

Innovation Governance: Aligning Strategy, Ideation and Execution for Better Business Results

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Executive Summary

More than ever, corporate executives consider product innovation to be a competitive necessity and a key factor in driving business growth through increased revenue, lowered costs, and reduced time to market. This is reflected in the fact that even during times of economic crisis R&D spending has held up well.

This paper describes a unique approach to managing innovation processes and the people involved in those processes, called innovation governance. Innovation governance is a system of cross-functional decision-making processes that *define, align, and manage innovation activities across the entire product lifecycle, ensuring the achievement of strategic growth goals*. It encompasses business decisions that impact every phase of the product lifecycle and affect many parts of the organization.

Within the product lifecycle, and at various levels within the organization, business decisions need to be made about areas such as:

- The strategic fit of products in terms of market requirements, sustainability, compliance and innovativeness;
- The allocation of funding and/or resources to product development projects and initiatives; and
- Selection and prioritization within the product portfolio.

Innovation governance recognizes that, while product innovation involves the actions of creative individuals within the organization, strategic business decisions must nevertheless be supported by efficient, structured processes from product idea to launch and beyond. Such processes generate the knowledge and expertise which form the basis of sound decision-making, ensuring alignment of innovation strategy, ideation, and execution.

Such alignment enables those involved in product innovation to select and prioritize ‘winners’, to avoid wasting precious creative resources on product ideas that are destined for failure, and to follow innovation processes efficiently. The governance areas and embedded best practices outlined in this paper are therefore of key importance to improving the business impact of product innovation.

Product Innovation Matters

Product Innovation is Crucial for Sustainable Growth

Product innovation – the development of new and improved products, both tangible goods and intangible services – is considered by most executives to be crucial to the survival and prosperity of the modern corporation. In a recent McKinsey survey, Seventy percent of CEOs included innovation among their top three priorities for driving growth. The majority of those surveyed stated that innovation is central to a company's strategy and performance.¹

The scope of innovation is by no means limited to product innovation. It covers many aspects of a company's business. IBM, for example, lists the following principal definitions of innovation:

- *Business Model* – Innovation in the structure and/or financial model of the business;
- *Operational* – Innovation that improves the effectiveness and efficiency of core processes and functions; and
- *Products/Services/Markets* – Innovation applied to products or services, or 'go-to-market' activities.

While all three of the above types of innovation are considered important, respondents to a global survey of CEOs conducted by IBM identified product and markets as the starting points and main drivers of innovation in business models and operational activities.²

The view that innovation in products and markets enables sustainable margins over time is manifest in the strong correlation between successful innovation and overall business success. A recent global survey of innovation practices conducted by Boston Consulting Group in partnership with BusinessWeek, showed how innovative companies typically generate superior returns for shareholders: a premium of 12.4 percent compared with industry peers over a three year period.³

Recovering from Recession

Did attitudes to product innovation change during the economic downturn of 2008-2009? What that crisis showed, in fact, is that even in turbulent times there is little slowdown in R&D spending among global innovation leaders.

Nearly three-quarters of the companies surveyed during the recession by Booz & Company were maintaining or expanding R&D portfolios. More than 90 percent of executives considered innovation to be critical as they prepared for an upturn.⁴ This trend was also clearly visible in the Boston Consulting Group's research: 84 percent of companies surveyed considered innovation to be either 'important' or 'extremely important' as a lever for benefitting from an economic recovery.⁵

Overall, research indicates that innovation has become a core component of corporate strategy, anchored in long-running development cycles and contracts with customers and suppliers. The recession was seen as a time to build competitive advantage and prepare for recovery.

Spending Smarter to Improve Business Impact

While affirming the importance of innovation for building sustainable competitive advantage, CEOs also state that in the light of current market conditions their companies are working hard to spend smarter. Studies by AMR Research show that senior executives are seeking to maximize returns from R&D investments.⁶

Some examples of smarter spending include:

- Shifting resources away from basic research to prioritize product launches;
- Making innovation processes more efficient;
- Killing weak projects earlier;
- Tightening up on risk-related criteria when making green light decisions;
- Improving asset utilization by removing underperforming SKUs without sacrificing potential revenue;
- More cautious assessment of new technologies;
- Tightening relationships with customers and consumers;
- Developing *affordable* new products and simplifying programs;
- Measuring R&D productivity (e.g. calculating research and development spending as a percentage of gross margins, risk-adjusted NPV or some similar metric); and
- Consolidating R&D resources into global and local centers and allocating research resources according to a project's priority to help speed project completion.

We can summarize by saying that CEOs have become more cautious about their investments, while seeking to increase the impact on their company's business.

The Need to Govern Innovation

The actions listed above imply increased involvement on the part of top managers in what happens within the innovation process. For example, a majority of the C-level managers who participated in the McKinsey survey cited earlier said that it is they who routinely decide where to focus innovation efforts, where and how to commercialize, and who works on innovation.

The McKinsey study also uncovered what appears to be a sizeable gap between innovation efforts at the top of the participating organization and innovation activities inside the business units. Most of the CEOs stated that innovation efforts were primarily focused on product/service development within the units, whereas leadership was relying on external discussions with peers, partners or suppliers (75 percent) and personal interactions with consumers (67 percent). Compared to unit-level innovators, senior executives also said that they rely much less on quantitative consumer insight research (24 percent). Less than one-third of top managers have integrated innovation into their own strategic agenda.⁷

In summary, what McKinsey's research points to is a governance gap; executives are often isolated from the actual innovators within their companies.

Innovation Governance and Creative-thinking People

In order to achieve the strategic innovation and performance goals of their organization, senior managers need to define, design and manage innovation activities. This process, discussed in detail elsewhere in this paper, is the essence of innovation governance.

Innovation governance seeks to improve the effectiveness and the efficiency of business processes such as strategic planning and roadmapping, ideation, intellectual property development, concept development, product development, risk assessment, gated process execution, product portfolio management and resource planning. However, the distance between leaders' aspirations and the execution of innovation efforts cannot be bridged by process improvement alone. Bridging the gap also requires cultural and behavioral changes. A recent analysis by J. Barsh et al. points out that, in order to improve innovation performance, top management needs to:

1. Embrace innovation, integrating it into their own strategic agenda and setting themselves up as role models;
2. Create and encourage networks of innovators, to be facilitated by selected innovation leaders;
3. Foster a readiness to experiment, to allow for failure which the organization can learn from – to give as many employees as possible a positive experience in pursuing innovation.⁸

Management scholar Gary Hamel points out that the talented, creative thinkers that innovation depends on are increasingly self-directed – and that they are influenced as much by their peers as by supervisors. Hamel thinks, moreover, that systems will take on much of the repetitive, bureaucratic work of management, providing space for creative thinking and other types of innovation-focused behavior.⁹

Critical Business Challenges within Product Innovation

Doing the Right Projects: Improving Front-End Project Selection

The problems confronting organizations in product innovation have been studied by researchers for years and are well understood. Robert Cooper's seminal research has shown that 46 percent of product development resources are spent on products that fail commercially or never make it to market. Furthermore, of those products that are launched to the market, 41 percent fail.¹⁰

One of the most significant differences between best-practice companies and average companies is the level of effort invested in assessing ideas before they are advanced to development. In other words, the 'average' company doesn't 'kill' bad ideas early enough. By investing in products that are destined for failure, not only does the company waste resources, it is distracted from "doing the right projects".

It is estimated that best-practice companies spend 75 percent more time than average companies in up-front assessment of the viability of product ideas.¹¹ Examples of such assessment activities include:

- Ensuring ideas are aligned with strategy;
- Initial screening and evaluation of ideas;
- Evaluating ideas in focus groups and expert forums;
- Developing ideas into optimal concepts;
- Carrying out preliminary market and technical assessments (validation of actual market needs);
- Preliminary business and financial assessments; and
- Creating clear product definitions.

Feeding a High-value Funnel with Good Ideas

Some companies – as many as 79 percent – admit to a lack of high-value projects in their portfolio, which means not enough high-value ideas are entering their pipeline.¹² It has been shown that, across industries, low-performing companies introduce twice as many incremental products than do high-performing companies.¹³

As Figure 1 shows, best-practice companies generate a high percentage of revenue (49 percent) from products introduced in the past five years. These are typically the products with the highest profit margins. Companies *not* in the best-practice group generate only 25 percent of their revenue from new products.

However, the figure also shows that best-practice companies spend a smaller percentage of their resources on project failures. They do this by killing low-potential projects earlier. The funnel (represented by the blue area) narrows more sharply as low-potential projects are eliminated.

Companies *not* in the best-practice group, spend more than twice as much on unsuccessful products. The funnel of projects remains thicker, but fewer projects succeed.

It is important to recognize that front-end analyses shouldn't stop with the 'fuzzy' front-end. Checking technical, market, and business assumptions made at the outset of a project during gate meetings later in the development process is a critical best practice. The money invested in each project increases as it moves through the development process. It follows that thinning out ill-fated projects earlier leads to savings, and enables a company to concentrate its resources on more promising products. The early stages of the process are therefore often referred to as the 'funneling' stages.

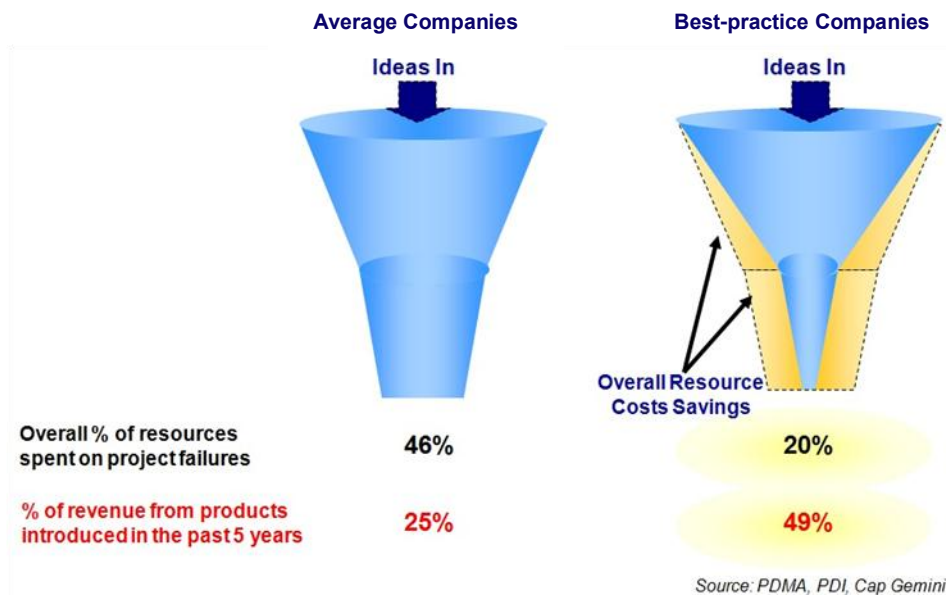


Figure 1: Overall Impact of Front-end Activities on Costs and Revenues. The higher-than-average revenues generated from new product releases of best-practice companies are coupled with below-average waste of resources on failed projects.

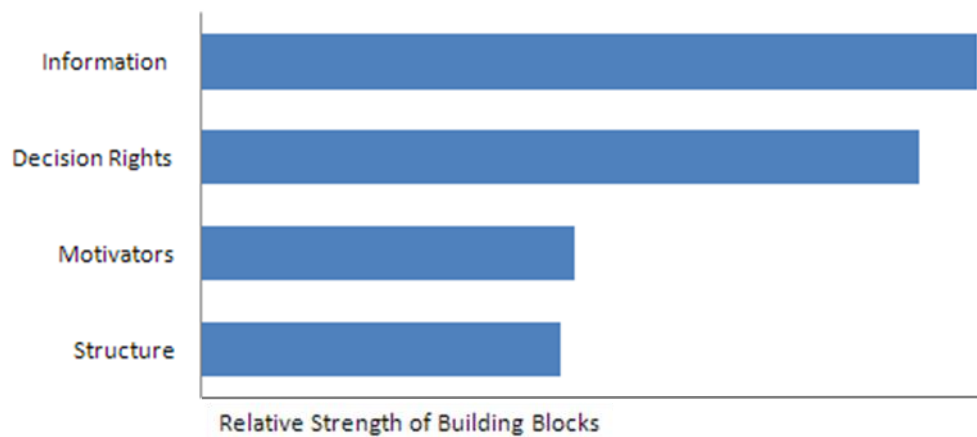
Aligning Strategy and Execution

Many product development failures are caused by a lack of alignment between the company's product innovation strategy and the execution of projects.

People working within product development often have insufficient visibility of the product roadmap. They are unaware of the strategic decisions that underpin it and so are unable to align their activities with it. Conversely, senior management is unable to track the degree of compliance with strategic decisions. These deficiencies, both representing breakdowns in innovation governance, lead to poor selection of projects, lack of oversight of project execution, resource bottlenecks and failed projects.

An ongoing survey carried out by Booz & Company, based on 125,000 profiles representing over 1,000 organizations, has shown that three out of five employees disagree with the statement: "Important strategic and operational decisions are quickly translated into action."¹⁴

While one might speculate that the issue of inaction is rooted in organizational structure, Booz & Company's research has determined that weak execution can most often be traced to another, more specific cause: the lack of a proper flow of information and clear decision-taking.



Source: Booz & Company

Figure 2: Most Important Success Factors for Execution. Research shows that, of the four fundamental building blocks for successful execution of strategy, a clear definition of authority in decision-making and ensuring that information flows where it needs to go, are both almost twice as important as employee motivators and organizational structure.

Booz has identified a number of traits common to organizations that are effective in implementing strategy. The top five attributes are connected with information flow and decision-making.¹⁵ In order of importance, they are:

1. Everyone has a good idea of the decisions and actions for which he or she is responsible.
2. Important information about the competitive environment gets to headquarters quickly.
3. Once made, decisions are rarely second-guessed.
4. Information flows freely across organizational boundaries.
5. Field and line employees usually have the information they need to understand the bottom-line impact of their day-to-day choices.

Challenges with Managing Product Portfolios

The product portfolio is situated at the heart of innovation governance, between strategy and execution. On the one hand, it must represent the strategy (i.e., how much investment do we intend to make in the various strategic areas?). On the other hand, the portfolio must represent the product development projects currently being executed. Because of this duality, one of the principal preoccupations of product portfolio management (PPM) is to ascertain whether execution is aligned to strategy.

The Aberdeen Group has twice investigated PPM practices, once in 2006 and more recently in 2009. The results were surprisingly constant. The research showed that companies that are successful at PPM achieve significantly higher margins, the negative impact of economic downturns notwithstanding. The 2009 survey identified a number of issues that can get in the way of successful product portfolio management.¹⁶

When companies fail to resolve these challenges, the consequences can be grim. For instance, they may be unable to capitalize on new market opportunities, to defend or increase market share, or to react in time to product commoditization. Such companies may also be unable to align their portfolios with strategy, to create a balanced portfolio of long- and short-term projects, or to keep resources properly focused on high-value opportunities.

Top Challenges	2009 Responses	2006 Responses
Inability to properly value product opportunities	40%	28%
Too many projects in the pipeline	38%	Not Asked
Poorly-defined portfolio decision criteria	25%	25%
Decisions processes not based on objective information	25%	37%
Inability to align resources to appropriate projects	24%	19%

Source: Aberdeen Group

Table 1: Top Challenges of Improving PPM.

Doing Projects Right: Getting New Products to Market More Efficiently

Poor Execution of Process

Another significant issue in product development is poor execution of process. Execution shortfall is one of the biggest single causes of new product failures. Conversely, research shows that sound execution can have a dramatically positive effect on the business impact of product development.

Solid implementation of fundamental technical and marketing activities, for instance, can more than double product development success rates, and generate products that capture an average of 18 percent more market share than products that are not supported by sound task execution.¹⁷

Communication

Poor communication is one of the biggest impediments to process efficiency and cost-effective use of resources. Areas where communication inefficiencies often occur include:

- Gathering information about markets, competitors or technologies;
- Tracking the status of project tasks and activities;
- Defining what to include in gate deliverables;
- Reporting basic project information, status and metrics to relevant parties;
- Recreating work already completed elsewhere;
- Creating and organizing new projects from scratch;
- Synthesizing and organizing information for gate meetings;
- Traveling to and attending project or gate meetings;
- Searching for internal knowledge and expertise; and
- Training and bringing new team members up to speed.

The Governance of Product Innovation

Scope of Innovation Governance

Among suppliers in the product lifecycle management space, Sopheon is unique in providing solutions that address each of the critical business challenges examined in the previous section, all of which fall within the scope of innovation governance.

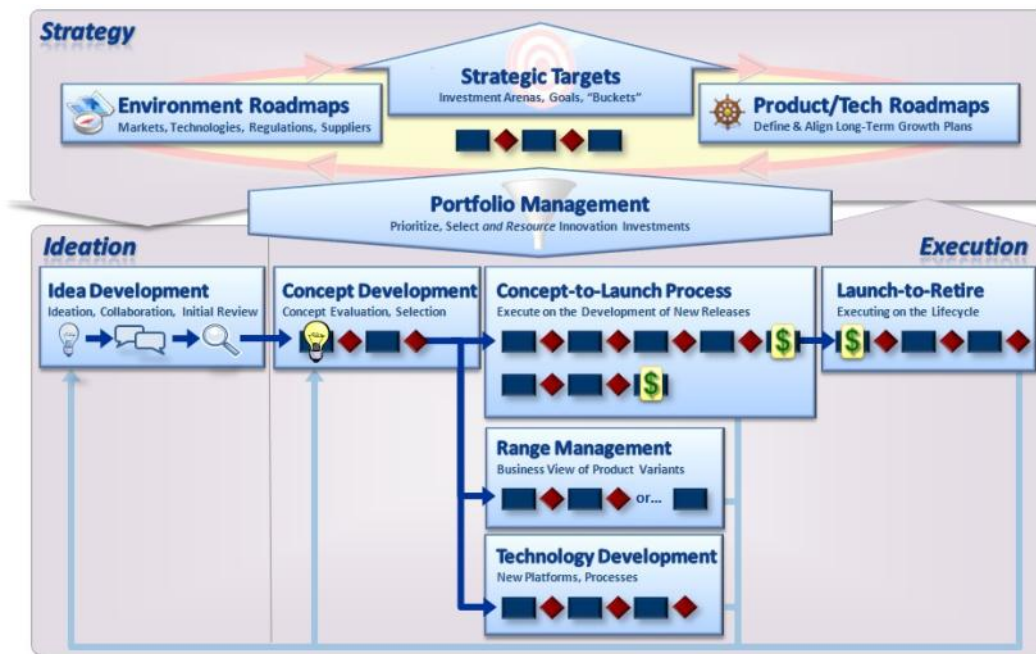
Most companies have invested heavily in business processes and tools to support the design, supply, manufacture, and sale of new products. However, when it comes to innovation strategy, ideation, portfolio management and cross-functional execution, many organizations have little or no process support, apart from a collection of spreadsheets or home-made solutions. Yet some of the most critical decisions are made in these areas – decisions that determine both the cost and the value of products, decisions that cannot be easily changed after they are made.

Sopheon provides innovation governance solutions that not only help improve and support these latter, often neglected process areas, but also enable users to align innovation activities across the entire product lifecycle.

As stated earlier, we define innovation governance as follows:

“Innovation governance is a system of cross-functional decision-making processes to define, align, and manage innovation activities across the entire product lifecycle. Effective innovation governance ensures the achievement of strategic growth goals.”

Figure 3 illustrates the scope of business processes encompassed by this definition. Sopheon partners with customers to improve each of these processes and keep them aligned with one another.



Source: Sopheon

Figure 3: Scope of Innovation Governance. The cross-functional decision-making processes across the product lifecycle can be grouped into two phases: planning (strategy) and operations (ideation and execution). Portfolio management links the two, and keeps them aligned.

To begin, we enable companies to improve the strategic aspects of innovation. This typically calls for supporting iterative planning cycles that operate in parallel with strategic planning processes. The first step is most often a review of the business environment, including assessment of primary market segments, external technology trends, regulatory trends, and competitive and supplier trends. These market roadmaps form the basis for the goals and targets identified in the strategic innovation plan. Once the goals and targets are in view, long-term product and technology roadmaps are developed that show the path the company will follow to achieve its objectives. This cycle of planning defines where product innovation should proceed, from the top down.

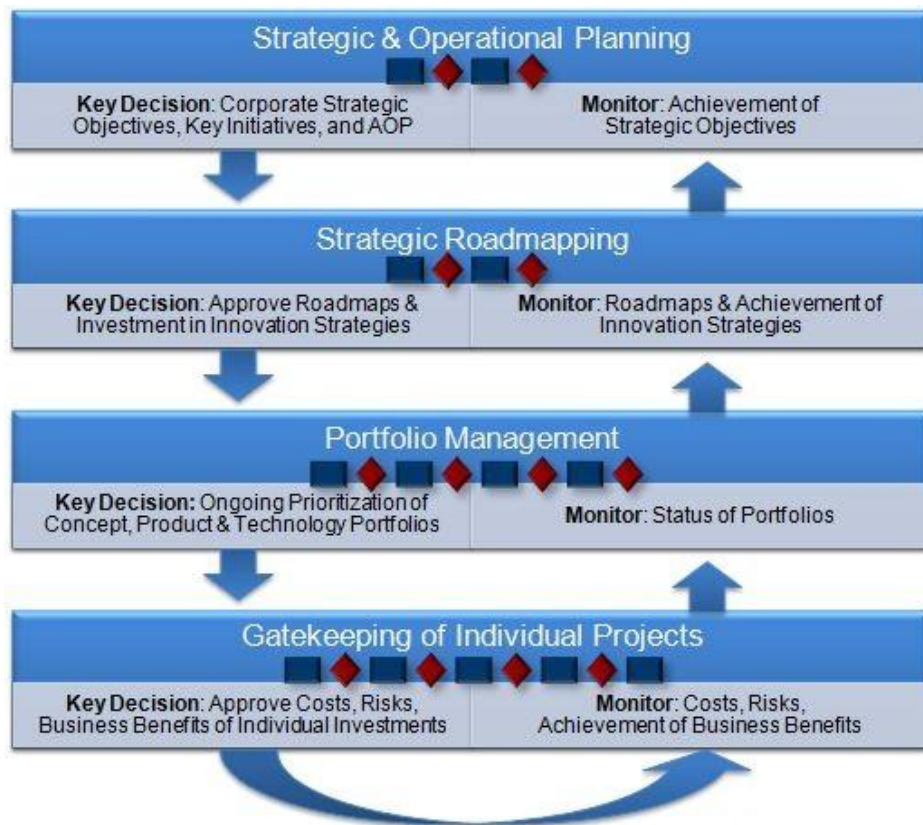
Portfolio management decisions serve as an interface between strategic planning and the execution of innovation projects. The most traditional type of innovation project is a product project, characterized by the concept-to-launch Stage-Gate® process. However, there are other processes where effective execution is paramount, including idea development, concept development, post-launch processes, and sub-processes such as technology development and range or variant management.

Sopheon's solutions enable effective management of, and alignment across, all aspects of, the processes encompassed within the scope of innovation.

Decision Support

Product innovation involves a whole series of decisions, linking strategy to execution. The Booz & Company survey mentioned earlier determined that clear decision-making rights and an adequate flow of information were the two most important requirements for successful execution of strategy.¹⁸ Decision support and information flow are also at the core of Sopheon's approach to innovation governance.

It therefore follows that *more effective and efficient decision-making* translates into *more effective innovation processes*. In Figure 4, we see that key decisions are made and communicated down through the organization. The execution of business processes is continuously monitored at the various levels of product innovation and converted into an upward flow of information that enables management at each level to check whether decisions are being followed, and keeps them apprised of the results of any actions.



Source: Sopheon

Figure 4: Decision-making and Information Flow in Innovation Governance. Top-down and bottom-up communication, as well as the flow of information, are key to effective and efficient decision-making.

Strategic Planning and Roadmapping

Figure 4 shows a level of innovation governance referred to as strategic and operational planning. For most organizations, this involves planning across a number of time horizons and explains why the planning deliverables are sometimes referred to as horizon plans. The activity might focus on planning for today – an operational plan for the coming year, or a rolling mid-term plan for three years, for instance. However, innovation governance is a holistic process. You also need to stretch your thinking across more distant horizons to define long-term, transformational goals. These long-term goals will differ from company to company – for some of our customers, it is three years, and for some it is 20 – but it always consists of asking what market opportunities you will address, what products will meet those needs, and what technologies you will need to invest in today to get there.

Horizon plans can help you identify top-down, key strategies and objectives relating to market opportunities, and ensure they extend into the long term. Horizon views can help business leaders to stretch their thinking beyond the short term and focus on those market needs that represent the best growth opportunities of the future.

Roadmaps are the optimal tool for expressing horizon plans. To be most effective, the planning process requires that roadmaps be created at different layers of the business:

- Market roadmaps that can help identify potential long-term breakthrough opportunities;
- Product roadmaps that ensure long-term differentiation; and
- Technology roadmaps that help you plan for long-term platform transformation.

Cross-functional Roadmapping

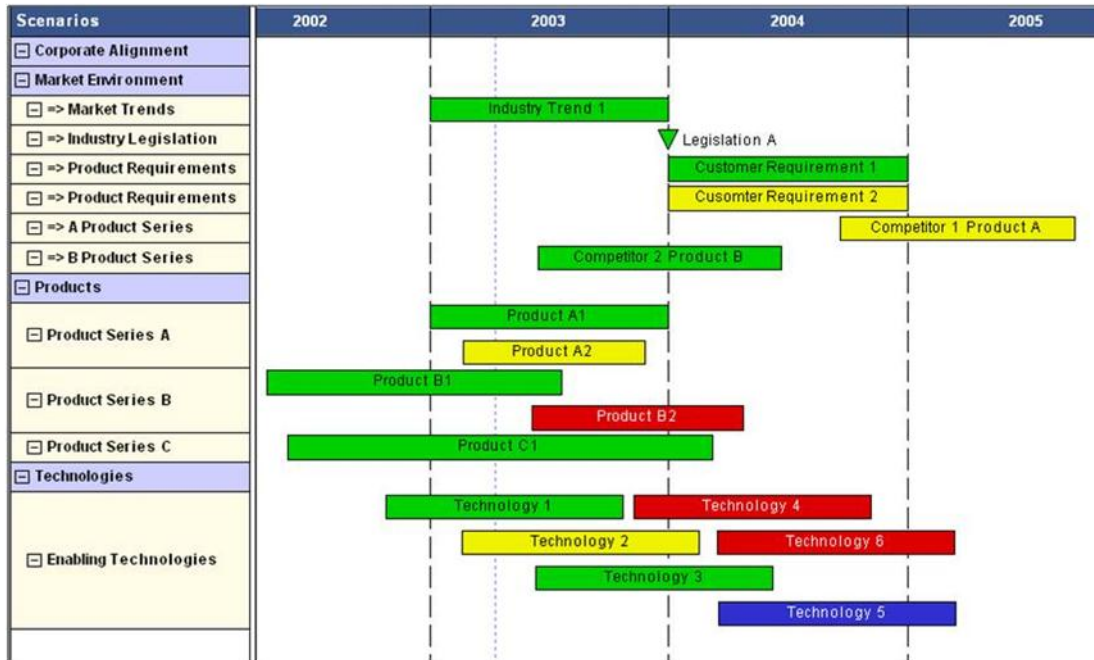
Using collaborative facilitation techniques is a good way to start roadmap development. It helps to educate people about the process and to initiate roadmap discussions. It often involves brainstorming about future directions via sticky notes mapped over visual timeframes.

Roadmapping involves cross-functional collaboration:

- The marketing team, which tends to focus on ‘know-why’ questions, can look at trends across horizons and distill them down to specific needs;
- Product line managers, who focus on ‘know-when’ questions, can define an evolutionary plan for their products;
- Scientists and engineers, who address ‘know-how’ questions, can define technology paths that leverage platforms across product and market opportunities.

Each functional area must own the type of information for which it has responsibility and provide input for planning teams to create integrated views on which to base agreement on direction and the development of long-term plans.

Consolidation of functional roadmaps creates a collaborative, long-term strategic go-forward plan, as shown in Figure 5. A primary benefit of this process is that all stakeholders can be confident that investments are aligned with future growth plans. Organizations that don’t use roadmapping typically have limited insight into where innovation projects will take them in the long term. This severely restricts their ability to effectively manage their strategic product portfolios.



Source: Sopheon

Figure 5: Example of a Strategic Roadmap. The collaborative long-term strategic planning process creates cross-functional linkage (markets, products, technology) and results in a consolidated go-forward plan.

Ideation and Front-end Management

Managing innovation is a critical success factor for decision-making in product development. It focuses explicitly on the front-end of the operational phase of innovation governance, namely idea generation and concept development (see Figure 3 above).

Idea Development

A dearth of ideas is not the main challenge that many companies experience; on the contrary, they have too many of them, with no clear way of extracting and nurturing the potentially great ideas that will drive true market success.

Simple web-enabled 'idea boxes' that anyone can access have generally proven ineffective. That is because they merely act as collection points, with no provision for helping to identify and develop those ideas with real potential. The most successful ideation solutions support targeted 'idea events' and idea development, while also ensuring that the ideation process is linked to strategy.¹⁹

Successful idea development is in fact frequently based on campaigns about a specific strategic topic and aimed at a particular, relevant community of innovators. An effective idea development solution is based on a set of proven best practices. In our view, adherence to the following principles will spell the difference between a portfolio of average ideas and a portfolio of great ideas that have the potential to become great products. They are as follows:

- Support idea development via campaigns that reflect your corporate strategy;
- Automatically connect submitters to other knowledge sources and leverage those connections to develop ideas through structured discussions and links to existing ideas;

- Enable cultures and communities to participate in innovation (having the ability to model these groups); and
- Enable an appropriate workflow of ideas (not the traditional stage- and phase-based processes, which will be applied later during product development).

An innovation management solution enables the assessment of ideas by diverse people inside the company, facilitates the analysis of several ideas at once, and incorporates benchmarking comparisons and input from third-party industry experts.

Identifying New Opportunities

When exploring a potential strategic market or technology, it is often useful to search the landscape for potentially competitive intellectual property (IP).²⁰ This helps a company determine whether it is free to operate in particular identified areas of opportunity.

Questions that should be considered include:

1. What is the relative strength of our IP position against existing and potential competitors in this field?
2. What new patent filings, if any, have our competitors placed recently? What is the content of those patents? Do they infringe on any areas our company has been contemplating?
3. Are there freedom-to-operate 'white spaces' that could be of value to our organization and/or should be investigated further? Are there areas that we should invest in now to protect our freedom to operate against future competition?

A growing number of companies have begun to use software to mine patent intelligence as a way of uncovering new product and market opportunities. These efforts help to fuel their idea development efforts.

Seamless Integration with Product Introduction Processes

An idea development solution should make it easy to push high-value ideas to the execution stages of product development. A comprehensive, strategically-oriented solution seamlessly integrates innovation management into the rest of the product development process.

Portfolio and Resource Planning

Product Portfolio Management

Product portfolio management (PPM) is at the heart of innovation governance. It is fundamental to 'doing the right projects.' At the same time, the monitoring aspect of portfolio management allows an organization to see whether it is 'doing the projects right.' Typical portfolio management challenges were covered earlier in this paper. They included properly valuing activities, effectively managing projects with available resources, developing well-defined portfolio decision criteria and, above all, providing access to accurate, objective information upon which to base decisions.

Top-down Portfolio Management

The Aberdeen Group has identified a number of key strategies for improving product portfolio management:

- Aligning portfolio to corporate strategy;
- Establishing a repeatable product innovation process;
- Formalizing value assessment process; and
- Defining a clear owner of processes and portfolio reviews.²¹

When it comes to ensuring alignment between strategies and portfolios, portfolio management solutions can be a great help. For example, they are able to pull strategic roadmap and project data into a single, centralized database repository. Executives can then use this integrated data to dynamically generate a variety of reports that allow for complex analyses on varying levels of detail. Such top-down views enable decision-makers to align spending with strategic objectives, and to maximize the value of portfolios by ensuring early identification of winners and losers.

Bottom-up Portfolio Monitoring

In order to have access to reliable, up-to-date data on product innovation projects, an organization must first put in place a repeatable innovation process. Figure 3 shows the business processes that generate the information required for the creation of bottom-up views of portfolios. These views enable executives to monitor the status of multiple projects. They also facilitate more informed, and consequently better, portfolio decisions.

All of the business processes falling within the scope of innovation governance require cross-functional input (e.g. marketing information, regulatory data, etc.). A viable portfolio management solution provides ready-made best-practice templates which support the calculation of both project and portfolio value. An effective portfolio management system also communicates project status in real time, allowing executives to track projects at risk, understand schedule delays, identify critical decisions, and take timely action to optimize outcomes.

Best Practices

Finally, an effective strategic portfolio management solution allows companies to build on known best practices in metrics and portfolio management, while customizing those metrics and reports to their own unique needs.²² The solution should contain the masterfile of best-practice metrics commonly used in pertinent industries. This in turn reduces the amount of time required to prioritize projects since relevant, objective and standardized metrics are readily available.

Portfolio Management and Resource Planning

It is important to note that in this context, product portfolio management solutions that improve decision-making for product teams address project and resource *planning*, and not the detailed management of project schedules and dependencies.

- From a resource-planning standpoint, they ensure that resource requirements are clearly communicated and improve forecasting by allowing better understanding of anticipated resource demands;
- They help eliminate bottlenecks before they arise; and
- Reporting capabilities provide the visibility of resource usage needed within product portfolio planning to measure capacity and utilization, and to identify resource trends that help inform allocation priorities.

Traditional project and resource management tools are also essential to the development process. However, they typically operate at a more granular level than is useful to the needs of the average team member. PPM requires a high-level focus on project tasks, deliverables, and resource requests so that teams are able to concentrate on the important elements of their teamwork without getting lost in the details.

Best-practice Process Structure and Execution

Structured product development processes – most notably the Stage-Gate process – have been around for over twenty years. If used appropriately, they can help companies take great strides forward in improving the business impact of product development. One reason is that these processes emphasize the importance of completing the work required at the fuzzy front-end so that the right products are funded.

Product portfolio management and innovation governance solutions should ensure that front-end best practices are systematically applied. Specific examples of support for these best practices include:

- Facilitating adherence to an organization's structured development process;
- Controlling the consistent usage of process and deliverable templates;
- Training of team leaders and members in effective process execution; and
- Helping to bring new team members up to speed as quickly as possible.

Best-practice Processes

Solutions that address the business impact of product development enable companies to more effectively leverage best practices by using technology to make it easier to adopt a structured process. There are versions of Stage-Gate and/or Phase-Gate which are suitable for particular industries. A viable solution ensures process adherence by using predefined models to set up all new projects and project plans. The processes should be instantly visible, and it should be easy to see which projects are in the pipeline and which stage they are in.

Best-practice Deliverables, Templates and Metrics

In addition, innovation governance solutions enhance the quality of project execution by providing best-practice templates and content, such as how-to's that outline the most effective way to execute a particular task within the process. These templates capture the input of the different departments (marketing, R&D, supply chain, purchasing, IP, health, safety and environment, etc.). They may be simple Microsoft® Word documents, spreadsheets or scorecards. The knowledge of the finance department, for instance, should be represented in the structure of the financial template. The designers of this document must ensure that the appropriate metrics are being entered and calculated.

Finally, because knowledge is captured during the innovation process and made available electronically (rather than filed away in a three-ring binder), the support solution minimizes time and training costs by making learning tools available on a 'just-in-time' basis. This allows users to quickly develop an understanding of new tasks.

Best-practice Portfolio Reports

Innovation governance solutions should offer an appropriate set of reports that reflect best-practice information requirements:

- Pipeline reports should show the status of all projects;
- Portfolio analysis reports should show whether projects are aligned with strategy, deliver sufficient value and are a balance of short-term and long-term, large and small, incremental and breakout innovation; and
- Process performance charts should show whether there is a sufficient volume of ideas, whether the concepts and projects in each stage provide a satisfactory funnel, whether enough ideas are being 'killed' to allow concentration on those that are most promising.

Overall, product innovation tools should incorporate the appropriate masterfile of processes, deliverables, data and metrics, and portfolio reports as covered in Figure 3 above.

Planning and Collaboration

Effective decision-making is also critical in the tactical processes of project planning, resource planning and collaboration. In this context, good decision-making leads to 'doing projects right.' Product innovation solutions should therefore offer the following capabilities:

- Tracking of projects via easy access to status and reporting information. This helps avoid 'surprises' such as projects coming in late or over-budget;
- Clear assignment of deliverables and tasks by means of a common 'team home page' that allows team members to view responsibilities, as well as open and completed actions;
- Easy location of current documents; information should not be situated on various disconnected, unorganized drives, but shared within the project;
- Ability to collaborate effectively across departments and geographies; and
- Simple sharing and communication with and between third-party development partners.

Improving Process Efficiency

Effective gate and portfolio management decisions are dependent on knowledgeable judgments, which can only be made on the basis of credible real-time data. Efficient process execution, together with a system that enables the gathering of this data with a minimum of time and effort, add greatly to the business impact of innovation processes.

Process Management and Information-Sharing

Solutions that support improved decision-making can help organizations to more easily generate, access, share and use the information required throughout the development process. These capabilities are particularly valuable to team leaders and cross-functional team members, who often bear the brunt of inefficiencies in manual development processes. Much of the work of innovators within a business is typically done in Microsoft Office® documents or something similar, and it is an important capability of process management tools that they allow these creative individuals to continue to use Excel®, Word or PowerPoint® documents, while at the same time enabling automatic collection of this data.

Perhaps the most important contribution of process management solutions is therefore that they avoid duplication of data-entry. Capabilities that structure project information for maximum reuse can save team members many hours of re-entering core project information in different formats. For example, such tools can dynamically generate a multitude of portfolio charts, gate scorecards and status reports, all from a single core data set.

Process Modeling

Process management solutions must have the capacity to handle various process models. They must support and automate model definition and implementation. The best tools in this category can take a process model that is entered into a system just once and use it as a template to automatically generate high-level project plans, detailed project schedules, and role requirements for team members every time a new project is started.

Other examples of process efficiency tools include email notification mechanisms (that keep team members up-to-date without their having to enter the system), 'helpful hints' on templates that take team members directly to required information resources, and status alerts or warning icons that immediately highlight those projects or tasks that need attention.

Business Benefits of Innovation Governance

Innovation governance recognizes that while product innovation depends on the actions of creative individuals within the organization, improving the business benefits of product innovation is about increasing an organization's capacity to make effective decisions at all points of the product innovation process.

Effective decision-making offers numerous benefits:

- Process execution is aligned with strategies for growing value and increasing market share;
- Those involved in product innovation are able to select and prioritize ‘winners’;
- Management can avoid wasting precious creative resources on product ideas that are destined for failure; and
- Innovators are able to follow innovation processes efficiently, which improves time to market.

In order to achieve these benefits, decision-making needs to be supported by efficient, structured processes which generate the necessary data without hindering the creativity of those engaged in product innovation.

In the end, innovation governance solutions *must* improve the flow of information on which vital business decisions are based, while simultaneously encouraging and enabling profitable innovation. This is one of Sopheon’s guiding principles.

Our experience with over 150 customers indicates that implementing and improving innovation governance can result in tangible and measurable business benefits:

- 75-85 percent success rate of new product compared to 50 percent historically;
- 15-30 percent higher innovation throughput; and
- 75-100 percent higher value of product portfolios.

Most importantly, effective systems of innovation governance become the engine that powers long-term market differentiation, leading to sustainable, profitable revenue growth from new products.

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About the Author

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About Sopheon

Sopheon (LSE:SPE) is an international provider of software and services that help organizations improve the business impact of product innovation. Sopheon's Accolade® software suite is the first in the industry to provide end-to-end support for strategic product planning, ideation and innovation process execution. The suite's Vision Strategist™ component automates the roadmapping process, allowing users to visualize and plan the future of products and technologies. Accolade's Idea Lab™ component helps organizations generate, select and develop winning product ideas. Accolade Process Manager™ automates the product innovation process and provides strategic decision support for the management of product portfolios.

Sopheon's software is used by top innovators throughout the world, including industry leaders such as BASF, ConAgra Foods, Corning, Electrolux, Honeywell, Northrop Grumman, PepsiCo, SABMiller and Total Petrochemicals.

Sopheon has operating bases in the United States, the United Kingdom and the Netherlands, with distribution, implementation and support channels worldwide. For more information on Sopheon and its software and service offerings, please visit www.sopheon.com.