better Framework | Book 03: Branding for Manufacturers