

SOLDOUT!

Executive Feasibility Snapshot

Assessment of standard Unity tooling, custom retail-economy systems, and the deliberate rejection of Houdini-heavy workflows and early multiplayer scope

Product concept

SoldOut! is a retail management and economic simulation built around goods flow rather than spectacle-first world generation. Its value sits in pallets, cartons, unpacking, shelf distribution, warehouse handling, wholesale purchasing, occasional small-lot purchasing, dynamic customer demand, and a simulated market layer that reacts to supply shocks, weather events, factory fires, overproduction, and other pricing events.

Technical foundation

Unity Engine / C#

ProBuilder + Polybrush

Prefabs + Grid Snapping

ScriptableObjects

Unity UI for interfaces

Executive decision

Proceed with a standard Unity workflow, a custom data-driven warehouse and economy layer, and a single-player-first release on Steam. Keep Houdini-heavy workflows and early multiplayer out of the current scope. Defer advanced inventory rules, supplier behavior, logistics loops, and multiplayer economy systems to later phases.

Reason: this genre's leverage comes less from procedural geometry and more from reliable simulation design. Houdini would add setup burden without proportional return, while multiplayer would materially expand implementation risk and ship time.

Standard Unity workflow

ProBuilder, Polybrush, Prefabs, grid-based layout, and ScriptableObject - driven data structures. Assessment: right-sized production stack for this type of environment.

Custom retail simulation core

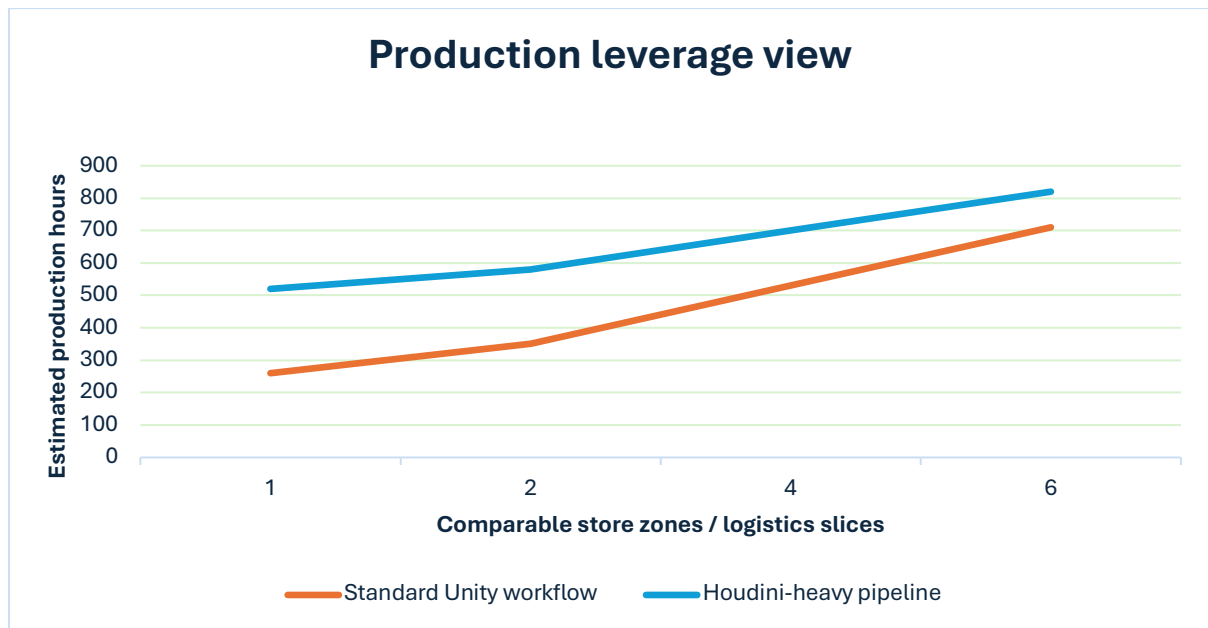
Pallets, cartons, product units, supplier channels, customer demand, price reactions, and event-driven market shifts. Assessment: highest-value system investment.

Deferred multiplayer

Management benchmark: about 2.4x total implementation effort for a comparable ship-ready MVP. Assessment: not justified during the current stage.

Production leverage view

Illustrative hours model shown below; the chart compares a standard Unity workflow with a Houdini-heavy procedural workflow as store and logistics scope expands.



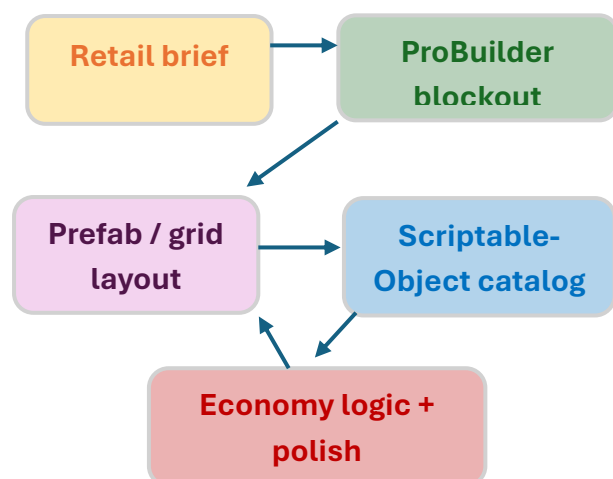
Note: the plotted curve is a management illustration. It uses a conservative production model rather than measured post-build telemetry. Actual effort will vary with art direction, simulation depth, optimization needs, and the amount of custom editor tooling that becomes necessary later.

Benchmark model and management interpretation

Illustrative benchmark assumptions

- Single-player release planning; multiplayer stays out of the baseline model.
- Standard Unity benchmark: about 260 hours for a first production-ready store slice including blockout, shelf prefabs, grid setup, product schema, and warehouse interactions.
- Additional comparable slice after setup: about 90 hours.
- Houdini benchmark: about 520 hours initial investment; additional comparable slice after setup: about 60 hours.
- Model excludes certification, marketing assets, voice content, and late-cycle QA spikes.

Why the leverage stays with standard Unity



For SoldOut!, the real burden sits in the simulation layer: stock states, supplier logic, price reactions, demand curves, warehouse throughput, and the link between sourcing and shelf availability. Because the playable space is mostly simple architecture and repeated fixtures, the project does not gain enough from a procedural toolchain to justify its setup cost.

Decision framework

Illustrative production benchmark, multiplayer burden estimate, and management interpretation for a single-player-first retail economy simulator. Illustrative production benchmark (hours)

Store/ logistics scope	Standard Unity workflow	Houdini-heavy pipeline	Hours avoided by Unity
1 logistic slice	260	520	260
2 logistic slices	350	580	230
4 logistic slices	530	700	170
6 logistic slices	710	820	110

Labor-value illustration

At a modeled 1,100-hour single-player MVP, a 2.4x multiplayer path implies about 2,640 hours total – roughly 1,540 extra hours.

Multiplayer expansion

2.4x total MVP effort vs. comparable single-player build.
Interpretation: the realistic burden band is about 2x-3x once synchronized simulation, authority, persistence, QA, and live support are included.

Risk and management interpretation

Risk area	Impact	Operational response	Expected outcome
Economy-system complexity	High	Lock product, event, and stock schemas early.	Depth grows where value sits.
Houdini overengineering	Medium	Keep layout in standard Unity; add tools only for real bottlenecks.	Lower setup and debugging burden.
Scope creep in realism	High	Cap initial store size, supplier types, and event count.	Ambition stays staged and shippable.
Early multiplayer burden	High	Defer authority, persistence, anti-cheat, and live ops.	Core economy loop ships sooner.
Performance / entity count	High	Profile shelf density, shopper AI, and UI refresh loops.	Stable simulation at scale.

Management recommendation

SoldOut! should proceed as a Steam-bound single-player retail economy simulator built in Unity with ProBuilder, Prefabs, grid-based layout discipline, ScriptableObject-driven product data, and a purpose-built warehouse / economy system. Houdini should remain out of scope because the geometry does not justify the tooling investment, and multiplayer should remain a later phase because the additional burden is better estimated in the 2x-3x range than the 1.5x range for this kind of synchronized simulation.