

# Gemba Before Algorithms

Teaching a manufacturer to walk the floor, and why that matters more in the AI era.

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# Lean found me before I had the word for it



ROOM 1

## Bass lessons

“Economy of motion: do more by moving less.”



ROOM 2

## Kitchens

Mise en place is 5S. Nobody had told me yet.



ROOM 3

## Japan & China

A factory run by a Japanese executive rooted in TPS. Lean on purpose.



ROOM 4

## Solar Cannabis Co.

A plant with no working knowledge of Lean.



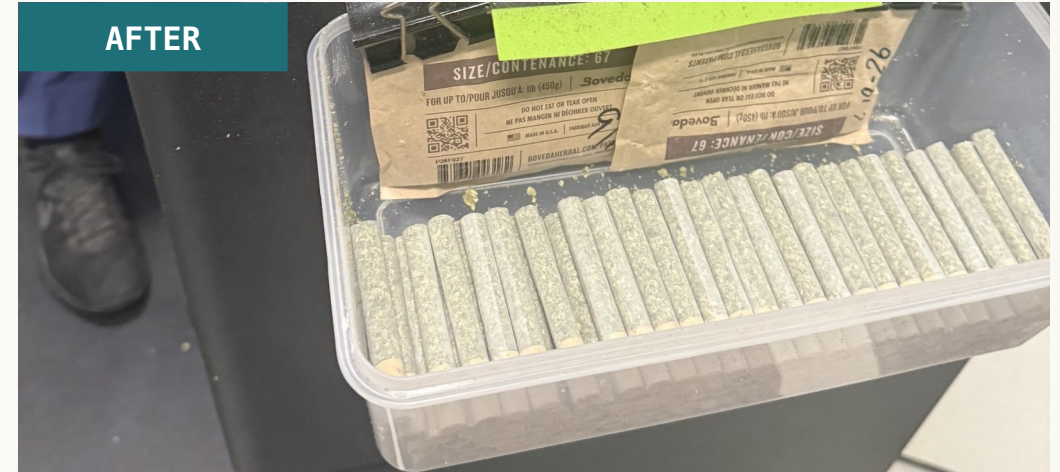
Room 3: on the floor in China

# What I walked into



## The floor came to the meeting.

Production teams pulled up to corporate to explain problems.



## The meeting goes to the floor.

Leaders go to the work: where product actually sits.

*Good people, working hard. The meetings just ran the wrong direction.*

# What the floor gave back

**~75%**

of packaging capacity now co-packing for other brands

**57 → 76%**

bud-to-shake, after the trim team redesigned trim

**2 weeks**

harvest cadence. Harvest days now finish early.

**+30%**

record flower harvest over the best prior year



Trim station: flower in the bins, trim in the pan



Dry room: a harvest every two weeks

## It came from the floor, not a memo.

It started with time on the line: where product actually sat, and where the bottleneck actually was.

THE FIRST THING YOU WERE TAUGHT

# 現地現物

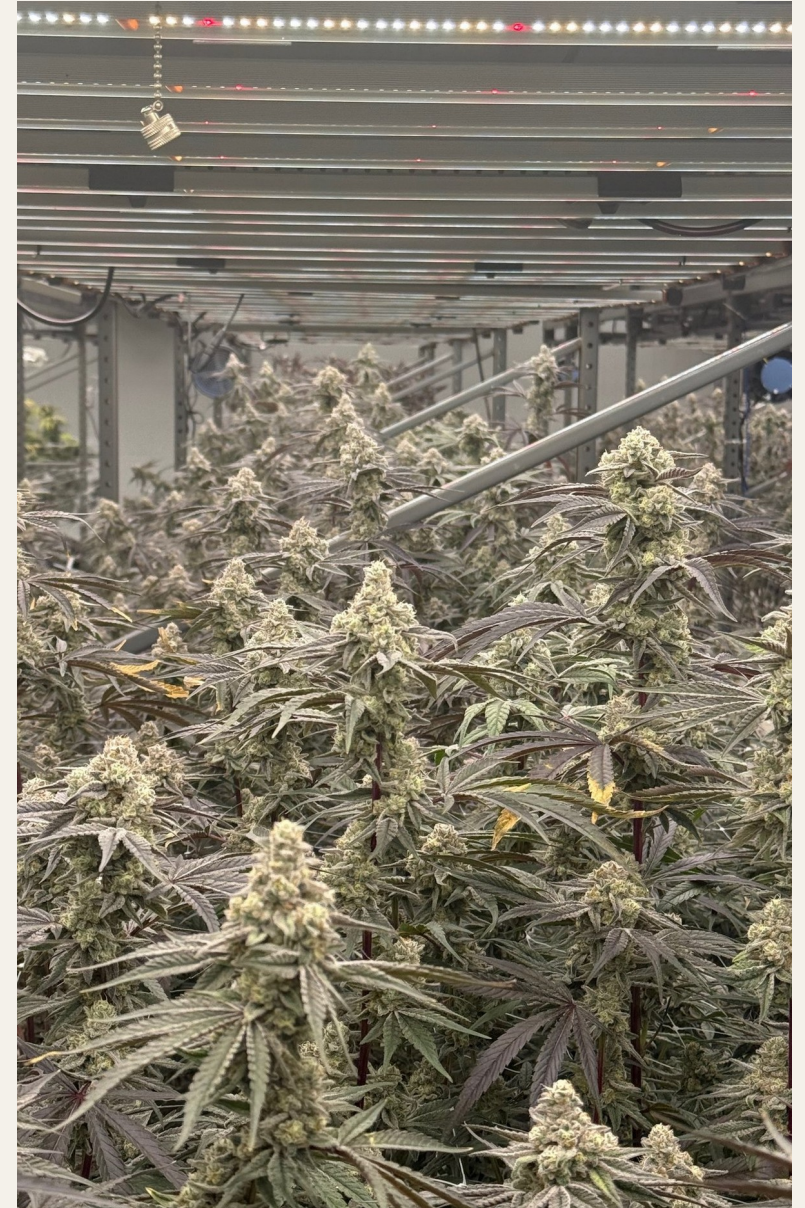
Genchi genbutsu

Go to the actual place. Look at the actual thing.

A WORKING DEFINITION FOR A PLANT FULL OF DASHBOARDS

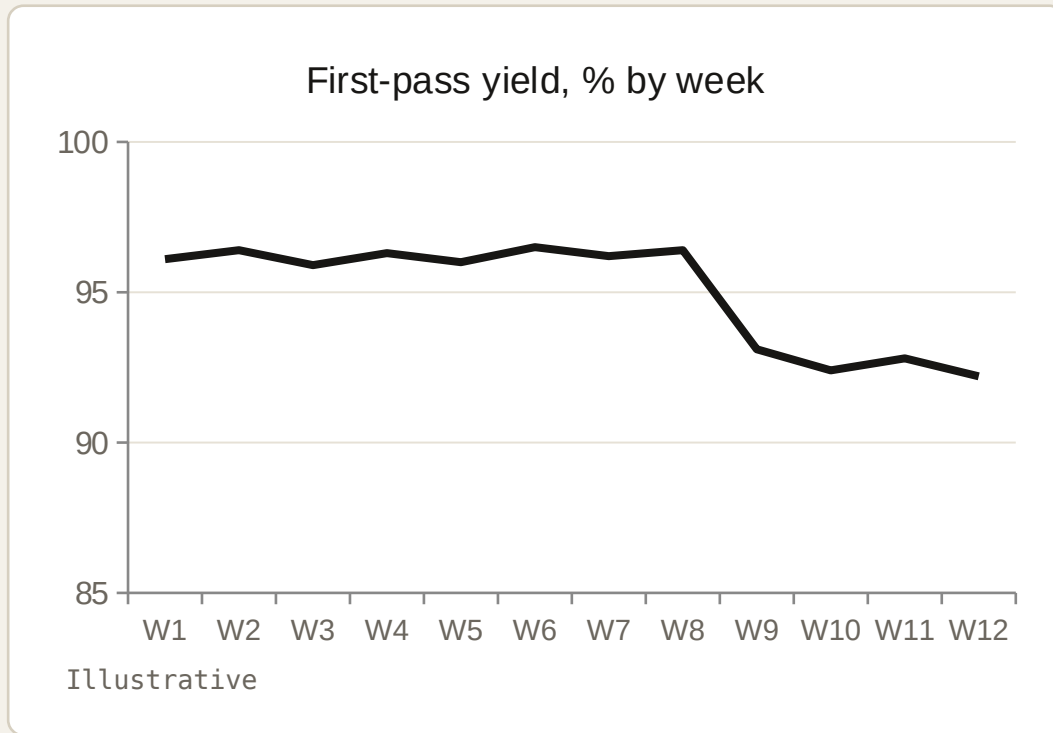
The gemba is where the value is made, and the only place a number can be checked against the thing it measures.

**A language model has never seen anything.**



*The actual place: a Solar flower room*

## Same dip on the dashboard. Two different problems.



### PROCESS DRIFT

#### The work changed.

A new operator · a worn die · a different material lot · a workaround nobody wrote down

### MEASUREMENT OR MODEL DRIFT

#### The logic behind the number changed.

A remapped reason code · a recalibrated sensor · a forecast built on last year's mix · a stale AI model

**The dashboard can't tell them apart.**  
**The people closest to the work can.**

# The drift check: three questions, asked at the gemba

1

## Did the work change?

Watch it against the standard. Ask the operator what's different this week.

**PROCESS DRIFT**  
fix it at the gemba

2

## Did the counting change?

Walk the data path: the sensor, the export, the reason codes, the definition of "good."

**MEASUREMENT DRIFT**  
fix the data path

3

## Did the world move outside the model?

New product, supplier or season? Is today inside what the model was built on?

**MODEL DRIFT**  
fix the model, not the operator

*None of the three can be answered from the dashboard.*

# When the dashboard is supposed to replace the walk

“

The dashboard tells us where to look. It can't tell us what's true.

“

Which number would change your decision? Let's go see what's behind that one.

“

Give me fifteen minutes on the floor before we decide.

“

Come with me. Ten minutes. Then we'll both know.

**1/3** of my packaging project: on the floor

**2/3** at a keyboard: writing it up, rebuilding the spreadsheet, reformatting the A3

Last week, how many hours did you spend at a keyboard producing documents *about* the gemba?

Say a number out loud.

WHERE THOSE HOURS COME FROM

A3

Drafted, reformatted, re-drafted for the steering committee

OEE

A downtime export wrestled into a spreadsheet

SW

A standard work sheet typed up from your notes

RCA

A 5 Whys whiteboard turned into a report someone will read

**The thinking is value-added. The keyboard time is motion waste.**

# AI at the gemba is not...



**A robot  
walking the  
floor**

It has no eyes. It  
has what you hand  
it.



**Another  
dashboard**

You have enough  
numbers nobody  
acts on.



**A replacement  
for the sensei**

Coaching is a  
human relationship.  
It stays one.



**“Solve my  
problem”**

If it solves your  
problem for you, it  
learned nothing,  
and neither did your  
team.

WHAT IT IS

| 1        | 2        | 3        | 4        | 5        | 6         |
|----------|----------|----------|----------|----------|-----------|
| MEDL x10 | MEDL x10 | MEDL x10 | DUMP x10 | DUMP x10 | RS 11 x10 |
| SUSK x12 | MEDL x12 | MEDL x12 | DUMP x12 | RV x12   | RS 11 x12 |
| SUSK x12 | MEDL x12 | MEDL x12 | DUMP x12 | RV x12   | RS 11 x12 |
| SUSK x12 | MEDL x12 | MEDL x12 | DUMP x12 | RV x12   | RS 11 x12 |
| SUSK x12 | MEDL x12 | MEDL x12 | DUMP x12 | RV x12   | RS 11 x12 |
| SUSK x12 | MEDL x12 | MEDL x12 | DUMP x12 | RV x12   | RS 11 x12 |

|          |          |          |          |          |           |
|----------|----------|----------|----------|----------|-----------|
| MEDL x10 | MEDL x10 | MEDL x10 | DUMP x10 | DUMP x10 | RV x10    |
| SUSK x12 | MEDL x12 | MEDL x12 | DUMP x12 | RV x12   | PS 11 x12 |
| SUSK x12 | MEDL x12 | MEDL x12 | DUMP x12 | RV x12   | RS 11 x12 |
| SUSK x12 | MEDL x12 | MEDL x12 | DUMP x12 | RV x12   | RS 11 x12 |
| SUSK x12 | MEDL x12 | MEDL x12 | DUMP x12 | RV x12   | RS 11 x12 |
| SUSK x12 | MEDL x12 | MEDL x12 | DUMP x12 | RV x12   | RS 11 x12 |

|          |          |          |          |          |        |
|----------|----------|----------|----------|----------|--------|
| SUSK x10 | SUSK x10 | DUMP x10 | DUMP x10 | DUMP x10 | AB x10 |
| SUSK x12 | SUSK x12 | MEDL x12 | DUMP x12 | DUMP x12 | AB x12 |
| SUSK x12 | SUSK x12 | MEDL x12 | DUMP x12 | DUMP x12 | AB x12 |
| SUSK x12 | SUSK x12 | MEDL x12 | DUMP x12 | DUMP x12 | AB x12 |
| SUSK x12 | SUSK x12 | MEDL x12 | DUMP x12 | DUMP x12 | AB x12 |
| SUSK x12 | SUSK x12 | MEDL x12 | DUMP x12 | DUMP x12 | RV x12 |

A board from our floor

# The assistant holds the clipboard.

It does the document work so the practitioner can be at the gemba. It works with what you hand it, like a new Black Belt on day one:

- the data file
- the old procedure
- what you personally saw

*You check its work. Its first draft never goes to leadership untouched.*

# A skill is standard work for the assistant.

TWI JOB BREAKDOWN SHEET    Job: OEE from a downtime export    •    Trainer: Paul    •    Trainee: the assistant

| Important step<br>what       | Key point<br>how: what makes or breaks it         | Reason<br>why: the actual consequence          |
|------------------------------|---------------------------------------------------|------------------------------------------------|
| Ask for the export           | State the data-safety line first                  | Names never enter the tool                     |
| Run the calculator           | Never recompute by hand                           | Arithmetic mistakes are silent                 |
| If a column is missing, stop | List what was found vs. needed. Never substitute. | A guessed number is a defect passed downstream |
| Present the result           | Every formula, with the real numbers              | The reader can verify it                       |
| Close                        | Say what still needs a human                      | The practitioner gets the last word            |

You already know how to write one of these. The trainee happens to be software.

# Jidoka for information

Every number carries a source tag.

Changeover time    **47 min**    [observed, 6 runs]

Planned time        **480 min**    [from system: MES]

Ideal cycle time    **0.5 min/unit**    [user estimate]

“elec” code        ?    [NEEDS GEMBA]

## THE ANDON

[NEEDS GEMBA] means nobody knows this yet. The assistant pulled the cord instead of passing a defect downstream.

**Now you go look.**

## No tag? Don't trust it.

# Three more, written into the standard work

02



## Poka-yoke for data

**Missing column?** It says which, and never substitutes a value.

**Reason code it can't map?**  
An explicit Unmapped row.

**OEE over 100%?** Flagged, not printed. Your “ideal” cycle time is probably an average.

03



## Observe, don't solve

The gemba-walk skill asks “**what makes this step difficult?**” Never “why aren't you following the standard?”

It will not hand you a punch list. A walk that only produces corrections is an inspection.

04



## Sensei first, draft on demand

Coaching skills ask before they draft, left to right on the A3.

Say “**just draft it**” and you get a draft in seconds, every unknown marked **[NEEDS GEMBA]**, never invented.

# Respect for people, written in

In the standard work itself. Not buried in a policy.

## 1 Headcount

Ask how many people you can cut and it answers the capacity question, then says once, plainly: **what the organization does with freed capacity is a leadership decision.**

## 2 Names

Before any paste: **leave out names of patients or employees.** Roles and initials are fine.

## 3 Vocabulary

No AI jargon. **It mirrors your words** (PDSA, unit, clinician) and never corrects them.

# A messy downtime export, start to finish

## line1\_downtime.csv

```
Line 1 Stamping - Downtime Export - generated by MES...
date,shift,line,planned_min,...,downtime_reason,downtime_min
2026-09-11,1,Line 1,480,0.5,720,691,29,,Press fault - hydraulic,18
2026-09-11,1,Line 1,,,,,,Breakdown - feeder motor,13
2026-09-11,1,Line 1,,,,,,Changeover die 44 -> 51,24
2026-09-11,1,Line 1,,,,,,Coil jam,6
2026-09-11,1,Line 1,,,,,,Minor stop - sensor,3
2026-09-11,1,Line 1,,,,,,elec,5
2026-09-11,1,Line 1,,,,,,waiting mat'l,3
```

## WATCH FOR

1

**The data-safety line, first**

2

**Every formula, with real numbers**

3

**The Unmapped row**

4

**Where it sends you at the end**

> just run the oee-from-csv skill on line1\_downtime.csv

# What this skill did

AVAILABILITY

**85.0%**

$(480 - 72) \div 480$

PERFORMANCE

**88.2%**

$(0.5 \times 720) \div 408$

QUALITY

**96.0%**

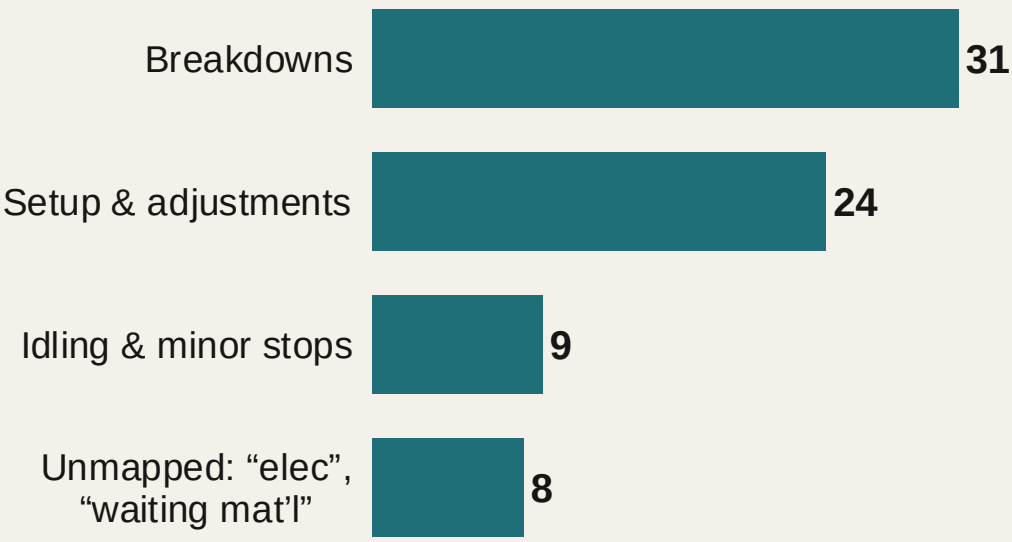
$691 \div 720$

OEE

**72.0%**

$0.850 \times 0.882 \times 0.960$

Downtime by loss category · minutes



WHAT THIS SKILL DID

- OEE 72.0% on 480 planned min; breakdowns are the largest loss at 31 min.
- Export does not separate planned from unplanned downtime; all 72 min treated as unplanned.

WHAT STILL NEEDS A HUMAN

Ideal 0.5 min/unit: best-demonstrated or an average?  
**[ASSUMED – verify]**  
What “elec” means on the floor **[NEEDS GEMBA]**

**Suggested next step:** Take this to the line supervisor and confirm whether the die change was planned downtime.

# Where it goes wrong · and how to start anyway



## It goes wrong when...

- 1 The practitioner stops going.** It amplifies the one who goes and sees; it hollows out the one who doesn't.
- 2 You read the tone, not the tags.** It always sounds confident. Confidence is not a source.
- 3 Confidential data in a chat box.** Know your company's policy before the first paste.



## Start like you'd start anything

- 1 One practitioner who already goes to the gemba.** Never the one who doesn't. You'll just get more documents.
- 2 One skill, one live problem, two weeks.** Not a pilot.
- 3 One measure: did hours at the gemba go up?** Not "did we use AI." If no, stop. It's a clipboard, not a strategy.

TAKE IT WITH YOU

# Seventeen skills. Plain text. Yours.

|                   |                  |                  |
|-------------------|------------------|------------------|
| start-here        | a3-coach         | root-cause       |
| problem-statement | kaizen-charter   | gemba-walk       |
| standard-work     | twi-jbs          | vsm-calc         |
| oeo-from-csv      | 5s-audit         | smed-setup       |
| control-chart     | fmea-builder     | mistake-proofing |
| capacity-planner  | daily-management |                  |



**paulducey.com/gemba**

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No vendor. No subscription. Nothing you  
can't read yourself.

*Not sure which? **start-here** asks one question and routes you to the right skill.*

# Go see.

Let the assistant hold the clipboard.

## TRY THIS MONDAY

- 1 The drift check.** Before you act on a number that moved: did the work, the counting, or the model change?
- 2 Invite, don't argue.** "Come with me. Ten minutes. Then we'll both know."
- 3 Start small.** One practitioner, one skill, two weeks. Did hours at the gemba go up?



Deck, handout, all 17 skills