INNOVATION RESEARCH INTERCHANGE

Accelerating Value Creation

The Challenge of Horizon 2: Implications for Effective Opportunity Development

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SUMMARY

This whitepaper provides guidance on how to successfully implement a governance framework around Horizon 2 (H2) opportunities. H2 focuses on identifying and transforming favorable innovations into viable prototypes through a development infrastructure, with leaders often finding its management complexity challenging. Success in H2 necessitates a commitment to fostering an organizational culture that embraces failure, supports decision satisfaction, facilitates transitions, and encourages cross-functional collaboration.

Key Takeaways

- **H2 needs a dedicated governance framework.** H2 opportunity development is complex, characterized by conflict and risk due to ongoing learnings and pivots. It requires a dedicated governance framework to successfully manage and transition H2 opportunities.
- **Attune your team to looking for new opportunities.** While new opportunities originate from all horizons, H2 opportunities are unique in that successful identification of market adjacencies using existing resources or innovations can lead to brand extension and diversification of revenue streams. New opportunities can be identified via unexpected and pre-existing sources such as employees, suppliers, affiliates, and customers.

- **Establish an intrapreneurial culture.** Best practices for leaders navigating H2 include a culture that embraces risk-taking, cross-functional teams, a forward-thinking mindset, an intrapreneurship approach, and commitment to continuous improvement.
- **Get leadership on board.** Leadership buy-in and support are crucial for effective H2 execution.

Introduction

The components of the Three Horizons Model are: Horizon 1 (H1), characterized by near-term projects within the current business planning cycle; Horizon 2 (H2), occurring 2–5 years before release and fitting between today's need for projects, production, and certainty and the uncertain future; and Horizon 3 (H3) comprising long-term concepts and emerging paradigms, nominally 5+ years in advance of market release (Blank, 2019).

H2 is a unique period of opportunity development. Executing this process correctly can make all the difference in a company's long-term success. Leaders often fail to appreciate the unique demands required for successful H2 opportunity development. Further, H2 managers must guide opportunity development forward while being hampered by limited data, which makes it difficult to judge when to bring together ideas and resources during early-stage development. This complexity makes H2 the most demanding development stage and essential to the creation of next-generation core business products (Simoudis, 2017). Intrapreneurs are well suited to apply tools and methods to accomplish this particularly skilled job while effectively navigating the nuances of H2 (Desouza, 2011).

Methodology

A triangulation of research methods was used for our study, including a literature review of several hundred relevant articles. Sixty-minute interviews were conducted that followed a set interview script in addition to desk research. This culminated in the creation of an H2 opportunity governance framework design through collaboration with selected Innovation Research Interchange (IRI) members using high-level qualitative research methodologies.

Our data analysis revealed 19 noteworthy practices that we synthesized into six key themes. These themes provide practical approaches for organizations engaged in evolving their H2 opportunity development practices and yielding greater decision satisfaction.

Literature Review

Baghai, Coley, and White (2000) first formulated the concept of delineating “horizons” to product development stages in their book *Alchemy of Growth*. The key to this segmentation approach lies in recognizing the successive maturity stages resulting in differing types of projects (Terwiesch et al. 2008; Nagji et al. 2012). It makes sense that leaders want to manage opportunities that are more innovative (or even speculative) in nature differently than operational projects affecting current affairs. While H1 has well-defined processes and big budgets, and H3 is packed with hype and business experts, the so-called “vacuum of H2” has become apparent over time (Moore 2007). There is often a lack of focus on H2 opportunities in favor of H1/H3 opportunities due to slower pace and use of more adaptive technology vs. larger scale innovation further exacerbated with managerial inattention.

Horizon 2

This whitepaper describes the results of the IRI Ideation to Horizon 2 Opportunity Portfolio (iH2OPe) Project, which explored leaders’ assessment of the practices companies use to effectively manage H2 opportunities and facilitate decision-making satisfaction and presents a suggested framework that can be adapted to use within companies. This research is best suited for practitioners who are challenged to successfully develop H2 opportunities and transition them to viable products. This study is an extension of previous work published in *Research-Technology Management* in 2020, which found that although R&D staff received sufficient resources to carry out research, they were less than satisfied with the decision-making process (Young et al. 2020).

The iH2OPe project focused on Horizon 2 (Figure 1). For this qualitative study, we recruited participants from IRI member companies. Thirteen decision makers (senior portfolio managers, vice presidents, and senior directors) from 12 companies participated in the study. Participants worked in software services, chemical manufacturing, consumer goods, packaging, and aeronautics.

Figure 1 summarizes the three horizon phases and illustrates how a company assesses key metrics around focus, investment, and potential outcomes as opportunities and projects are mapped out during planning sessions.

Component \ Horizon	3	2 (iH²OPe)	1
ROI Timeframe	Long	Mid	Short
Business Scope	Future	Growth	Core
TRL/MRL(±)	1 – 3	4 – 6	7 – 9/10
Activity	Identify new market	Demonstrate opportunity	Fabricate product
Deliverable	Market concept corroborated	Prototype exhibited	Manufacturability demonstrated
Focus	Turning out innovations	Top-line growth	Bottom-line accountability
Role	Inventor	Intrapreneur/ Business developer	Implementor/ Fabricator
Mindset	Goals	Strategic	Tactical
Investment	$	$$	$$$$

Figure 1 - The Three Horizon overview and iHOPe Project Focus

Opportunity Governance Framework

The Opportunity Governance Framework (OGF) provides a structure or framework for the governance of opportunities within H2. It organizes and allocates prospects based on consideration of scope, timescale, and availability of resources and personnel with the goal to improve decision-making satisfaction. Specifically, opportunities should be judged by a governing body to be in- or outside the core, in alignment with corporate strategy, and for their potential to foster cross-divisional development. Pruning, or terminating, less attractive options results in a more focused organization. Making use of spin-outs—that is, opportunities that have been explored or partially developed but no longer align with changing technology or market demand—alleviates inefficient demands on resources and management.

The OGF is a situationally dependent choice architecture focused on the “job to be done” (Christensen et al. 2003; Houlihan 2020). The OGF evolves constantly: it addresses H2 opportunity challenges and responds to shifts in strategic intent owing to changes in technology, customers, and markets.

“When leadership forms a separate governance structure that looks at the opportunities . . . this provides a framework for decisions that are harder to make at a business unit level and allows for disciplined business opportunity experimentation.”

IRI member company vice president of enterprise technologies

Part of the OGF operation is to solicit new opportunities. H2 activities are not projects, but rather opportunities to be explored. Not only favorable innovations but also situations and circumstances become opportunities. Opportunities originate from all horizons and from unexpected sources such as employees, suppliers, affiliates, and customers. Several participants interviewed cited scenario planning as enormously useful in filling the opportunity pipeline (Erdmann et al. 2015). Another approach is to establish a point of view (POV) of the future and organize innovation activities around it (Euchner, 2020).

Opportunities must be assessed via collaboration between key leaders and subject matter experts. This provides a full and accurate understanding of the opportunity and alignment with strategic intent (Whitehurst, 2016; Knapp, 2019). Once a decision is reached, owing to the collaboration, these same informed individuals can then be looped into the opportunity development process going forward. An innovation portfolio manager from an IRI member company explained, “our innovation taskforce reviews H2 projects on a regular basis. Given the greater uncertainty/risk in H2, these checkpoints bring transparency and expert discussions on key credentials such as opportunity size, customer value, and technical feasibility. This process drives synchronized, content-based decisions (Go/Kill/Hold) ensuring our experts are focused on the opportunities that will make the biggest impact.”

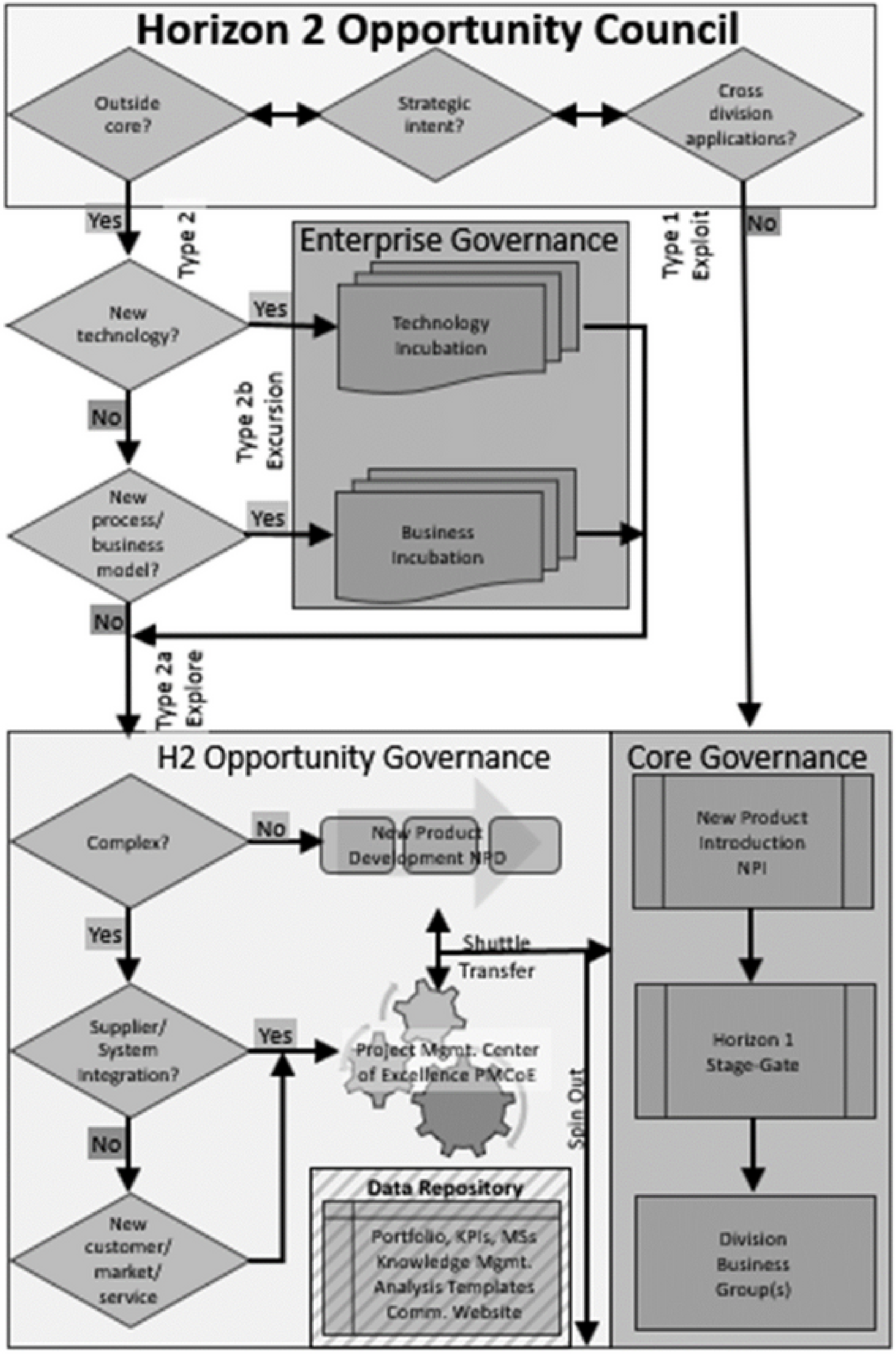

Figure 2 - Fully evolved H2 Opportunity Governance Framework

The following case study illustrates the OGF at work and the ways it can be adapted to individual company needs.

Case study: Global Manufacturing Company with Considerable H2 Success

Success in H2 for this global manufacturing company was based on a situationally dependent choice architecture, termed an opportunity governance framework (OGF), and a one-page Concept Card used by the OGF council to capture relevant data, peer input and opportunity developmental KPIs. Information was used to clearly identify unknowns, risks, assumptions, and alignment with corporate strategic intent to effectively evaluate opportunities. Identified were four emerging opportunities, ranging from sales and marketing requests and existing product technology updates to exploiting a recently acquired comprehensive process to generate a feature offering for a new product targeted to grow market share.

The OGF council classified these opportunities as:

- **Type 1 (exploit)** – an in-market product requiring a low-cost refurbishment reflecting evolving customer demand, using existing technology and processes, quickly returned to H1 for production.
- **Type 2a (“explore”)** - higher risk with potentially higher payoff, but requiring more resources—the first as an NPD effort, the second requiring an extensive PMCE undertaking.
- **Type 2b (“excursion”)** – a venture of high-risk with a demonstrated proof-of-concept (TRL 3), but lacked research on technology availability and manufacturability, potentially requiring enterprise resources, and an incubation period apart from divisional technology and/or the business environment.

Company learnings:

- ***Collaborate.*** Higher risk opportunities, such as Type 2a, required a matrix reporting structure to encourage collaboration among departments and engage colleagues with complementary expertise outside departmental silos.
- ***Establish quick learning opportunities.*** Numerous small-scale experiments using the Concept Card and guided by comments (and some red flags) along with forward-looking metrics, such as potential value and developmental progress, were used to quickly substantiate assumptions and increase validated learning.
- ***Know your KPIs.*** KPIs validated experiments, developmental targets, and served as innovation accounting that aligned with opportunity development. Successful transitioning required a transfer between the H2 prototype developmental stage inputs and the H1 commercialization outputs.
- ***Be ready to incubate.*** Riskier opportunities, specifically 2b (excursion), required enterprise resources and an incubation period apart from divisional technology and/or the business environment. A senior manager assigned to the venture ensured the opportunity reached a demonstrated maturity of TRL/MRL 4, after which he returned to his role with valuable tacit knowledge.
- ***Always be on the lookout for opportunities.*** Viable opportunities spring from anywhere: internally, from suppliers or customers, as a response to shifts in consumer tastes, incremental technology enhancements or production processes, or even as realizations that access to new markets may be through small but salient reworkings of existing products.
- ***Read between the lines.*** Depending on the opportunity, the nuances of risk, maturity, and viability must be considered.

Governing H2 Opportunity Types

In our research, we saw that the very best companies designed their own governance structures to orchestrate and mature H2 opportunities. Interviewees from these companies detailed differentiated process flows to handle differing H2 types, essentially designing or choosing to architect their own proprietary management for these opportunities. As opportunities mature, there often is a transfer of knowledge, occasionally by shuttling key employees along the process thereby bringing tacit knowledge with them. Additionally, these companies realize some opportunities are less valuable or pertinent to the ongoing business and need to be spun out to outside interests, allowing the organization to focus on key prospects.

H2 opportunities are not monolithic (Euchner, 2020). Several interviewees reported that they encountered at least 2 different types of opportunities and each needed separate governance. (Figure 3) These can be referred to as “exploit” and “explore,” or Type 1 and Type 2, respectively. They differ according to timelines, culture, leadership, investment, and risk (market, technology, team) (Simoudis, 2017). Type 1 (‘exploit’) opportunities without cross-divisional constraints can be acted upon in the near-term business cycle with production maturation and a re-aligned business model and moved to New Product Introduction (NPI).

Type 2 opportunities involve additional management and resources. The business opportunity is not immediately apparent, requiring more in-depth assessment based on their complexity, cross-divisional requirements, and ability to integrate with existing suppliers. Within Type 2 opportunities we delineated two subcategories. These subcategories we identified as Type 2a and 2b. Type 2a (‘explore’) focuses on opportunities for new customers/markets or providing new service and is best managed by the New Product Development (NPD), or for more involved cross-divisional applications, Project Management Center of Excellence (PMCoE) processes. Based on our interviews, we put forward a new category, Type 2b (‘excursion’), which introduces technologies or systems that require a new business model. These 2b opportunities should be isolated from the accustomed divisional business environment and separately incubated as they develop and mature.

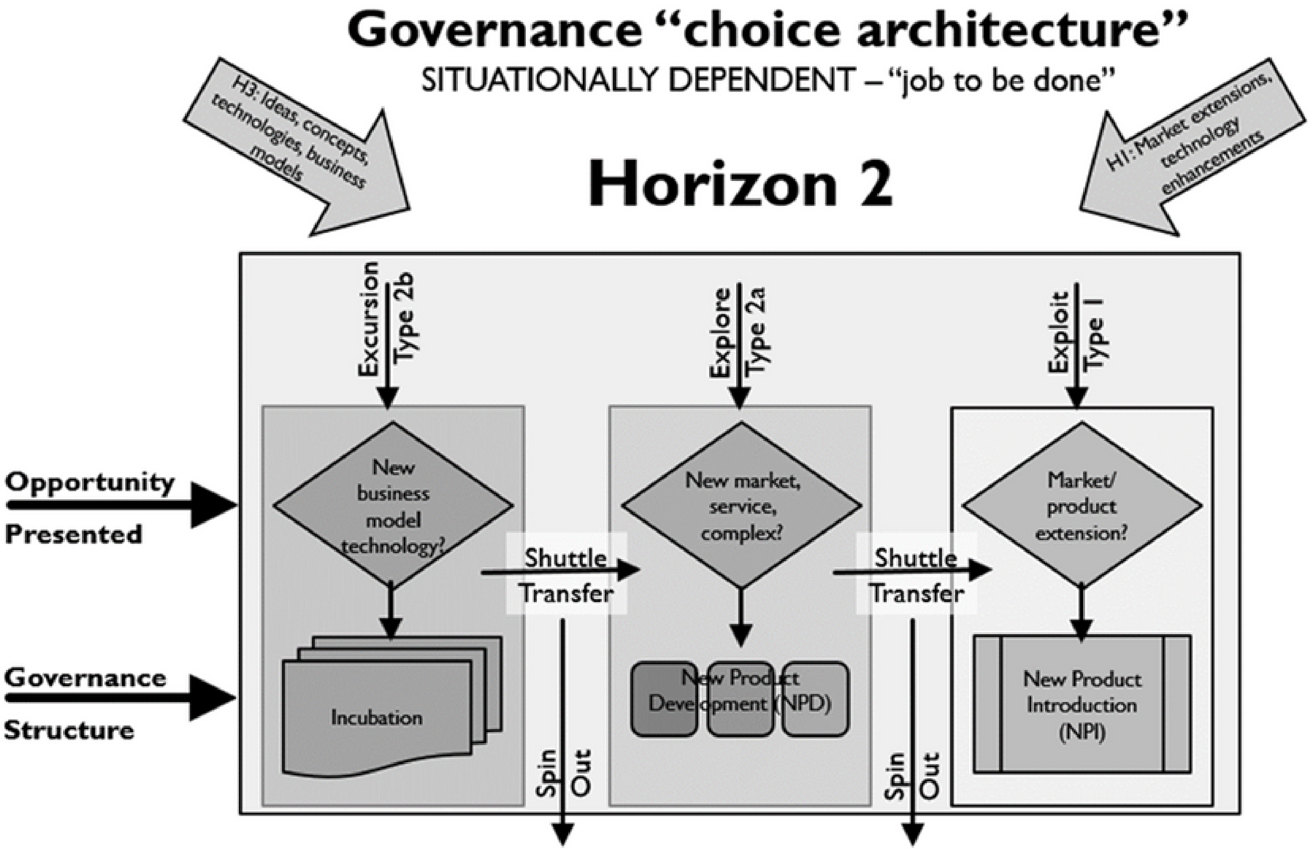

Figure 3 - Opportunity governance for various types of opportunities

Concept Card

Nearly ubiquitous among interviewees was the use of a concept card ("one-pager" or Opportunity Canvas) template to consolidate H2 information and then track headway and assumption/risk validation all in one place (Stategyzer, 2020). As one organization experienced, the concept card creates efficiencies in H2 development processes because it automates the capture and traceability of accompanying KPI metrics, updates, learnings, and milestones (Thiry 2008; Ries, 2009). A corporate repository can serve both as storage to track data extracted from the developing opportunity, but also to deliver prepared tracking templates. A key objective is to select and apply, according to the opportunity, the right metrics to be tracked on the concept card. Ohr (2015) suggests that success is defined differently in each horizon and the metrics should be adapted accordingly.

“The transition of innovation can be defined as a transfer function with an input-output relationship. The inputs are where all the learning occurs during opportunity evaluation, and the outputs are how the learning is carried to business execution. What’s intriguing is how often innovation management falls short in developing a transfer function that ensures the key learnings (capabilities) are part of the business execution team.”

IRI member company vice president of enterprise technologies

Opportunity transitions are one of the most difficult challenges requiring organizations and individuals to take on new risks while shifting development culture from experimentation to delivery (Carbone, 2012). The smooth transfer of developing opportunities to downstream operations is facilitated by shuttling learnings, and sometimes personnel and resources, to provide development continuity. Teams can adapt to and adopt transitions in small informal and informational increments (McKinsey, 2019).

Managerial Implications

There are six key focus areas for practitioners as they look to improve their approach to H2: 1) align H2 processes; 2) deliver more satisfactory decisions; 3) focus on effective transitions; 4) engage cross-functional teams; 5) support an opportunity development culture and train employees; and 6) insist on continuous improvement.

Align Horizon 2 Processes

Success comes from recognizing that different opportunities require different management practices. Segmenting new product development projects into categories by maturity, for example, provides this managerial perspective. H2 opportunities are unique and demand a more intrapreneurial mindset and management style that is premised on continuous experimentation and adjustments. H2 opportunities are not monolithic; they have differing time, resource, and risk attributes.

Deliver More Satisfactory Decisions

Companies can improve decision-making satisfaction by applying an analytical approach and having managers carefully review various opportunities (Kahneman et al. 2021). Effective discussions can be encouraged by using a structured process such as with a prepared template like a concept card or opportunity canvas. The key assumptions and forward-looking metrics of the decision-making template of choice will serve as a blueprint for validation experiments and developmental targets (Ries, 2019).

Focus on Effective Transitions

The best-performing organizations orchestrate and manage transitions between horizons by requiring new participants, re-prioritizing projects, and adjusting resources. These organizations use an organizational structure that provides clear maturity criteria and guidance to facilitate transitions. Each horizon stage requires a different style of management and inherently a different set of managers. We found that several companies strategically shuttle designated employees between stages, which provides continuity and tacit knowledge transfer. One interviewee encouraged downstream business units to engage and sponsor upstream promising opportunities furnishing future development touchpoints.

Engage Cross-functional Teams

Though most executives recognize the importance of breaking down silos to help people collaborate across boundaries, it can be a struggle to make it happen. The companies in our study valued the importance of interfacing between functions, departments, and/or business units, perhaps through matrixed reporting or similar managerial structures. Our research revealed that cross-functional teams are typically used to generate new knowledge or to overcome barriers between departments and disciplines. For cross-functional teams to perform well, they need clear goals, direction, and accountability along with senior executive ownership, performance metrics, and a robust process for knowledge transfer.

Support an Opportunity Development Culture and Train Employees

The interviewees that participated in this study noted that developing the right culture entails promoting employee acceptance of opportunity development as a fundamental organizational value. The study participants indicated that their companies value the idea that opportunities can come from anyone and anywhere within or outside the organization, not just from the top down. Successful opportunity development is a collaboration across business units and departments and is based on trust, transparency, inclusiveness, and communication. Managers must be open and willing to take risks, requiring a mindset comfortable with ambiguity and change as well as the capability to effectively navigate the unknown.

Insist on Continuous Improvement

Continuous improvement is imperative for any organization that wants to stay competitive. Interviewees cited the use of Kaizen, Six Sigma, SCRUM, SAFe, and other Lean, Agile and continuous improvement techniques. Continuous improvement also requires leadership commitment to the process. Success comes from innovating what developers do (big and small) and engaging them in sharing knowledge and generating improvement ideas (Dewar et al. 2019).

Conclusions

H2 is about recognizing when favorable innovations, situations, or circumstances become opportunities and engaging a development infrastructure to turn them into viable prototypes. Many leaders find the complexity of managing opportunities in H2 challenging. Employing a robust governance framework can help companies implement the right resources, processes, practices, and tools to move H2 opportunities to H1 more effectively. Leaders must recognize that achieving success in H2 requires a commitment to building an organizational culture that embraces failure, promotes decision satisfaction, facilitates effective transitions, and encourages cross-functional collaboration.

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