UNCOILING

Manufacturing Supply Chain Concentration Risk Resolution

Worked through the Uncoiling method

Work track

The swirl

Our manufacturing is dangerously concentrated — roughly 70% with a single CM in Shenzhen. Tariffs have hit us twice in eighteen months, eroding margins that were already thin. Our largest broadcast customer, representing about 14% of revenue and roughly $25M in revenue, is now demanding lead times under three weeks; our current Shenzhen operation runs nine to eleven weeks on a good day, and they have signaled they will start looking elsewhere if we cannot close that gap. I have four genuinely different paths in front of me and a board expecting a recommendation in the near term.

Significant factors to consider (1–4)

1. Landed cost and margin erosion are the primary financial test
2. The broadcast customer's three-week lead time requirement is a hard program constraint with a two-quarter forcing function
3. Customer requalification and compliance triggers make any geography change a mandatory external event
4. The tariff environment is structurally unfavorable in both directions

Significant factors to consider (5–8)

5. **Single-CM concentration creates catastrophic operational exposure**
6. **Workforce reality constrains both nearshore and domestic paths**
7. **Capital requirements vary 4-5x across paths with distinct model vulnerabilities**
8. **Execution bandwidth is a hard constraint**

The options

1. **Stay and Harden**
   Maintain production in Shenzhen while aggressively pursuing tariff mitigation

2. **Mexico Nearshore**
   Transition flagship SKU production to a Monterrey CM

3. **US Domestic Line**
   Establish a domestic production line — greenfield or retrofit

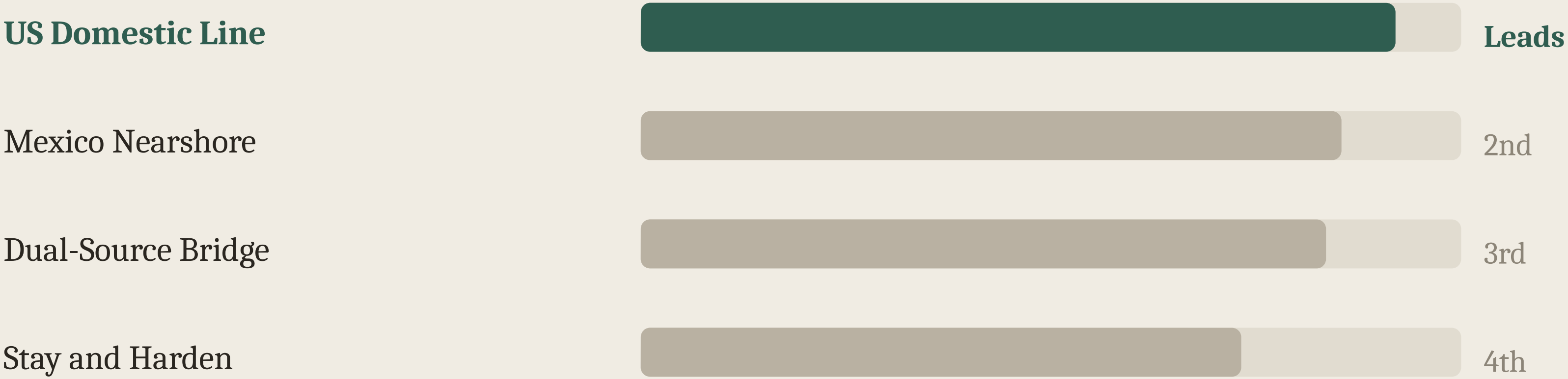
4. **Dual-Source Bridge**
   Run Mexico nearshore and Shenzhen simultaneously as a deliberate two-geography strategy

What mattered

The criteria that decided it, in the order they were weighted:

1. **Tariff and regulatory durability**
2. **Lead time credibility within the two-quarter window**
3. **Customer compliance manageability**
4. **Capital efficiency and financial model robustness**
5. **Execution feasibility given bandwidth constraints**
6. **Concentration risk reduction**
7. **Speed to value**

How they stacked up



Relative standing once the weighting is applied. The full criterion-by-criterion matrix is in the appendix and the document.

THE RECOMMENDATION

US Domestic Line

This recommendation reflects: - The tariff environment is not self-correcting, and the Mexico path carries three compounding regulatory exposures — RVC qualification threading a needle, the 2026 USMCA joint review, and an unresolved DFARS question — all maturing inside the payback window of a $4-6M capital commitment. The domestic line avoids all three.

The tradeoff: The chosen path costs the following relative to alternatives: - Capital intensity: $12-18M (preliminary) against $4-6M for Mexico or Dual-Source, with Dana's payback model not closing inside five years at current volumes without flagship customer expansion or pricing power not currently in hand.

Confidence **HIGH**

A recommendation, not a verdict.

The analysis points clearly to a recommendation — but the decision, and the timing, remain yours. Each significant factor and the full scoring detail follow in the appendix.

Appendix

Each significant factor in full · How the options rated

SIGNIFICANT FACTOR · 1 OF 8

Landed cost and margin erosion are the primary financial test — current gross margins on flagship SKUs have fallen from ~48% to 38-42% due to Section 301 tariffs, and the full spread across options is not yet finalized pending HTS verification and RVC qualification analysis.

WHAT IT MEANS

No path can be responsibly recommended until Dana's team completes the landed cost model with current HTS rates verified by Sam — particularly for PCB assembly classifications — because the spread between options, and the true cost of staying on the current path, may be materially different from what was presented to the board last quarter.

SIGNIFICANT FACTOR · 2 OF 8

The broadcast customer's three-week lead time requirement is a hard program constraint with a two-quarter forcing function — formal dual-vendor qualification begins in roughly six months and is very difficult to reverse once opened.

WHAT IT MEANS

Any recommended path must either credibly close the lead time gap within approximately two quarters, or include a specific customer communication strategy — a milestone-backed roadmap — that buys time while the structural solution is built. The board recommendation and the customer conversation are linked: the decision the board approves is also the foundation of what Priya brings to that account.

SIGNIFICANT FACTOR · 3 OF 8

Customer requalification and compliance triggers make any geography change a mandatory external event — the broadcast customer faces an 8-12 week vendor audit, and the DoD distributor faces a potential DFARS country-of-origin review that could be structurally disqualifying for that account.

WHAT IT MEANS

Any path involving a new manufacturing geography must be evaluated not just for its own execution feasibility but for the customer compliance events it triggers — sequencing and communication strategy are as important as the manufacturing decision itself. Sam's DFARS analysis must be completed before any Mexico-heavy path can be responsibly recommended to the board.

SIGNIFICANT FACTOR · 4 OF 8

The tariff environment is structurally unfavorable in both directions — Section 301 relief has no credible 24-month timeline, and the Mexico path sits on a regulatory ledge given 58-62% RVC straddling the 60% USMCA threshold ahead of the 2026 joint review.

WHAT IT MEANS

No option can assume a stable tariff baseline. The Stay and Harden path faces continued and potentially worsening Section 301 exposure. The Mexico path reduces tariff burden today but the financial model must be stress-tested against a scenario where USMCA qualification is lost or degraded after the 2026 review — which would land inside the payback window of the capital investment.

SIGNIFICANT FACTOR · 5 OF 8

Single-CM concentration creates catastrophic operational exposure — a hard break from the Shenzhen CM would cost six to nine months of production disruption, with tooling, jigs, and institutional knowledge embedded in a relationship we do not fully control.

WHAT IT MEANS

The current manufacturing footprint is not just cost-inefficient — it is operationally fragile in ways that have already materialized once and carry tail risks significant enough to warrant board-level visibility. Any path that does not meaningfully reduce single-CM concentration leaves this exposure unaddressed, and that exposure should be visible in the board recommendation regardless of which path is chosen.

SIGNIFICANT FACTOR · 6 OF 8

Workforce reality constrains both nearshore and domestic paths — structural turnover in Mexico creates recurring requalification cycles for a precision product, and the US lacks skilled electronics assembly labor at scale with an 18-24 month hiring horizon.

WHAT IT MEANS

Workforce is a first-order execution constraint on both alternative geographies, not a footnote. The domestic path's 18-24 month hiring horizon is structurally incompatible with the two-quarter customer forcing function. The Mexico path's turnover dynamic creates a recurring quality and requalification burden that must be priced into the total cost of ownership model, not just the initial transition cost.

SIGNIFICANT FACTOR · 7 OF 8

Capital requirements vary 4-5x across paths with distinct model vulnerabilities — from $2-3M working capital for Stay and Harden to $12-18M for a domestic line, and each path's financial model is sensitive to the specific uncertainties already surfaced.

WHAT IT MEANS

Dana's IRR analysis must be stress-tested against downside assumptions for each path — not just base case — because the paths most attractive on base-case assumptions are precisely those whose models are most sensitive to the uncertainties already surfaced: RVC qualification, demand growth, and pricing power. The capital decision and the regulatory/workforce risk assessments are not separable.

SIGNIFICANT FACTOR · 8 OF 8

Execution bandwidth is a hard constraint — the operations team has approximately one and a half qualified transition leads, making any path requiring simultaneous major workstreams dependent on an external program manager hire with its own cost and ramp delay.

WHAT IT MEANS

Practically, the operations team can run one major transition workstream well or two workstreams poorly. Any path that requires simultaneous execution tracks — and both Mexico and domestic do — must either accept meaningful quality or transition risk on one of them, or budget for an external program manager hire and the 60-90 day ramp before that person is effective.

How the options rated

Each option scored against each criterion — 1 to 5, where 5 is best.

Criterion	Stay and Harden	Mexico Nearshore	US Domestic Line	Dual-Source Bridge
Tariff and regulatory durability	1	3	**5**	4
Lead time credibility within the two-quarter window	1	3	**4**	2
Customer compliance manageability	2	4	**5**	3
Capital efficiency and financial model robustness	4	3	**1**	2
Execution feasibility given bandwidth constraints	5	3	**1**	2
Concentration risk reduction	1	2	**4**	5
Speed to value	4	2	**1**	3

The recommended option is the tinted column. Weighting follows the criterion ranking and is applied silently.