

Innovation System from Ideation to Governance

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1 THE COMPLETE GUIDE TO BUSINESS INNOVATION, VOLUMES 1 TO 5

The past can no longer be a predictor. The forces reshaping global culture have become so sweeping and multifaceted that a company's past successes have lost their statistical weight in projections of what is most likely to happen next.

There have been only a few other historical precedents of times like the one we are in now, where the post-change world looks absolutely nothing like the world before.

The World's Four Industrial Revolutions

We are now living in the midst of the Fourth Industrial Revolution, fundamentally rewriting the rules of how we live, work, and relate to one another. Somewhere in the world right now, there is most probably a working prototype of an innovation that will be as profound as the internet or self-aware AI.

The World Economic Forum introduced this conceptual framework for global development in 2016, but the evidence has been right in front of us for a great deal longer.

The First Industrial Revolution in the 18th century transformed the world of work from animal-powered labor to mechanical drivers. The Second in the 19th century brought to bear electricity and previously unimagined economies of scale. The Third in the 20th century transferred industrial logistical control to computers and automation.

Now, in the 21st century, and in the midst of the Fourth industrial revolution, we are witnessing the convergence of all past advances in power and energy. Mechanical devices, electricity, and networked computers are merging with biological systems and are projected to outperforming the human brain within a decade or two. And even more thought provoking would be to ask ourselves, will there be a Fifth industrial revolution in the future? Most likely?

But honestly, no one has any idea where this will lead us.

So, for now, let's hope we manage to control and guide this development for the good as opposed to the bad/evil opportunities it inevitably will provide to our planet.

Finding a successful Path Ahead

In its scale, scope, and complexity, the Fourth industrial revolution is ushering in a world unlike anything we have experienced in the past. Like the world of quantum mechanics, common sense does not apply to uncommon environments. While we cannot know how this will unfold on the macro level, each organization can take control of its own destiny by defining its innovation strategy.

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In order for their organization to play a consequential role in the sweeping changes swirling all around it and to benefit from the opportunities they present, leaders must follow a praxis that is integrated, comprehensive, and involves all external and internal stakeholders.

If there are any omissions or vulnerabilities in the foundations of their business strategy, market forces will simply tear it apart. Successful leaders therefore adhere to methodologies that aligns strategy, leadership styles, internal culture, untapped capabilities, and adaptable competencies.

Control your destiny through a Comprehensive Innovation Strategy

Solid research indicates that a coordinated innovation strategy will be the key to success in building innovative, sustainable business models that thrive amid the turbulent times ahead. Organizations that aspire to persistent relevancy need a true, reliable, and easily measurable 360-degree understanding of what just happened, what is happening at the moment, and which potential futures are most likely to occur.

Entrepreneur and international innovation expert Magnus Penker built the Innovation360 Group to offer businesses a pathway for achieving that understanding. Penker's journey began with a deceptively simple question: "Why do some innovative firms change the world while others struggle to survive?" Based on analysis of data from thousands of businesses, Penker concluded that it is not a matter of luck, although timing does matter. And it's not just talent, a well-connected board, or intelligent funding choices.

Understand your innovation anatomy with InnoSurvey®

The answer can seem discouragingly elusive, but the underlying truth is that each organization contains its own individual seeds of success or failure. Repeatable success depends on leaders nurturing the right combination of elements with exquisite precision.

Penker and his team studied more than 1,000 companies across 62 countries to build the world's largest innovation database, the InnoSurvey®. This contains a compilation of insights from multiple respondents for each company, including both external and internal stakeholders, that yields a comprehensive 360-degree analysis of what, why, and how innovation projects came to fruition.

Over the years, the team has been able to refine and develop these specialized methods for anatomizing innovation. This approach provides an iterative, evidence-based assessment that serves as the road map for future investments.

The Overarching Goal of this book series

The goal for the five volumes of this book series is to help more great ideas find practical expression and help more companies survive despite market upheavals.

The five volumes cover:

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1. How to Assess and Measure Business Innovation
2. The Elements of Innovation
3. A Complete Innovation System from Ideation to Governance
4. Tactical Innovation Techniques in Practice
5. Sustainable Growth and Profits: Managing Your Innovation Strategy, Organization, and Initiatives

Even when the business environment is changing with blinding speed and large-scale cultural shifts are resetting the market's priorities in unpredictable ways, there's no reason to throw up your hands if you are a business leader. This book series is meant to be a firm grounding you can return to again and again. There are many precedents within the InnoSurvey to help you make sense of what's happening with each innovation you introduce.

What the world has in store for the years ahead is likely to be radically, shockingly new, but you can prepare yourself and your organization to soar above the whirlwind. This book series offers a repeatable, teachable process to innovate for sustainable growth. i.e. greater market shares, and profits—no matter how the world changes.

2 INTRODUCTION TO VOLUME 3: INNOVATION SYSTEM FROM IDEATION TO GOVERNANCE

Innovators are always saying that they want to make the world a better place, so why isn't it any better? The answer may shock you. The world actually is a better place now, according to a host of objective metrics.

The facts (1) are that:

- The number of people living in extreme poverty has fallen below 10% for the 1st time in history
- Global child mortality rates are now half of what they were in 1990
- Roughly 300,000 people gain access to electricity and its related health effects every day

In many ways, the world we are passing on to the next generation is in much better shape today than it has ever been, and that is not a piece of wishful thinking or an inspirational affirmation to start the day. My dear friend Hans Rosling spent the last years of his life making the case in public forums for a fact-based optimism, and that we tend to think things are worse than they are when we don't pay attention to data. Best of all, he proved his points with marvelously inventive data visualizations.

Of course, that is not to make light of the serious conditions still facing a great number of people in every region of the Earth. Suffering and inequalities abound. New threats to sustainability arise daily while old ones grow stubbornly resistant to formerly effective solutions. The last mile is the harshest in any race.

However, humanity still has one factor in our favor. Every one of us has full access to an infinitely varied and vastly underused resource: Innovation. We can think our way out of quite literally anything.

Consider the UN's goal of completely eliminating extreme poverty by 2030. That is not only possible but inevitable, as Rosling proved, as long as we maintain our current pace of innovation. World leaders met and easily exceeded the UN's prior goal of halving the number of people living in extreme poverty and hunger by 2015. It was accomplished by a combination of brilliant ideas and productive innovation systems in collaboration.

This collective vision of a more humane, sustainable future across the board is an idea whose time has come. It is echoed in the work of entrepreneurs and forward-facing organizations in every sector. Across many new ventures like *A World of Three Zeros* by Nobel Peace Prize winner Muhammad Yunus, innovators are laying out the practical steps that can help us achieve mileposts like zero poverty, zero unemployment, and zero net carbon emissions in our lifetimes. Innovators are pursuing upgrades to the human experience such as the equitable distribution of Food, Energy, Water, Security, Global Health, Education, Environment, and Access to Space.

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Innovative thinking alone will not be able to get there, though. Our research indicates that innovators enjoy much better probabilities for success when they work within the structure and support of an innovation system. These systems can deploy massive resources with precision, yet have the flexibility to keep innovations alive in hostile market environments defined by UPACS (Uncertainty, Paradoxes, Ambiguity, Complexity, and Speed).

In this volume, we will examine best practices, case studies, and our own original research on how to design, implement, and operate one or more innovation systems. The chapters ahead lead you all the way from initial ideation to implementation to compliance and governance.

We will outline which structures which will be required by your unique innovation footprint. That starts by working outward from a thorough assessment of your organization's aspiration and abilities, including an investigation of your company culture, leadership styles, and potential capabilities. We will make implicit how to build an effective innovation strategy based on your external market context and unique areas of excellence.

The end goal is an innovation system compatible with the emerging ISO standard and tested all over the world in real cases. Most importantly, your innovation system will be pre-tested on the market's global battlefield derived from on the insights from InnoSurvey and 1000+ organizations in 62 countries.

The Right Questions at the Right Time

It bears repeating here that coming up with great ideas is not a problem. In fact, there are an infinite amount of spectacular ideas to choose from, even if no one came up with any more after today. The problem is in assigning an intelligent priority to proposed innovations in a world of limited resources.

The most common mistake organizations make is by jumping right to questions like "What kind of new products do we need to produce?" or "What kind of business model makes sense based on changes in society?"

Those are the right questions but they are out of sequence. They are likely to lead you down a dark path to a dead end unless you are properly prepared to evaluate the answers in line with your strengths and strategy.

In our study of successful innovators, we found that before they get to "What?" they start with "Why?"

Why is your organization in search of innovative solution? Will you need to maximize profitability or grow your market share first?

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Innovators following the Need Seeker strategy will be most interested in narrowing the spotlight on customers, partners, and clients to offer superior value to the market. In contrast, strategies based on Technology Drivers investigate problems, many of them unarticulated, and explore how the latest developments are reshaping various sectors.

Both paths are very different from the Market Reader strategy, where organizations evaluate the competitive landscape objectively, using analytics to predict trends and capitalize on opportunities before the window closes.

Starting with ‘why’ instead of ‘what’ sparks a radical perspective shift that helps align company leadership with the innovation framework. Even the most powerful innovations can flounder if they don’t have the full support of company leadership. In reality, they rarely survive to the launch, let alone make it through the blistering market adoption phase.

By the time an innovation reaches the ‘how’ stage, all the stakeholders have to be on board.

From ‘why’ to ‘what’ to ‘how’ is a summation of the Innovation360 framework. It is a functional methodology for generating more than just a single innovation or even a cluster of innovations. It is the first step in designing a robust innovation system for matching company goals with the types of innovations you will need to achieve them, while keeping an eye on the horizon.

This is the foundation for a sustainable culture of innovation in a volatile global economy.

Success by Design

From the tradition of medieval carpenters, we have taken the wisdom, “Measure seven times, cut once.” That has countless applications, but in this case it means that innovation projects vastly improve their chance at success when you start with absolute clarity on your inherent capabilities. Once an action is taken, it forecloses other possibilities. Every decision has implications that ripple across the project timeline, many of which can be predicted.

Assessment, measurement, and analysis are the necessary precursors to the design and implementation of a functional innovation system. The steps are relative simple in their layout, but can be intricately detailed in how they influence and interrelate to each other. It all begins with our 360° InnoSurvey™ analysis to map out an organization’s innovation footprint across 66 innovation capabilities within 16 aspects.

This book will walk you through a step-by-step process for implementing a tailored innovation system to propel you in the direction of your goals. As you start piecing together the essential elements of that system, it will become evident why a single homogeneous process cannot operate effectively in a heterogeneous organization.

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You will determine the order of operations to execute according to an interactive schedule. It must be adaptable enough to adjust as sub-projects move through their tasks at a variable pace. At each step, you will be able to make a record of how design principles impact outcomes for your next iteration of the innovation system.

Research by the Innovation360 team suggests 10 typical strategic goals that most often impel an organization might establish an innovation system (or systems):

1. Create a critical mass of skills and knowledge
2. Obtain new consumer/user insights
3. Adopt and adapt new technologies
4. Collaborate externally (external networks, partnerships, JVs)
5. Identify new business opportunities
6. Establish a footprint in new or emerging markets
7. Scale innovations faster
8. Build a test bed for rapid experimentation
9. Provide a showcase of new offerings
10. Create a base for future acquisitions.

Outlining your strategic goals is the first step when considering the possible design choices. From that point, design choices that must be settled within this strategic context. Those choices include:

- How to link back to the “parents/owners” growth strategy
- Selection of geographic locations
- Governance and reporting structures
- Details of parent involvement (formal and informal)
- Operating models
- Parent’s involvement in major decisions
- Talent management, such as talent identification, selection and incentives.

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This is where the relationship between the organization's innovation strategy and its profile of strengths and weaknesses comes into play. With our analysis of more than 1,000 companies in our InnoSurvey™ database, we have seen how insights into specific characteristics within a heterogeneous organization point the way to more effective design choices. We can map an organization's strength profile against specific configurations and test the viability of any set of design choices.

Design decisions should be based on an external and internal analysis as well as on the initial plans for removing blockages and amplifying the strategic direction of the organization. There are three basic modalities that guide the next phase: Best Fit, Best in Class, and a Resource-Based View.

In the Best Fit modality, decisions are based on optimizing the current setup without any major changes. Typically, these decisions are based on the existing strategy, leadership, goals for innovation, and developing the organization's current strengths. This aligns well with H2 innovation projects.

Sometimes, leaders find they need to look outside the organization to reach their aspirations and better frame their goals. In that case, the Best in Class modality highlights the pathways and missteps made by other organizations that are currently leading in the desired sector. Your team will come up with recommendations on where change is required at the level of strategy, leadership, type of innovation, personas (the culture), capabilities and competences. This takes a longer view, making it a good basis for H3 innovations.

As time-to-market shrinks and competition intensifies, however, the Resource-based View often becomes the necessary modality by default. In this path, speed matters most and design decisions must be made from an objective analysis of the company's current capabilities, personas and competences. Leaders need to know what is realistically possible now and what that implies about innovation strategy, innovation type and the style of leadership required. H1 innovations fit well within this rapid evaluation cycle.

This entire process and how it operates within a portfolio of core, growth, and future-oriented innovations is examined in granular detail in our fifth volume of this series - Sustainable Growth and Profits: Managing Your Innovation Strategy, Organization, and Initiatives.

KPIs for Righting the Course

In sailing into these uncharted waters, there will certainly be unexpected storms and other challenges along the way. Your innovation system will be instrumental in keeping projects on course with a series of strategic, tactical and operational KPIs.

Strategical Metrics cover top-level analysis of how well the innovation project is really moving the organization in the direction of its goals. Progress on these metrics should be reviewed every 6-12 months and they include questions like:

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- Which aspirations will help us in delivering on our strategic initiatives?
- Do we have the right abilities in house to deliver on our strategic initiatives?
- Is there an existing standard set by the Innovation Board or Executive Committee?

Tactical Metrics are those that deal with the performance of sub-routines for iterative enhancement along the way. Progress reports should come every 1 – 3 months. These include answers to queries like:

- Are we systematically working with our strategic initiatives in the short, middle, and long term?
- Do we have defined metrics to measure changes, derivations, and results?
- How do we set up yardsticks against additional performance expectations set by the Innovation Board or Executive Committee?

Operational Metrics are the ones most innovation teams will be more familiar with because they impact day-to-day operations. Reports should be circulated at least weekly or on an interactive real-time dashboard that can be referenced on-demand. These include:

- Does the project's organizational design maximize efficient communications?
- Are we optimally utilizing and deploying all of our resources?
- Which improvements could be suggested by the Innovation Task Force or Innovation Board?

Although you will establish basic KPIs early in the process to guide future development, it is common for this list to grow and evolve as the project closes in on completion.

Desire Defines Results

Progress toward the organization's aspiration is at the top of that list of KPIs for one very good reason: Our research shows that sometimes it is more dangerous to play it safe.

Over the years as we helped innovators be more successful and read scientific studies on factors related to disruptive change, we came to believe that the desire to radically innovate and the openness to change had a positive impact on the results organizations saw from their creative projects. We developed a hypothesis that the aspiration of an organization impacts success and must inform the design of their innovations. Our subsequent research supported that conclusion.

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We studied results from 2,900 organizations over the period from 2014 the spring of 2018 to determine whether radical innovators are better off capability-wise than those who pursue incremental innovations. The data set from each organization typically consists of hundreds of individual survey responses and many other metrics.

What we found was that *radical Innovators tend to be far more organized than incremental innovators*. One reason for those results is that caution often drives incremental innovators while the aspiration and the willingness to innovate are significantly stronger for radical innovators, across all categories: Product Innovation, Process, Organisational Structures, Management System, Production, Business Model and Services.

To be clear, incremental innovation can have value within specific conditions, but only within a larger structure that is committed to more ambitious goals. Radical innovators tend to be more developed with respect to their approach innovation management, systematically dividing their work among several innovation horizons. They maintain and nurture multiple leadership styles and strategies for optimal resource usage and value creation in the innovation process.

4 Cornerstones of the Innovation System

The foundation of an effective innovation system begins with defining by your approach to the system's Governance, Processes, Organization, and Tool Set.

The Governance component typically consist of an innovation board or steering committee and one or more innovation task force(s). Don't underestimate how imperative it is to assign the most effective governance system to your project. This decision correlates strongly with the eventual success or failure of innovation projects.

Your governance model determines the process of how the work will be managed and directed from exploration through to execution. That involves making the most intelligently informed choices about Portfolio Management, Risk Assessment, Platform, and Components. You may discover here that you are better served by operating several innovation systems at the same time, either because you will manage projects for different innovation horizons or because various group within the organization have very different capability profiles.

The organization of your innovation project is largely a design choice, but also driven by your culture. It normally takes the form of a central department with a collection of collaborating satellites groups or a cross-functional teams integrated within the existing organizational chart.

The tools you choose will incorporate the application of the best methodologies, technologies, and talent resources for each required task.

When to Call for Spikes

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The difference between organizations that regularly innovate and those that struggle with this process comes down to adaptability. Those that consistently win commit to doing whatever it takes to achieve their goals. They measure, modify, and adjust course. They don't commit all their resources to bringing a single innovative concept to market.

One of the most effective ways to implement this kind of flexibility in thinking is through a concept borrowed from the world of extreme programming (XP) and Agile software development known as the "Spike."

Efficient software development does not proceed linearly from ideation to code lock. There are frequent digressions, sudden leaps, iterative loops, and occasional dead ends. As components in development are tested, refined, modified, and enhanced, sometimes you have to go back to the drawing board and learn more about what you are trying to accomplish. The same basic dynamics are at play in bringing innovations to life.

This is especially true for concepts explored inside the H2 time frame. As a reminder, here's a recap of the three horizons innovators should keep in mind at all times:

Horizon 1 (H1) refers to Core functionality improvements that can be implemented within 1 year. The strategic focus is on ideas that optimize the current business model.

Horizon 2 (H2) refers to Grow possibilities that can be brought to market in 1 – 3 year range. The focus is on expanding into new types of business with adjacent innovations.

Horizon 3 (H3) refers to the most radical innovations that will take 3 - 5+ years to realize. These are the moon shots and skunk works that test out what's possible with small initial bets on emerging tech.

For projects within H2, managers and C-level executives are often conflicted. They feel both intense pressure to succeed and that there is sufficient time to ask for perfection from the innovation task force. When bottlenecks and roadblocks get in the way of project timelines, organizational leaders tend to push harder. This frequently turns out to be counterproductive. You could just be pouring resources and efforts down an innovation sink. Ideation testing resolves whether the idea is inherently flawed or just mired in practical difficulties.

This is precisely the point where we recommend a "spike." Project teams up against a wall should generate a "spike" and take the idea back to the ideation loop. Spikes may not be popular but they can save a massive amount of time, effort, and investment capital.

Spikes temporarily move projects from execution back to exploration. During the exploration stage, teams prioritize optimal ideation and selection of ideas based on testing out hypotheses. However, when a project moves into execution, it's common for opinions and commitments to harden as business leaders are already thinking about execution decisions related to development and commercialization. Innovation teams shouldn't be surprised if leaders tend to push back against returning to the freeform exploration mode at that point.

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A spike sets of a period of intense research, investigation, and re-examination of discarded ideas with linked experiments and new hypotheses. The results of the spike often break down hidden assumptions or suggest alternative solutions to seemingly irresolvable issues. Even if the investigations determine that the team should start work on a different project altogether, it is better to learn that at this early stage rather than risk insufficient capitalization on a great idea in the global market.

The Idea Incubator

We explore and expand on all of the above concepts in the chapters ahead. This book will not be an academic review of how innovations systems operate in theory, but a working manual for those who need to generate viable innovations as they actively steer their organizations through turbulent times. The innovation systems that you will put in place over the months and years ahead will act as de facto idea incubators, giving great ideas the best chance at succeeding and assuring business continuity in the face of disruptive tech and world-class competition. Let's go to work.

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