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Best Practices for Innovating 0-to-1 Products Within Large Enterprise Organizations

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Abstract— *This article examines how large enterprise organizations can reliably create 0-to-1 products under structural constraints such as multi-layer governance, legacy operating models, and uncertainty in market selection. The study focuses on one specific contribution developed by the author: a data-driven mapping tool embedded in a market expansion platform for de-novo growth and acquisition screening. The novelty of the article lies in combining research on opportunity framing, experimentation discipline, governance design, and innovation structures with an applied product case in which multi-source market data were converted into a visual decision system for location prioritization. The aim is to identify enterprise practices that increase the probability of launching a first viable product while preserving strategic alignment and decision quality. The material base combines recent peer-reviewed literature with an analytical reconstruction of the product work on a mapping platform that integrated reimbursement signals, patient-segmentation data, media-efficiency indicators, and market restrictions into a unified scoring logic. Methods include comparative analysis, analytical synthesis, and conceptual modeling. The results show that enterprise 0-to-1 success improves when opportunity selection is treated as a productized decision system rather than a one-time strategic exercise. The article is relevant for product leaders designing internal decision platforms, growth tools, and other data-intensive products inside large organizations.*

Keywords— 0-to-1 innovation, enterprise product management, market expansion platform, data-driven mapping tool, opportunity selection, site prioritization, experimentation, innovation governance, decision systems, de-novo growth.

I. INTRODUCTION

Large enterprises regularly face a structural asymmetry: resources for scaling are abundant, while conditions for early uncertainty reduction remain fragile because decision rights, compliance gates, and platform dependencies amplify the cost of learning. 0-to-1 product work is therefore less constrained by ideation capacity than by the organization's ability to convert weak signals into falsifiable hypotheses, execute learning loops at high cadence, and secure governance legitimacy without freezing iteration. The purpose of this article is to articulate best practices that enable enterprise teams to ship first-in-class products while minimizing coordination overhead and avoiding premature scale commitments.

The study addresses three tasks:

1) to systematize enterprise practices that connect opportunity selection to an executable first product boundary;

2) to specify how experimentation infrastructure and incentives convert discovery into validated roadmap movement;

3) to explain how innovation structures (labs, venture studios, venture-like units) and governance systems coordinate autonomy with integration during early scaling.

Novelty consists in linking innovation governance (modernized stage-gate and portfolio decision logic) with experimentation theory, innovation-structure design, and digital product management shifts induced by AI, short feedback loops, and ecosystem coupling.

To ground the analysis in a concrete enterprise contribution, the article draws on the author's experience developing a data-driven mapping tool within a broader market-expansion platform. The product was built to improve de-novo and acquisition decisions by converting dispersed market signals into a structured location-selection workflow. Rather than relying on executive intuition or isolated spreadsheets, the tool translated reimbursement conditions, patient segmentation patterns, media cost efficiency, payor restrictions, and operating model constraints into a comparative scoring logic displayed on a map interface. In practical terms, the contribution belongs to the class of 0-to-1 internal decision products: it established a new product category inside the organization, created a repeatable market-screening method, and connected strategic growth choices to a usable analytical artifact.

II. MATERIALS AND METHODS

The evidence base draws on recent scientific sources that collectively cover governance modernization, discovery and opportunity framing, experimentation mechanisms, structural vehicles for exploration, and digital product management under AI and ecosystem conditions. R. G. Cooper analyzed fifth-generation stage-gate design and its implications for speed, de-bureaucratization, and hybridization with iterative development [1]. A. Drouin and coauthors introduced WorkArena and BrowserGym to evaluate the feasibility limits and reliability gaps of enterprise workflow automation via LLM-based agents [2]. M. Gruber and S. Tal described the Market Opportunity Navigator as a design-science artifact for structured "where to play" choices across new and established firms [3]. S. Magistretti and colleagues empirically tested how early and frequent experimentation contributes to innovation effectiveness and how digital technologies strengthen this relationship [4]. D. Moiana and coauthors synthesized venture studio design choices and challenges, clarifying repeatable venture-building logics relevant for enterprise venturing interfaces [5]. H. Holmström Olsson and J. Bosch documented nine approaches in strategic digital product management under DevOps, data/AI, and ecosystem coupling [6]. F. Osorio and colleagues explained how strategic intent shapes innovation lab trajectories and function in multi-stakeholder innovation settings [7]. A. Rodríguez-Peña provided evidence on corporate entrepreneurship components and performance relationships in large firms, informing governance risk calibration for venturing [8]. R. Ros, E. Bjarnason, and P. Runeson built a theory of factors affecting continuous experimentation and why adoption value differs across organizations [9]. R. J. van der Meer, C. J. Selig, and C. J. Stettina proposed an empirically grounded taxonomy of innovation lab types in large organizations and design implications for interfacing with the core business [10].

In addition to the scientific literature, the article uses an applied case from the product work on market selection for de novo expansion and acquisitions. In that case, the author developed a Google Maps-based analytical platform that combined five decision layers: reimbursement by geography, patient population segments, media spend and effectiveness, payor contracting restrictions, and operating-model fit. The analytical workflow screened all 50 states, narrowed the search to 27, then to 18, covered 31 DMAs, and generated approximately 150 potential sites that outperformed the average existing location on the selected criteria. The platform then translated the resulting opportunity profile into a visual market optimization score and bubble-based prioritization logic for downstream site diligence. The case is used in this article as an applied product example showing how enterprise opportunity framing can be converted into a

reusable internal decision system rather than a one-off planning exercise.

For writing the article, comparative analysis, source analysis, analytic synthesis, and conceptual modeling were applied to derive enterprise-ready practice patterns and to structure a coherent set of mechanisms spanning discovery, validation, governance, and scaling.

III. RESULTS

Enterprise 0-to-1 success depends less on "speed" as a generic metric and more on the organization's ability to preserve learning velocity while maintaining legitimacy of spend, security posture, and architectural decisions. Across the analyzed sources, practices converge around four coupled mechanisms:

i) explicit opportunity framing that bounds the first product;

ii) disciplined experimentation supported by infrastructure and incentives;

iii) an organizational vehicle that protects exploration while keeping a credible integration path;

iv) governance that authorizes iteration without forcing premature commitments.

Opportunity framing in enterprise settings requires a decision discipline that is more granular than "big vision vs MVP." The Market Opportunity Navigator is instructive here because it treats the opportunity choice as a structured design problem—defining a primary market, adjacent options, and the assumptions that must be validated before resource escalation [3]. In enterprise environments, this practice reduces a standard failure mode: building an internally popular solution whose external or cross-org demand was never explicitly tested. The practical implication for large organizations is that 0-to-1 work begins with a falsifiable "where to play" statement tied to measurable adoption pathways (internal workflow penetration, measurable compliance cost reduction, external revenue conversion), not with a feature list.

The mapping platform offers a concrete enterprise example of how this logic works in practice. Instead of treating market selection as a static strategy deck, the product converted "where to play" into a multi-layer decision model. The first layer evaluated reimbursement conditions by geography using Medicare rates, commercial reimbursement benchmarks, and procedure-volume weighting at the zip-code level. The second layer modeled patient fit by matching three years of internal patient-address data to Nielsen PRIZM segments and clustering the organization's core patient base. The third layer estimated market-entry efficiency through DMA-level media spend and advertising intensity. Additional decision layers captured payor policy restrictions and operating-model suitability. By integrating these inputs into a visual scoring system, the product turned expansion strategy into a repeatable selection mechanism that reduced noise in early-stage growth decisions and made priority markets legible to senior leadership.

Experimentation then becomes the core conversion layer between opportunity framing and roadmap movement. Two complementary empirical lenses strengthen this claim. First, design thinking projects show that early experimentation is positively associated with project efficiency, while both early and frequent experimentation are associated with innovation effectiveness; digital technologies amplify the benefits of early experimentation [4]. Second, continuous experimentation research demonstrates that outcomes vary systematically depending on the presence of processes and infrastructure, the complexity of the user problem, and incentive structures that motivate experimentation rather than local optimization [9]. Together, these findings imply that enterprises cannot "declare" experimentation; they operationalize it by installing a measurable learning system: hypothesis articulation, experiment design, instrumentation, decision rules, and incentives aligned with validated learning rather than artifact production.

From a 0-to-1 product perspective, the platform mattered not because it produced a mathematically elegant score, but because it reorganized experimentation around market-entry decisions. The map interface enabled comparisons of candidate

locations before irreversible commitments in leasing, staffing, contracting, and launch sequencing. The output was not a final site decision by itself; rather, it created an evidence-ranked shortlist that could be escalated into site-specific diligence. In the implementation, this reduced the search space from a nationwide scan to a manageable set of high-potential opportunities and helped secure leadership buy-in for actual expansion decisions. The platform was subsequently used to select sites for four de novo clinics in 2017 and eight de novo clinics in 2018, illustrating how a first internal product can move from an analytical prototype to an operational growth instrument.

Governance becomes a performance variable once experimentation starts producing evidence that contradicts prior plans. Fifth-generation stage-gate modernization offers a valuable template for reconciling governance with iteration: the gating logic is preserved as a risk-management and portfolio tool, while bureaucracy is reduced and concurrency/parallelism and iterative development are introduced to shorten decision latency [1]. In an enterprise 0-to-1 setting, this shifts the function of gates: from approving large batches of scope to authorizing the next learning tranche and integration commitments. The gate content changes accordingly: evidence of validated assumptions, security and privacy posture, architectural reversibility, and economic rationale for escalation.

Structural vehicles—innovation labs and venture studios—serve different purposes and are not interchangeable. Innovation labs, when treated as generic "creative spaces," tend to produce outputs that struggle to cross the boundary into the core business. The innovation lab taxonomy highlights that lab types differ in intent, interface design, and appropriate outcomes; alignment between strategic intent and the chosen lab type strongly conditions whether lab outputs integrate or remain isolated [10]. Complementing this, innovation lab strategy research shows that strategic intent stances shape trajectories and functions of labs under stable and changing conditions, affecting how labs broker collaboration and protect their ethos while responding to external pressures [7]. In practice, enterprise product leaders can use labs to protect exploration and access multi-stakeholder knowledge. Still, they must explicitly embed the "handoff contract" in the core: ownership transfer, operational readiness criteria, and platform integration obligations.

Venture studios add another design logic: repeatable venture building with standardized activities and governance patterns, but their effectiveness depends on resolving misaligned incentives and "phantom founder" dynamics after spin-out [5]. For enterprises, the best transferable practice is not copying a studio brand, but adopting the studio's explicit design choices: how teams are staffed, how ideas enter and exit the pipeline, how equity-like incentives map to enterprise constraints, and how follow-on funding is conditioned on validated progress.

Digital product management research adds a critical layer for enterprises pursuing 0-to-1 software-intensive, ecosystem-coupled products. Strategic digital product management approaches highlight how DevOps and short feedback loops, data and AI, and digital ecosystems reshape product decisions—particularly the shift toward continuous discovery-delivery coupling, instrumentation-driven prioritization, and ecosystem dependency management [6]. This matters because enterprise 0-to-1 products often fail not in feature creation but in adoption frictions at the boundaries: identity and access management, workflow fit, data quality, and integration stability.

Corporate entrepreneurship evidence further informs risk calibration. Findings on large firms indicate that corporate entrepreneurship components can relate differently to profitability and growth across environments; corporate venturing, in particular, can show adverse profitability associations under certain conditions, suggesting that governance must explicitly manage venturing costs, time horizons, and integration risks rather than assuming monotonic benefits [8]. For enterprise leaders, this reinforces a practice: venturing needs portfolio discipline and staged commitment, not only cultural encouragement.

Agentic AI workflow automation creates a modern variant of enterprise 0-to-1 risk: products that act, not merely recommend. WorkArena research demonstrates that enterprise web agents can appear

promising while still leaving a substantial gap to full task automation; evaluation exposes reliability differences and highlights the need for standardized environments and traceable observation/action interfaces [2]. This evidence directly supports a best practice for agentic AI 0-to-1 products: treat benchmarked task completion, controllability, and auditability as first-class product requirements, not as post-launch refinements.

Figure 1 presents the operating logic of the data-driven mapping tool and clarifies how enterprise opportunity framing can be translated into a reusable product artifact for market expansion.

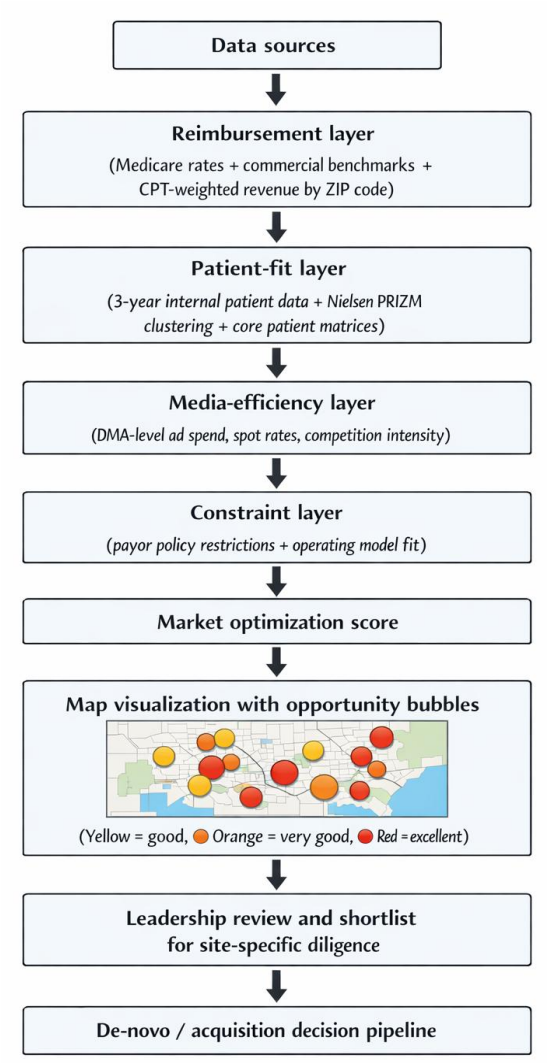

Fig.1. Multi-layer decision architecture of a data-driven mapping tool for market expansion and site prioritization (author's analytical reconstruction)

This architecture is product-relevant for two reasons. First, it makes opportunity selection operational by embedding strategic criteria into a decision surface that can be reused, audited, and improved over time. Second, it separates market-level prioritization from site-level diligence, protecting early exploration from premature commitments while preserving a clear path to execution. In enterprise settings, this distinction improves governance quality because senior leaders can authorize deeper investigation based on transparent scoring logic rather than fragmented qualitative judgments.

IV. DISCUSSION

The synthesized evidence supports the view that enterprise 0-to-1 innovation is an operating system problem: practice effectiveness depends on how opportunity decisions, experimentation loops, organizational vehicles, and governance mutually reinforce one another. For a Senior Product Manager working across internal platforms and external enterprise offerings, the practical center of gravity lies in converting uncertainty into authorized commitments. The most fragile point in large organizations is the boundary between discovery evidence and governance legitimacy—mainly when platform security, compliance, and cross-org dependencies impose irreversible costs.

In many large organizations, market expansion is treated as an episodic strategic exercise owned by senior management, consultants, or finance teams. The contribution followed a different logic: it productized expansion intelligence into a visual analytical system that encoded reusable decision rules. That shift matters because 0-to-1 value in enterprises often emerges not from an externally sold application, but from an internal product that changes how capital allocation, location selection, and growth sequencing are performed. Under that logic, the data-driven mapping tool was not a support spreadsheet with better visuals; it functioned as a new enterprise decision product with direct implications for expansion governance and portfolio quality.

Figure 2 presents how heterogeneous inputs are systematically transformed into a ranked set of expansion decisions. Unlike Figure 1, which illustrates the system's architectural composition, this diagram explicates the operational pathway from raw signals to enterprise-level outcomes, emphasizing the sequential transformation and aggregation logic underlying market prioritization.

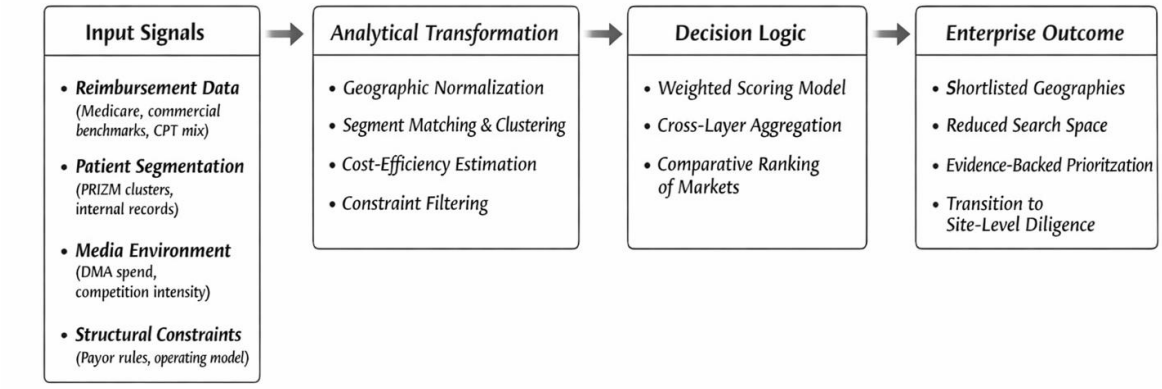

Fig.2. Transformation of multi-layer inputs into enterprise decision outputs in the mapping platform (author's analytical reconstruction)

A second tension concerns autonomy versus integration. Innovation labs and venture studios can create "local excellence" that does not survive contact with enterprise reality—identity systems, governance, procurement, data access policies, and legacy workflows. The sources imply that success depends on making integration a designed deliverable rather than an afterthought: lab intent must match lab type and interface design [10], lab trajectories depend on strategic intent under pressure [7], and venture studio models require explicit governance for incentives and post-spinout alignment [5]. In enterprise product work, this translates into a dual mandate: protect exploration while progressively reducing integration uncertainty through staged architectural commitments and cross-org contracts.

Table 1 reframes governance as a set of design choices rather than mere approvals. It differentiates decision rights and evidence requirements across early phases, which is especially relevant for agentic AI workflow automation, where safety and auditability are inseparable from product value.

Table 1: Governance pathway for scaling an internal market-expansion product in a large enterprise [1–10]

Phase	Dominant decision right	Evidence required	Governance outcome
Nationwide scan	Product / strategy leadership	Initial filter logic and data coverage	Approve first screening model
Market narrowing	Cross-functional review	Ranked states, DMAs, and high-potential opportunities	Approve deeper market review
Visual prioritization	Senior leadership	Map-based opportunity clusters and market optimization score	Approve shortlist candidates
Site-specific diligence	Real estate / operations / finance / business leads	Parking, signage, traffic, density, co-tenants, lease terms, local restrictions	Approve specific de-novo or acquisition targets
Expansion commitment	Portfolio governance	Final business case and implementation readiness	Authorize launch pipeline

Startup principles transfer into large enterprises only when opportunity selection is converted into an evidence-bearing operating mechanism. The mapping-platform case shows that one productive route is to turn expansion intelligence into an internal product with explicit inputs, scoring logic, visual outputs, and decision checkpoints. Under this model, product management extends beyond interface design or roadmap planning; it structures how organizations choose markets, compare alternatives, and commit resources. In enterprise environments, the strategic payoff lies in replacing episodic judgment with a repeatable decision-making process that improves consistency, transparency, and expansion readiness.

V. CONCLUSION

Enterprise 0-to-1 execution improves when opportunity selection is designed as a reusable product rather than handled as a one-time strategic exercise. The analyzed literature shows that early-stage product success depends on disciplined framing, measurable learning, staged governance, and integration planning. The market-expansion case adds an applied illustration of this logic: a data-driven mapping tool transformed dispersed market information into a structured decision platform for de novo growth and acquisition screening. By combining reimbursement signals, patient segmentation patterns, media efficiency indicators, policy restrictions, and operating model considerations, the product created a transparent prioritization workflow and narrowed the search space for expansion decisions. For large enterprises, this case supports a broader conclusion: internal decision systems can serve as genuine 0-to-1 products when they reshape how strategy is executed, how evidence is reviewed, and how investment choices are made.

REFERENCES

[1] Cooper, R. G. (2022). The 5th Generation Stage-Gate idea-to-launch process. IEEE Engineering Management Review, 50(4), 43–55. https://doi.org/10.1109/EMR.2022.3222937

[2] Drouin, A., Gasse, M., Caccia, M., Laradji, I. H., Del Verme, M., Marty, T., Boisvert, L., Thakkar, M., Cappart, Q., Vazquez, D., Chapados, N., & Lacoste, A. (2024). WorkArena: How capable are web agents at solving common knowledge work tasks? arXiv. https://doi.org/10.48550/arXiv.2403.07718

[3] Gruber, M., & Tal, S. (2024). Reflecting on the creation of the Market Opportunity Navigator (4th tool in the Lean Startup). Journal of Business Venturing Design, 3, 100017. https://doi.org/10.1016/j.jbvd.2023.100017

[4] Magistretti, S., Dell'Era, C., Candi, M., Swan, S. K., Bianchi, M., Calabretta, G., Stigliani, I., & Verganti, R. (2025). Unpacking experimentation in design thinking: Contributions to innovation performance and the moderating role of digital technologies. Technovation, 141, 103187. https://doi.org/10.1016/j.technovation.2025.103187

[5] Moiana, D., Ghezzi, A., & Rangone, A. (2025). Venture studios beyond the hype: Key challenges and a way forward. Business Horizons (Advance online publication). https://doi.org/10.1016/j.bushor.2025.09.001

[6] Holmström Olsson, H., & Bosch, J. (2025). Strategic digital product management: Nine approaches. Information and Software Technology, 177, 107594. https://doi.org/10.1016/j.infsof.2024.107594

[7] Osorio, F., Giones, F., Dupont, L., & Camargo, M. (2025). Innovation labs strategy: Unfolding the multifaceted role of strategic intent. Technovation, 141, 103170. https://doi.org/10.1016/j.technovation.2025.103170

[8] Rodríguez-Peña, A. (2023). Corporate entrepreneurship and firm performance relationship under the moderating effect of environmental dynamism: Replication and extension analysis. Journal of International Entrepreneurship, 21, 550–585. https://doi.org/10.1007/s10843-023-00338-1

[9] Ros, R., Bjarnason, E., & Runeson, P. (2024). A theory of factors affecting continuous experimentation (FACE). Empirical Software Engineering, 29, 21. https://doi.org/10.1007/s10664-023-10358-z

[10] van der Meer, R. J., Selig, C. J., & Stettina, C. J. (2021). Innovation labs: A taxonomy of four different types. In 2021 IEEE International Conference on Engineering, Technology and Innovation (ICE/ITMC) (pp. 1–9). IEEE. https://doi.org/10.1109/ICE/ITMC52061.2021.9570259