

The Deep Dive.

How a team can learn to fix itself: using a cardboard game, eight weeks, and a whole lot of honesty.

A practical guide to running a Lean Six Sigma Deep Dive Value Stream Analysis (DDVSA): the phases, the pitfalls, and the human side of process improvement.

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Why I'm writing this.

A little while ago I stood in front of a team of interdepartmental key stakeholders holding a roll of brown paper, a mountain of sticky notes, and a box of cardboard trays. The plan? Turn our entire operation *inside out*. On purpose. And rebuild the way we look at it.

What followed was an eight-week program I call a Deep Dive: an intense, honest, sometimes uncomfortable, and genuinely energizing way of understanding how work really flows through an organization. Not how we think it flows. How it actually does.

This is the playbook I wish I'd had when I started. It's part story, part practical guide. You can borrow what works and skip the parts that hurt.

The one-line version

A Deep Dive Value Stream Analysis (DDVSA) is a structured, team-led investigation of an operation - built on Lean Six Sigma - that turns “we should probably fix that” into a prioritized, costed, owned improvement plan.

What a Deep Dive actually is.

A Deep Dive isn't a consultant parachuting in with a slide deck of answers. It's the opposite. You take the people who *do* the work, give them lean tools, and let them diagnose their own operation from end to end.

The philosophy sits on one deceptively simple idea: optimize the flow, not the silos. Most operations are full of local heroes making their own department look great, while the handovers between departments quietly bleed time, quality, and money. A Deep Dive follows the value stream across every wall, so the whole team sees the same picture at the same time.

What's in it for the team

- Team capabilities built on the job: people learn Lean Six Sigma by using it on their own processes, not in a classroom.
- An integral plan for improvement: one connected plan, instead of ten disconnected department fixes.
- Flow throughout the operation: improvements that help the whole chain, not just one link.
- Better control on quality, cost and delivery: the things customers actually feel.
- A shared, fact-based understanding of how the operation really behaves.

The program at a glance.

A Deep Dive runs roughly two days a week for eight weeks. The workshop weeks are where the analysis happens; the implementation projects that follow can take up to a year or more, tackled step by step. Here's the arc:

Phase	What happens	You walk away with
Prep (wk -6 → 0)	Align on the “burning platform,” collect baseline data, set scope, build the team and book the room.	Scope, a high-level value stream map, data, and a ready team.
Week 1: LSS training	A hands-on lean simulation game teaches 5S, the 7 wastes, flow vs. batch, and pull vs. push.	A team that speaks the same lean language.
Weeks 2–3: Mapping	Map the current-state value stream and processes; build a waste map; dream the ideal state.	Current-state VSM, process maps, waste map.
Week 4-5: Observe	Go to the gemba. Measure real cycle times, waste, inventory and information flow on the floor.	Fact-based observations, not opinions.
Week 6: Analyze	Turn measurements into OPE waterfalls: scheduling, performance and process opportunities.	Quantified opportunities + root causes (Steerco 1).
Week 7: Brainstorm	Generate improvement ideas on top of the facts — flow first, then within steps.	An opportunity map owned by the team.
Week 8: Prioritize	Score impact vs. effort, pick the critical few, write project charters.	A prioritized, costed project plan (Steerco 2).
Kick off	Hand the improvement projects to their teams and start structural improvement.	Live projects with owners and a review rhythm.

Start with a game (yes, really).

Before anyone maps a single real process, the team plays. We run a lean simulation: a miniature supply chain built from cardboard trays and sticky labels, with everyone assigned a role: warehouse, production, dispatch, transport, supplier, and a customer who judges every order against an SLA.

Round 0 is deliberately chaotic: “throw them in the deep end.” Then, round by round, the team introduces lean principles and watches the same operation get calmer and faster: **5S and visual management, then waste elimination, then workload balancing, then one-piece flow and pull**. By the final round they've felt - in their hands - why flow beats batch and why pull beats push.

Why the game matters

People don't change how they work because of a definition on a slide. They change because they experienced the difference. The simulation makes the lean concepts real and safe to fail in. So when the team turns to their actual operation, the ideas already belong to them.

The seven moves that make it work.

1. Preparation — win it before it starts

This is where Deep Dives are quietly won or lost. Set the scene (site characteristics, customer requirements, volumes, the burning platform), assess the SLAs and contracts, and build the right team with clear roles and genuine availability. Collect your baseline data: volumes, KPI targets and scores, scheduling data, labour data, standard tariffs. And book a big room with empty walls: you'll need every inch.

2. Train — give everyone the same lens

Run the simulation and introduce Value Stream Mapping properly: process, material and information flow, inventory points, and data boxes (unit of measure, cycle time, process time, % first-time-right, timeline). The rule that matters most here: write down what you see, not what you know.

3. Map — walk the stream backwards

Go to the gemba and walk the process backwards, starting from the customer. Assign VSM elements across the team, build the current-state map together, and capture every waste observation on a sticky note: by department, by waste type, with initials. Then dream: build the ideal-state map and feel the gap between value-added time and total lead time.

4. Observe — measure real work

Opinions end here; data begins. Build observation sheets straight from the process maps, train the team to measure consistently (*so we compare apples with apples*), and go count. Wear the PPE, stand somewhere safe, introduce yourself, and explain what you're doing: you're measuring the process, never the person.

5. Analyze — build the waterfalls

Feed the measurements into an OPE (Operational Performance Efficiency) model and sort every opportunity into three buckets: scheduling, performance, and process. Sanity-check with the people who know the work, present the waterfalls back to the team, and agree the main conclusions. Linked back to that burning platform. This is Steering Committee moment one.

6. Brainstorm — ideas on top of facts

Now, and only now, generate solutions. Two mindsets do the heavy lifting here: **player vs. victim** (focus on what's within our control) and a healthy suspicion of “we've always done it this way.” Build on the waste map and the ideal-state dream so ideas improve the whole flow, not just single steps.

7. Prioritize — pick the critical few

Re-assess every opportunity so everyone feels heard, then score impact against effort. Pick the critical few, write a shortlist with clear problem statements, choose your countermeasure approach, and estimate benefits and costs per project. Steering Committee moment two turns this into a real project plan — with owners, charters, future-state maps, quick-win tests, and a bi-weekly review rhythm booked in everyone's calendar.

What makes or breaks it.

Critical to success

- Full agreement on the goals: everyone knows why we're here.
- Full sponsorship and championing from the management team.
- The right people, genuinely freed up (this is two days a week for eight-plus weeks).
- Flexibility: the plan will meet reality.
- Honest expectations: the analysis takes weeks. The implementation takes up to a year, step by step.
- Resources still available after the event. The Deep Dive is the start line, not the finish.

Five things I learned leading one.

1. **The room does the work.** Empty walls, brown paper and sticky notes beat any dashboard. When the whole value stream is visible in one space, disagreements turn into discoveries.
2. **“Write what you see, not what you know.”** The hardest and most valuable discipline. Expertise makes us assume; observation makes us certain.
3. **Play beats PowerPoint.** A cardboard game taught more about flow in an hour than a month of meetings.
4. **Player, not victim.** The moment a team stops explaining why things can't change and starts finding what's within their control, everything shifts.
5. **Prioritizing is an act of kindness.** You cannot do everything at once. Choosing the critical few protects your people and actually gets things done.

Should you run a Deep Dive?

If your operation has real handover pain, KPIs that won't budge, and a team that half-suspects the problem is between the departments rather than inside them: probably yes. It asks a lot: time, honesty, and leadership that means it. But what you get back is more than a plan. You get a team that understands its own operation deeply enough to keep improving it long after the brown paper comes off the walls. And a team that's gotten so comfortable working together, that they'll find each other working things out.

Want the checklists?

This playbook is the story and the structure. The full Deep Dive comes with a detailed preparation checklist, a day-by-day workshop schedule, a process inventory, and the simulation game materials.

If you'd like to talk through running one for your team, let's connect.

LEF. Bright, honest, human supply chain. Written by Ellen — founder of LEF., and a firm believer that better operations start with better conversations.