feature

An Introduction To Strategic Roadmapping

Roadmapping has emerged as a best practice for aligning business functions with corporate strategy and projecting with precision into the future. But what does "roadmapping" involve? This paper explains the fundamentals behind roadmapping, including what it is, how companies are using roadmapping, and the results they are attaining.

The word "roadmap" generally evokes images of a one-dimensional map with lines representing roads drawn upon it. The roads are shown intersecting, circumnavigating, running in parallel and sometimes dead-ending. All of the roads are bi-directional, each affecting the course of the others that touch it.

The term "roadmapping" injects action into the map. Roads are actually being used to map a course of action, resulting in a roadmap that provides direction. Taking it one step further, "strategic roadmapping" involves manipulating the information contained in roadmaps to plan the best course of action for the future, mapping actions to align with strategic objectives.

Strategic roadmapping enables decision-makers to gain a multidimensional view into the future and manipulate planning data to reveal the outcomes of their planning scenarios. Creating roadmaps allows companies to project far into the future with the confidence that their strategic decisions are fueled by high-quality, up-to-date information. Roadmapping is about more than just moving ahead in a common direction; it provides decision-makers with the confidence that they are moving ahead in the right direction.
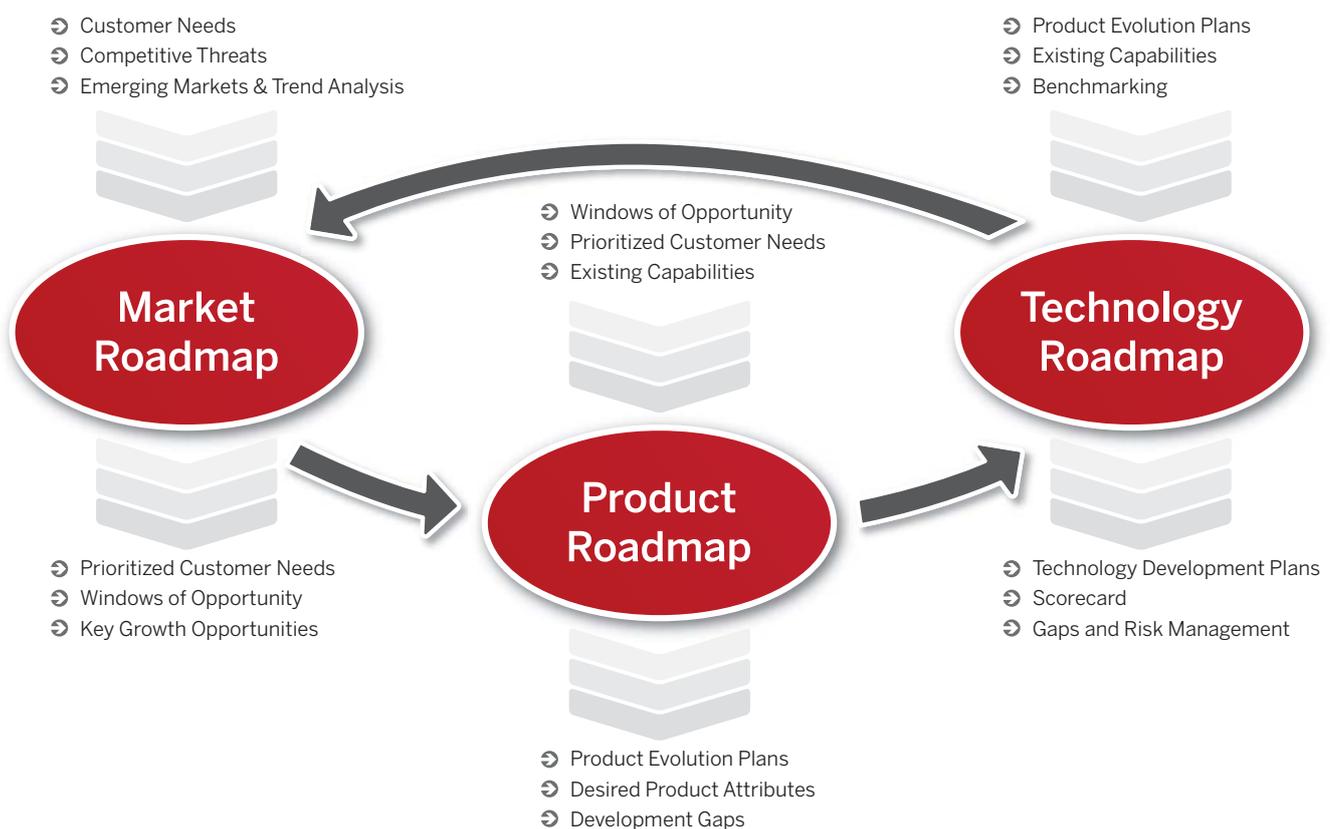
Roadmaps provide the framework for strategy creation. Roadmapping effectively turns strategy into action; tying strategic goals to tactical measures. This enables an organization to tie day-to-day planning and projects to business priorities. If applied as an enterprise framework, roadmapping has the potential to provide a bridge between all the tactical decision processes, different business functions, and organizations through the common element of time.[1]

Roadmaps Provide Strategic Views of Enterprise Plans

Roadmaps are instrumental in increasing visibility, accountability, and collaboration at almost every level of planning, enabling stakeholders to see where they fit into the larger picture and what they are accountable for in the strategic process. In fact, thousands of leading companies around the world, including Motorola, Corning, Hewlett-Packard, and Lockheed Martin use roadmaps to improve planning processes that are responsible for sustaining and improving their business performance.

Roadmaps clarify thinking among stakeholders and enable the rapid communication and sharing of ideas. They also reveal valuable linkages among functional areas of a business that are often disconnected from each other, much like the roads that link and disconnect across a map. Roadmaps should not just be viewed as the outputs of a process, but rather a snapshot of a "rolling" strategy at any moment in time.[2]

- Customer Needs
- Competitive Threats
- Emerging Markets & Trend Analysis

- Product Evolution Plans
- Existing Capabilities
- Benchmarking

- Windows of Opportunity
- Prioritized Customer Needs
- Existing Capabilities

Market Roadmap

Technology Roadmap

Product Roadmap

- Prioritized Customer Needs
- Windows of Opportunity
- Key Growth Opportunities

- Technology Development Plans
- Scorecard
- Gaps and Risk Management

- Product Evolution Plans
- Desired Product Attributes
- Development Gaps

Roadmaps Provide Strategic Views of Enterprise Plans

Roadmapping is also a practice and a business process that involves capturing strategic information on a timeline. This data typically relates to business vision, objectives, strategies, market requirements, product or service plans, technologies, and capabilities. The collected data is then fed into various roadmaps, which include a theme, timeline, time-based elements, and links among these elements.

Common roadmaps include: market, product, competitive, technology, supplier, and regulatory/environmental roadmaps; and they typically reflect the planning horizon over multiple time periods. Time-based elements represent the availability of a technology, product, market or decision point. Often, the timing of an event may not be certain. Nevertheless, placing this information in the time domain is extremely important, in that it forces the enterprise to consider its implications.

The concepts of scenarios and scenario planning also apply to roadmapping. If the timing of an event, such as a new competing product introduction, has a great degree of uncertainty, two or more scenarios may be mapped. The key is to capture the knowledge and information that impacts the enterprise so that it can be used in formulating strategic plans and business decisions.

"Roadmaps are valuable strategy tools because at their core they are all about making decisions."

For example, Corning, a leading diversified technology company, focused on entering new markets, but strategic planning across the organization was not aligned with portfolio planning, R&D efforts or market trends. The company used roadmapping across three divisions to align corporate strategy, R&D and portfolio planning. This helped them identify and select new market opportunities, enter markets early, and earn positive returns for the company within 24 months. The company also saw a decrease in development costs due to fewer last-minute changes that were difficult to integrate further down the development chain.

How Roadmapping Is Being Used

Roadmaps are being used by companies to create, maintain, share and visualize strategic planning information across the enterprise. Roadmaps define clear communication and relationships across products and suppliers, and within corporate strategies. Stakeholders can view role-based data representation and see what is important to each specific user, thus raising the level of accountability, as each element in the roadmap has a specific participant tied to it.

Roadmaps are valuable strategy tools because at their core they are all about making decisions. "What-if" scenarios, technology implications, product evolution and supplier collaboration are often dedicated subjects of detailed roadmaps that support product portfolio decisions, merger and acquisition decisions, and even endof-life or divestiture decisions. Time provides a common denominator on which any number of dimensions can be played out in advance, creating a canvas on which uncertainty and opportunity are managed into highly probable choices that create a company's future. Roadmapping software makes this process even easier.

For example, Motorola, a global communications leader, used roadmapping software to track and organize tens of thousands of product roadmap documents distributed across the enterprise. The company reported saving more than $100 million in 12 months by consolidating strategic product planning projects across business units. By halting development on a chip that would soon become obsolete, they saved an additional $100 million. Today, thousands of users actively plan, collaborate, and view Motorola's innovation projects and new potential products using roadmapping software.

At Honeywell, the need for an improved roadmapping discipline grew out of a desire to improve the link between technology innovation, product development and customer needs. The company sought a business strategy tool that would help them evaluate external conditions that impact their business, understand their planned investments, and decide how to achieve their business goals. In the first 12-18 months of deploying roadmapping software, the company improved visibility into upstream R&D efforts, ensuring that projects the company is investing in today are on target with what's important to the company's future. They now have the ability to leverage -

roadmaps across their entire enterprise, quickly adjust to ever-changing conditions, and be confident that they are aligned with business objectives.

As these examples demonstrate, roadmapping provides companies with a multidimensional view of events and other significant milestones as they are anticipated to take place across time. Motorola was able to save money by consolidating project resources. Honeywell was able to ensure that projects they're working on today are in line with what's important for their company's future. Corning was able to bring products to market faster.

Companies that get the most out of their strategic roadmapping initiatives act decisively on the information revealed in their roadmaps. They take advantage of a roadmap's unique capability to create alignment among business functions that move in-and-out of synch, unnoticed. And, although companies often use roadmaps to share a plan, their purpose is often to stimulate thinking about how to improve a plan by managing the uncertainty that it contains.

"Roadmapping provides companies with a multidimensional view of events and other significant milestones as they are anticipated to take place across time."

Roadmaps are effective because they manage uncertainty. This is often one of the elusive facts of roadmapping that is not easily understood. Yet, every plan to address the future must take into account the level of confidence in each part of the plan in order to identify and reduce uncertainty as the plan is further developed.

Benefits of Roadmapping

- ⮕ Produces greater alignment between R&D spending and product development initiatives

- ⮕ Sharpens clarity of strategic vision, resulting in better-informed decision making

- ⮕ Manages data, product plans, and goals at a high level

- ⮕ Links markets, products, technologies, capabilities, and supplier intent

- ⮕ Enables discovery of technology re-use and synergy opportunities

- ⮕ Reveals gaps, challenges, and uncertainties in product, technology, and capability plans

- ⮕ Reveals long-term strategic weaknesses before they become critical

- ⮕ Communicates and provides visibility into strategic program direction across the organization

- ⮕ Enables growth of product portfolio in line with corporate and market demands

- ⮕ Provides direction to project teams and enables them to quickly see changes in strategic events or direction

Sources
1 "Strategic and Technology Planning on a Roadmapping Foundation," Whalen
2 "Strategic and Technology Planning on a Roadmapping Foundation," Whalen