

The Breakthrough Incubator - how to create and rapidly launch new step-out businesses

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The search for growth is usually near the top of the CEO agenda. This can be challenging when core business growth prospects are limited, or when disruptions or convergence mean that growth requires the company to move into new or unfamiliar areas. Large-scale acquisition may be prohibitively expensive. Breakthrough innovation – creating new step-out

businesses offering new products and services – is seen by many CEOs as a more attractive way to overcome the growth gap.

Consequently, many companies today have internal units or programs to drive breakthrough innovation. Some success is undoubtedly being achieved, but all too often the results fail to live up to the original ambition in terms of creating sustainable new businesses of scale. Usually this is not due to lack of good ideas, concepts or even prototypes, but

rather because it remains difficult for companies to truly embrace the idea of investing in unfamiliar, non-core business opportunities which involve significant commercial risk and require new competencies.

However, as experience with “hyper-collaboration”¹ models grows, companies are finding new ways to overcome the challenges through working differently with partners. In this article we explore one of the most promising breakthrough growth models we at Arthur D. Little have successfully applied in both B2C and B2B businesses. This model delivers major benefits in terms of speed, cost and likelihood of success. It involves radical collaboration across the innovation ecosystem, and covers the entire innovation process from idea to commercialization, including strategic, commercial and operational, as well as technical, aspects. We call this the “Breakthrough Incubator” model.

Despite businesses focusing their efforts on improving breakthrough innovation performance, many still fail to create sustainable new businesses of scale. The Breakthrough Incubator model, a new approach built on radical collaboration across the innovation ecosystem, covering the entire process from idea to commercialization, is already demonstrating that it can overcome the challenges that hold back performance.



1. Ref “Ecosystem Innovation – The growth of hyper-collaboration in a fast-moving world” Prism S1 2017 <http://www.adlittle.com/en/insights/prism/ecosystem-innovation>

The real challenges of breakthrough innovation

Breakthrough innovation, by which we mean developing and launching radically new products, services or businesses that deliver significant value, is the holy grail of innovation management. Today it is an essential part of any large company's innovation effort, complementing incremental and shorter-term approaches which usually focus on the core business.

Achieving growth through systematic, repeated breakthrough innovation often poses a challenge to large companies because it is inherently risky and frequently requires competences and approaches which are not part of the mainstream of the organization. In many large companies, internal bureaucracy and red tape tend to stifle the required creativity, and internal R&D teams may struggle to think sufficiently "outside the box". Creating a stand-alone, semi-independent breakthrough team focused on step-out/adjacent opportunities or grand challenges is a common first step that companies take to address these barriers. Increasingly, companies are also looking to start-ups to access emerging technologies, bring in fresh thinking, and introduce more innovative ways of working. This has led to a major increase in the application of start-up-incubator, accelerator and corporate-venturing schemes. "Intrapreneurship" approaches and competitions to encourage entrepreneurial activities within the company are also becoming more commonplace.

However, despite some successes, many companies are finding that these initiatives still fall short of expectations in terms of significant new-business creation. For example, in our own breakthrough innovation survey², more than 85 percent of companies were unsatisfied with their breakthrough innovation performances. In our work with clients on innovation strategy, we encounter some common reasons for this, many of which are connected with the fact that companies tend to place too much emphasis on the front end of the innovation cycle, and too little emphasis on the end-to-end business creation process. Common failings include:

2. Arthur D. Little Survey, "Systematizing Breakthrough Innovation", 2015

- **Limited scope of internal breakthrough innovation units:** These units usually focus on ideation, concept exploration and product development as far as the prototype stage. The prototype may be successful in itself, but all too often the next stage of scale-up, launch planning and commercialization falters when more thorough market/consumer testing is conducted, or when the practicalities of large-scale material sourcing and manufacturing are properly assessed.
- **Internal rejection of radical new products:** Many large companies have built-in “antibodies” that hinder or reject radical new innovations. They are seen as either immaterial (“won’t move the needle”) or threats to existing business (“cannibalization”). Truly radical innovations also require resources, management styles and funding mechanisms that are, at best, unfamiliar to many organizations. External start-ups have similar issues to deal with, but they, at least, are driven by entrepreneurs with mentalities and ambitions that are all but absent in most corporates. This makes it difficult to create the right environment for a great but radical idea to prosper.
- **Brand constraints on breakthrough innovation:** In most B2C and some B2B businesses, brand is king. Sometimes great new innovations are killed prematurely during development or scale-up because they don’t easily fit with the existing portfolio of brands. Brand constraints can limit the scope and novelty of innovations, and introduce an unwanted bias into assessment and evaluation of new concepts. Moreover, companies can be nervous about testing new products in the marketplace if their corporate identities are recognizable, because of the reputational risk and the possibility of competitors rushing “me-too” products into the market once they get wind of what’s happening.

- **Scale-up risks:** In many companies, concepts and prototypes stay on hold for years and are either never properly commercialized or finally killed off. This can be due to the investment required versus the residual risks of failure, or lack of a powerful champion to garner the required internal-stakeholder support. Stagnation is especially a problem when prototypes are “thrown over the wall” by technical functions to marketing, commercial and operations after the prototype stage. Even if there is cross-functional representation on new-product development governance committees, the barriers can still occur once the scale-up and operational requirements are assessed in more detail – and especially if there is no clear “home” for the prototype.

In our experience it is these practical downstream issues, rather than any lack of creativity, good ideas or technical ingenuity, that tend to be the real barriers to effective breakthrough innovation.

How the Breakthrough Incubator model can help

What can companies do to overcome these practical barriers? One solution that some leading companies are now starting to explore is to revisit their whole approaches to “open innovation” and become much more radical in how they leverage the external ecosystem. Rather than simply working with external partners to take part in what is fundamentally still an in-house innovation process, they are **creating “incubators” with single external partners, which manage networks of external collaborators**. These collectively cover the end-to-end product innovation process from ideation through to launch and commercialization, including strategic, commercial and operational planning, as well as technical development. This Breakthrough Incubator (BI) model enables accelerated creation of a new business proposition with new products/ services externally before transitioning it back into the parent organization, thereby overcoming many of the prototype scale-up barriers. In essence, this is the “build, operate, transfer” philosophy applied specifically to

innovation and product development. A typical example of how the BI model works is shown in Figure 1 below:

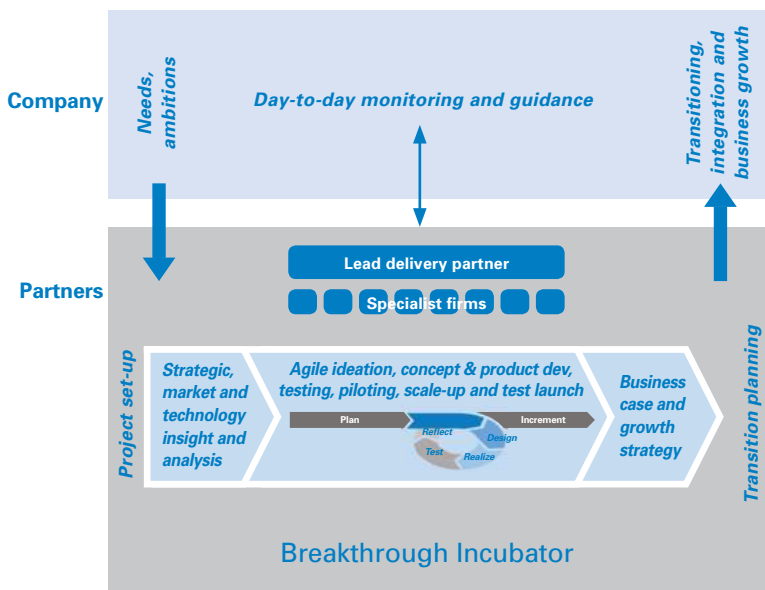


Figure 1 Example of a Breakthrough Incubator model for a consumer goods business

In this model, the **BI lead delivery partner conducts every part of new-business creation**, with the owning company heavily involved only in the initial scoping stage and final transitioning and integration. In between, there is only a small company focal-point guidance team involved in close, regular interactions with the partner. (See also the case example in Box 1.)

A typical BI program commences with an **ambition from the company’s top team to create a new business** based on innovative products or services in an area which is non-core to the existing business. Rather than conducting the program in-house, the company engages a suitably qualified BI lead delivery partner (“BI partner”) firm to take on the entire innovation process. The BI partner acts as an **“orchestrator”**, harnessing resources from within the BI organization itself, as well as an extensive ecosystem of specialist partners. The BI partner takes full, single-point accountability for successful delivery as the prime for the program.

Once the basic scope and aims are defined and agreed, the BI partner commences the program with an initial strategic review aimed at establishing and confirming the feasibility of the proposition, and the “art of the possible” in terms of an achievable ambition. Initial steps also usually include market/ customer/consumer insight (“pull”) and technology analysis (“push”). The product/service development process then proceeds using an agile approach, **including ideation, concept/platform development, product development and customer/consumer testing**. Once there is a shortlist of new target products, **supply chain sourcing and manufacturing/operational analyses** are conducted (**i.e., how can it be made at scale?**) and an initial **business case** is developed, leading to a growth strategy which sets out the path to grow a sustainable business in a three- to 10-year time frame. Simultaneously, work is commenced on, for example, **brand/offer strategy** and **channel analysis**. A key feature of the model is that the BI partner takes the project **through to commercialization**, including test launching of actual products and services – not stopping at the prototype or bench-scale phase.

The work is conducted by the BI partner, using its own resources and engaging specialists, where required, from the ecosystems of both the company itself and the BI partner firm. During this time, the **owning company stays close to the ongoing process on a day-to-day basis**, with a small (e.g., two- to three-person) guidance team liaising frequently with the BI partner. Weekly meetings and co-attendance at key meetings ensure that the company remains fully informed of the process’s status and key issues throughout. Overall progress, key decision-making and strategy are covered by a senior joint steering committee, which comprises executives from both the company and the BI partner.

A key aspect of the model is the use of **agile approaches** in the development process, with a strong focus on early customer/consumer testing, and iteration with short cycles, including immediate assessment of commercial and strategic implications in parallel with product development and testing. This agile approach ensures that

the development is strongly market-/customer-/consumer-focused and the practical and scale-up aspects are properly assessed at an early stage – rather than after prototyping.³

The BI model goes well beyond “classical” open innovation because it externalizes an entire innovation, product development and new-business creation effort. Some companies may feel reluctant to externalize so much of what might seem critical for competitive advantage. And so they should be: if it is core to your strategy and you are good at it, keep it in-house. But as we argued above, many companies are *not* good at creating growth through internal breakthrough innovation efforts. In such cases, the opportunity costs or risks associated with extensive collaboration, or even full outsourcing, are actually very small compared to those of the in-house alternative. We have found that external “incubators” are an ideal way to build up the right organizational environment in order to systematize future breakthroughs by starting with smaller pilots or projects which have previously been “mothballed” and could be reinvigorated. (See Box 2 for an example.)

Box 1 – Breakthrough end-to-end product innovation for a large food and drink company

A leading food and beverage company set out to target new segments of the consumer population by developing innovative products tailored to their specific needs. It wanted the initiative to be consumer-needs led, scientifically and quantitatively driven, and independent of its existing portfolio of businesses and brands. While the initiative aimed at developing and launching new products and platforms, it was also focused on learning and bringing the organization up to speed on the targeted segments, as they were deemed important future growth drivers. With the help of Arthur D. Little, the company created an “incubator” outside of its own organization with the charter to ideate, create, develop, test, and launch new products that fulfilled the strategic objectives.

3. See “Using agile approaches for breakthrough product innovation” for further insight, Arthur D. Little Prism S1 2017, <http://www.adlittle.com/en/insights/prism/using-agile-approaches-breakthrough-product-innovation>

As the project orchestrator, ADL created and implemented an agile approach using an ecosystem of collaborators that met the needs of every step of the project. ADL also coordinated with the client team on a regular basis to ensure input and buy-in to critical decisions and milestones. While only a fraction of the concepts developed as parts of this project ended up being launched (see Figure 2 below), an important benefit to the client was the creation of a portfolio of concepts/products and future brands that could be introduced to the market as parts of subsequent launches. The insight and learnings about the segments' emotional and functional needs will also form the basis for the development of strategic platforms around which the client will transform the business to focus on key growth segments of the future.

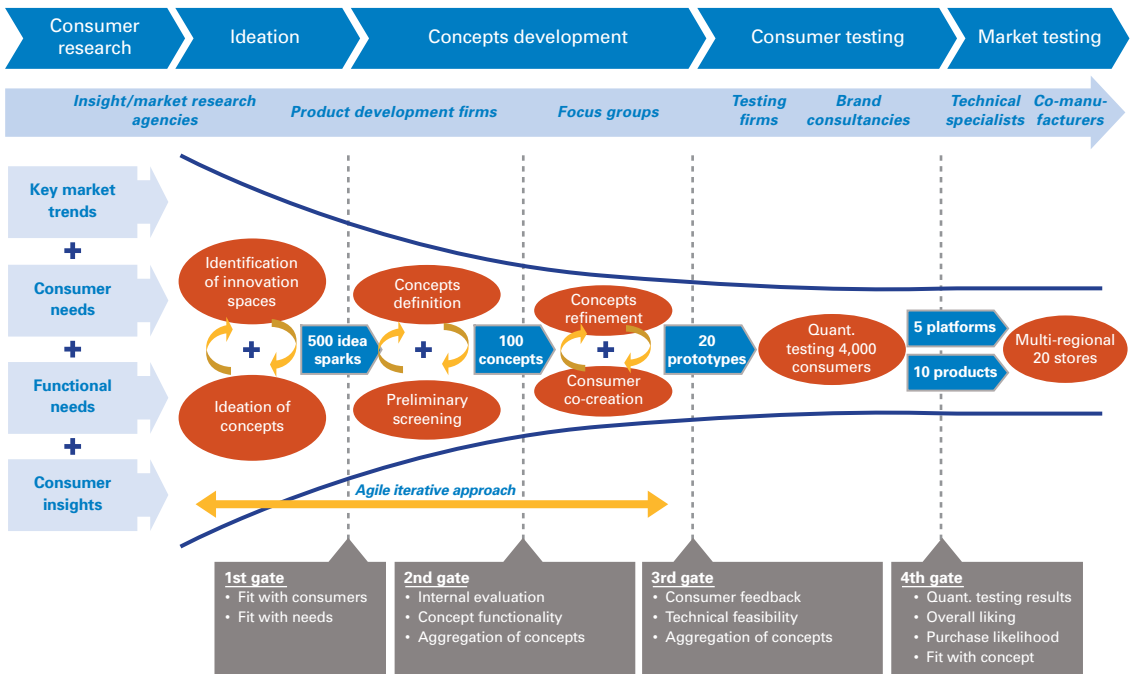


Figure 2: While only a fraction of the concepts developed as parts of the project ended up being launched, an important benefit to the client was the creation of a portfolio of concepts/products and future brands that could be introduced to the market as parts of subsequent launches

The benefits of breakthrough incubation

The BI model provides an excellent means of overcoming the challenges of innovation-driven growth, for example:

- **Rapid low-cost growth (bold):** The BI model offers rapid new-business creation at a fraction of the cost of a large-scale acquisition, and substantially faster and cheaper than internal development.
- **Speed and agility:** The BI model offers an opportunity to accelerate speed to market for breakthrough innovations. The agile approach adopted during product development means typical delays caused by formal phase-gate approvals are eliminated. Also, the BI partner is usually able to engage other external partners much faster than typical large companies can due to the absence of procurement red-tape, thereby overcoming one of the big challenges companies face in making open innovation work effectively. Reductions in time to market of 20–30 percent or more are achievable.
- **Removal of corporate bias and/or rejection:** Because the entire development-and-testing process takes place externally, normally in a “brand-agnostic” manner, typical problems such as inherent bias or rejection of new concepts/prototypes due to lack of perceived fit with the current business are greatly reduced. By the time the new business is transitioned back into the company or launched as a stand-alone entity, it has already been proven through market/consumer/customer testing, test launches, operational assessment, commercial viability and strategic underpinning.
- **Resource efficiency:** One of the problems with step-out or non-core innovation is that new competencies are needed which don’t already exist within the company. Moreover, any new-business creation normally requires significant resource support from a range of technical, commercial, operational and strategic functions. The BI model postpones the

need for a company to take on permanent in-house resources until – or unless – the proposition is proven and the requirements are clear. The company, meanwhile, can focus on its core business without distraction. Resource efficiency is also greater within the BI partner than it would be within a large company. All this means development costs can be significantly lowered – we estimate a potential reduction of 15–30 percent. Moreover, the greater procurement flexibility of the BI partner means the best-possible external expert resources can be easily secured for the work.

- **Mitigation of risk:** The relatively high-risk profile of a new business in a non-core area is one of the main barriers to breakthrough innovation. The BI model mitigates the risk by keeping the project external – and brand anonymous – until it is largely proven, not just at prototype scale but also at full scale.
- **Bridge across functional divides:** In the model, the BI partner covers all the various functional aspects of the new business – technical, commercial, operational and strategic. As it is more flexible than a large corporation, the BI partner can take a fully integrated, cross-functional approach much more easily, which enables more agility and speed, as well as better coverage of all the aspects that are critical for a successful new-business launch.
- **Expertise synergies:** The BI partner will typically bring a range of external expertise that is partly additional to, and partly overlapping with, the company’s internal expertise. The integration of this expertise between the BI partner and the company brings synergies which can advance the company’s know-how and capabilities in areas such as marketing, consumer insight, product/platform development methods and technical competencies.

Box 2 – Establishing an agile “innovation incubator” approach for piloting new-product innovation for a global steel company

A large steel company had found that while it had very competitive products, facilities and capabilities, it invariably struggled to put these to use in breakthrough innovations. The technology and R&D people were unable to gather and use detailed market insight, while commercial teams were focused on existing products. The result was that breakthrough projects simply dragged on and became (or seemed to become) irrelevant and nonviable. The company had therefore decided that it needed to establish an incubator for future breakthrough innovations, but was unsure how to do this.

With the help of ADL, it identified and selected suitable pilot incubator projects that could be run partly or even fully outside the company, and thereby allow the company to “learn by doing”. These pilot projects were selected based on: their scope (adjacent to the company’s core, for instance, in terms of advanced steel-surface treatment or in combination with digital solutions); their incubation and market potential (would the projects truly benefit from an agile co-venturing approach, and would they then be expected to make a big splash in the market?); and their learning potential (would eventual success also enable the company to better understand how to systematize this in setting up the incubator unit?). This discovery stage was followed by a highly iterative incubator stage to rapidly downscale market, technology, organizational and resource uncertainties, and to populate the blueprint of the incubator. This two-pronged approach ensured early proof of principle to the organization, as well as a truly fit-for-purpose, “zero-based” organizational design to replicate this success systematically in the future.

Key success factors for implementing the Breakthrough Incubator model

In order to achieve these benefits, it is important to ensure that the BI approach is appropriately implemented. We have identified five key success factors for this, as shown in Figure 3 below.

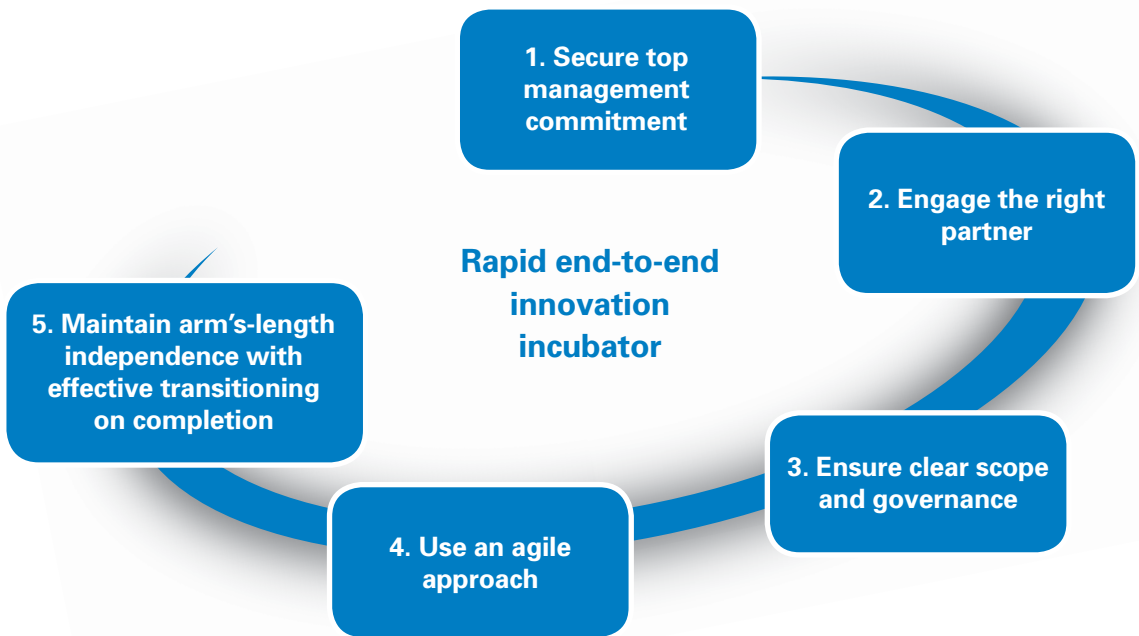


Figure 3 Key success factors for the Breakthrough Incubator model

1 Secure top management commitment

First of all, the BI model will not work unless it is actively sponsored by the top management of the company. An end-to-end innovation program cuts across many different functions, not just R&D. There are inevitably many vested interests and perceived threats across these functions: not only internal technical resources who may view the BI model as a possible threat, but also other people in functions and disciplines such as marketing, supply chain, manufacturing, and strategic planning, who may be initially suspicious or skeptical. Top management leverage and authority are necessary to push the model through without undue interference from internal stakeholders.

2 Engage the right partner

The role of the BI partner is central to the success of the model. The BI partner acts as an overall “orchestrator” for the program, using both its own resources and those of the ecosystem, as shown in the example in Figure 4.

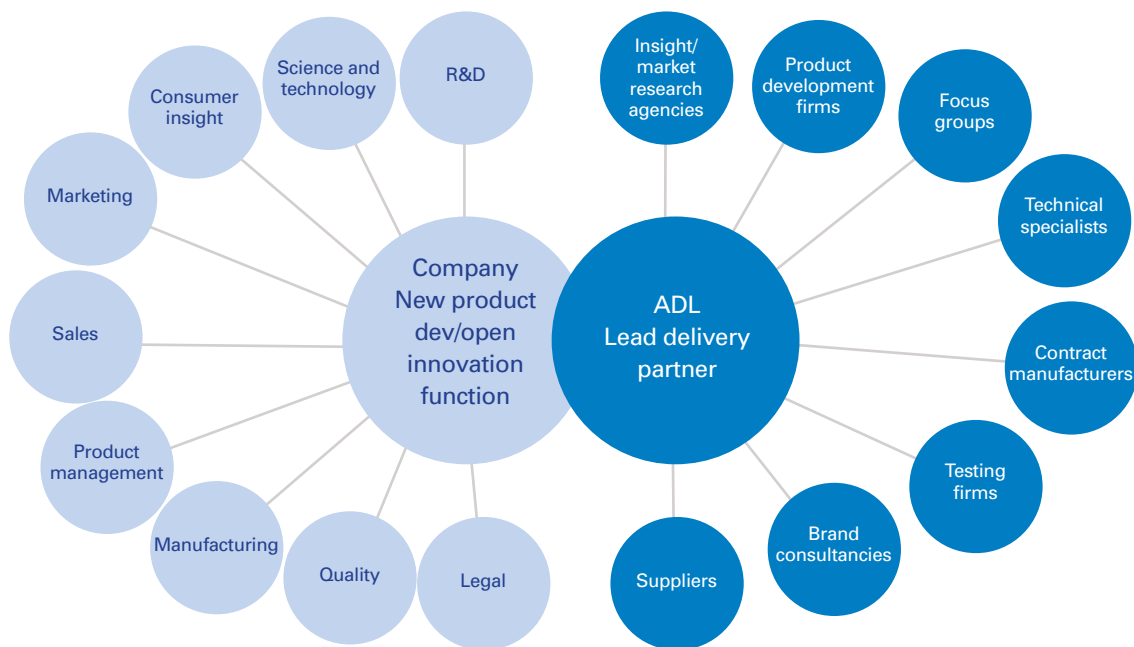


Figure 4 **Typical Breakthrough Incubator partner network**

The company needs to ensure that there is a **single-focal-point guidance team** during execution, typically within the new-product development or open innovation function, which is able to orchestrate the involvement of other company functions.

The BI partner firm needs to have **relevant in-depth expertise in-house**. This means having experienced staff with first-hand experience in new product/service development in the appropriate industry. Together, they should bring a mix of detailed technical skills (e.g., in appropriate technologies), operational skills (e.g., in relevant manufacturing, sourcing and/or supply chain operations), commercial and marketing skills (e.g., in pricing, brand strategy and channel strategy), and strategic business skills

(e.g., in growth strategy). It is essential that the BI partner is involved as a **“player” as well as an “orchestrator”**, working closely with other specialist partners at a detailed level. Without this, the BI partner role is reduced to one of an administrator or project manager, and this provides an insufficient level of control for a complex innovation program. This **multi-disciplinary capability** is vital for the BI partner – for example, a purely technical firm (such as a contract design and development consultancy) may not be appropriate for the role, and neither would a purely strategic or brand/marketing consultancy.

The other **specialist partners from the ecosystem should be the best available** given the scope and nature of the work. Typically, some will be firms that already work regularly for the client company and are known and trusted by them, while others will be firms that have strong existing associations with the BI partner firm. Contracting should use good procurement practices, with competitive bids where appropriate. It may be relevant to have more than one partner organization in the same field working in parallel, such as in new-concept development, as this can greatly enhance the richness and breadth of the outcome.

3 Ensure clear scope and governance

Like with any significant project, it is important to agree the scope, ambition, tasks, deliverables and milestones very clearly and with sufficient detail at the outset. Usually there will still be a significant degree of uncertainty at this stage; hence, it is advisable to split execution into discrete phases with separate budgets. Establishing a suitable steering and governance process is also important. This should include a **joint steering committee** with senior executives from both the company and the BI partner, and a **program-level team** comprising the BI partner firm’s program leader and the company’s day-to-day focal point.

4 Use an agile approach

As mentioned above, the BI model delivers benefits especially through speed and agility. The development process needs to be based on deep, comprehensive

technology and market/customer insight. Subsequent steps from concept development onwards need to be conducted iteratively, with **early prototyping and rapid quantitative and qualitative testing** in the marketplace. One of the benefits of the BI model is that it enables this agile, multi-functional development approach, which would be hard to implement within a large global organization. Effectively, this is similar to treating the program as a new-business venture with seamless integration across strategic, technical, commercial and operational functions.

5 Maintain arm's-length independence with effective transitioning on completion

One of the main benefits of the BI model for breakthrough innovation is its freedom to run without corporate interference. It follows that a key success factor is to maintain adequate independence with contacts only via the nominated focal-point guidance team and the joint steering committee, as mentioned above. In some cases it may even be necessary to keep the program confidential within the company itself until it has reached sufficient maturity, in order to prevent corporate interference. This also helps to maintain external confidentiality.

A consequence of this independence during execution is that it is extremely important to have a **comprehensive transitioning process** to integrate and hand the program back to the company once it is completed. This transitioning process needs to include structured interactions with all key internal stakeholders involved, including elements such as one-to-one coaching, interactive workshops, co-working and "helpline" support. Transitioning will typically need to take place over several months in order to provide the receiving organization within the company with adequate opportunity to assimilate and "own" the new business, as well as to benefit fully from the insight and lessons learned.

When is the Breakthrough Incubator model applicable?

The BI model generally has broad applicability across both the B2B and B2C sectors. However, certain situations are more suitable than others to benefit from the approach.

The BI approach is likely to be most suitable for:

- **Companies requiring rapid step-out growth:**
The approach is especially suitable for creating new products, services or businesses which are not core to the current business, and where the necessary in-house competencies do not exist. These could arise from (for example) convergence trends or new digital opportunities in non-digital industries. Examples could include a novel medical device which incorporates digital functionality to provide an integrated consumer health service, an original food and drink concept which targets new consumer segments, or a new component or piece of equipment which relies on non-core technology and opens up a fresh customer market.
- **Shorter-innovation-cycle industries and innovation areas:** The approach is more suitable for industries and innovation areas in which product development cycles are less than two or three years from conception to market, such as consumer goods, food and drink, specialty chemicals/materials, telecommunications, digital, service industries, healthcare technology, and light engineering/manufacturing/energy. It could also be suitable for longer-investment-cycle industries such as heavy engineering, provided that the step-out innovation areas being considered have short development cycles themselves.
- **Larger companies:** The incremental benefit of the BI model really shows when applied in a large-company context. Large companies often struggle with speed to market, agility and breakthrough innovation, but they also typically have more access than smaller competitors to required funding, experts, pilot

facilities and, for instance, lead customers. So the BI model can circumvent inherent weaknesses while still leveraging a company's major strengths and scale. That said, smaller companies may also benefit from the BI model if they are significantly resource constrained and need to develop and commercialize new businesses quickly.

Insight for the executive

The Breakthrough Incubator model is a highly effective new approach for achieving rapid growth through breakthrough innovation. The success of the model underlines some key insight into how companies should go about delivering rapid business growth.

- Identify your barriers and take action: Take an honest look at your approach to breakthrough innovation. Is it delivering the value you envisaged for the company and, if not, why not? Then take action to change your approach.
- Don't underestimate scale-up and commercialization challenges: Downstream scale-up and commercialization are often bigger challenges than upstream concept and prototype generation. Make sure your approach addresses these issues.
- Be agile: Don't use normal phase-gate approaches for breakthrough innovation. Work towards early prototypes and constantly test using quantitative as well as qualitative methods to progressively reduce risks and uncertainties.
- Be cross-functional: Use a development approach that focuses on truly integrating technical, operational, strategic and commercial input at an early stage, not just towards the end of the cycle. Why pursue great technological innovations if plausible business model options don't make sense?

- Consider externalizing: Just using external partners for specific tasks and keeping everything else in-house may not deliver the step-out growth you need. Be prepared to externalize the whole development project and incubate it before transitioning it back into the company.

The Breakthrough Incubator model is a highly effective solution for companies that are serious about transformation and building sustainable new businesses of scale. We believe it will be an increasingly common approach for leading innovators over the coming years.

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