

# An Introduction to Strategic Roadmapping

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## An Introduction to Strategic Roadmapping

### What is Roadmapping?

Roadmapping is the discipline that drives improved decision making by integrating enterprise information from across functions into a set of integrated and interdependent plans used to direct strategies for innovation, product development, technology advances, and operations/ supply chain throughout an entire organization.

Roadmapping allows the organization to clearly communicate plans to enable a focus on fewer, bigger and better products that provide the best return on innovation investment. As a strategic planning process it increases transparency, making it easier to model future scenarios with multiple resource investment opportunities. Executives go beyond “gut feeling” and are truly informed decision makers who can view alternatives, perform “what-if” analysis and proceed with the best course of action.

### Why Engage in Roadmapping?

Roadmapping is essential for business and strategic alignment across an organization. According to Gartner Research, 80% of corporate executives recognize that they have a gap between strategy and product development activity<sup>1</sup>. Companies develop sound ideas and strong strategies but miss the crucial steps of communicating these learnings and securing buy-in from across the organization. Due to an overall lack of cross-functional communication and collaboration, the operational and product development areas of the business continue with the day-to-day status quo while the strategies defined by top-level executives fall by the wayside.

Roadmapping solves this problem by aligning key cross-functional stakeholders, providing a powerful tool to develop business strategy and plan execution across a common element of time. These strategic views of enterprise plans enable companies to identify potential shortfalls of growth goals and targets, and then to make better, more informed decisions about resource allocation and investment opportunities. By highlighting gaps in the innovation and new product development (NPD) planning processes, roadmapping yields valuable insights and increases an organization’s agility when reacting to constantly changing market, product, and technology factors while formulating business strategy.

### Strategic Roadmapping 101

As a proven best practice for projecting with precision into the future and aligning day-to-day functions with business plans, strategic roadmapping involves manipulating the information contained in roadmaps to plan the best course of action for what’s to come, linking actions with tactical objectives. This enables decision-makers to gain a multidimensional view into the future and alter data to reveal the outcomes of their planning scenarios.

Creating a living, sustainable discipline of roadmapping within your business requires support for thinking of roadmapping as a “business process” instead of an “event.” Roadmaps should not just be viewed as the output of a process, but rather as a rolling snapshot of strategy at any moment in time.

By projecting far into the future with the confidence that calculated decisions are fueled by high-quality, up-to-date information, strategic roadmapping propels companies ahead in a common direction while providing decision-makers with the confidence that they are moving in the right direction. In fact, thousands of leading companies around the world, including

80% of executives say they have a gap between strategy and product development activity.<sup>1</sup>

Gartner Research

“The implementation of roadmapping in an organization should be managed as a process improvement of the current planning process and not an initiative unto its own.”<sup>2</sup>

– Philip J. Whalen, PhD.  
Principal, Whalen Management Group

Motorola®, Corning®, Hewlett-Packard®, and Lockheed Martin® leverage roadmapping to enhance planning processes that are responsible for sustaining and improving their business performance.

“Roadmapping has emerged as an extremely effective process for creating and visualizing relationships among business functions in support of strategic technology planning.”<sup>3</sup>

– University of Cambridge

## Benefits of Strategic Roadmapping

Integrated cross-functional roadmaps increase organizational agility, enabling rapid modification of product offerings to meet new market demands and adapting to changing customer needs, competitive threats, or regulatory conditions. It promotes in-depth collaboration between the company, customers, partners and suppliers.

For instance, strategic roadmapping enables manufacturers to monitor the progress of all product development programs in real time and permits users to visualize where projects fit into the larger network of corporate development initiatives. It also increases cross-functional visibility, an advantage that can help uncover opportunities for the reuse of technology across the organization. Because redundant work is minimized and technology reuse is increased, there are fewer product delays and time-to-market improves. Roadmapping is an effective way to evaluate whether an organization’s competencies and capabilities are improving over time.

With strategic roadmapping you can:

- ✓ Create optimal alignment between R&D and product development initiatives.
- ✓ Stretch planning horizons to enable proactive (vs. reactive) product planning.
- ✓ Grow product portfolio(s) in line with corporate objectives and market demands.
- ✓ Uncover gaps, challenges, and uncertainties in product, technology, and capability plans.
- ✓ Expose long-term strategic weaknesses before they become critical.
- ✓ Clarify strategic vision throughout the organization.
- ✓ Communicate and provide visibility into strategic program direction across the organization.
- ✓ Manage data, product plans, and goals at a high level, and then drill down for in-depth details.
- ✓ Link markets, products, technologies and capabilities.

## Roadmapping as a Business Process

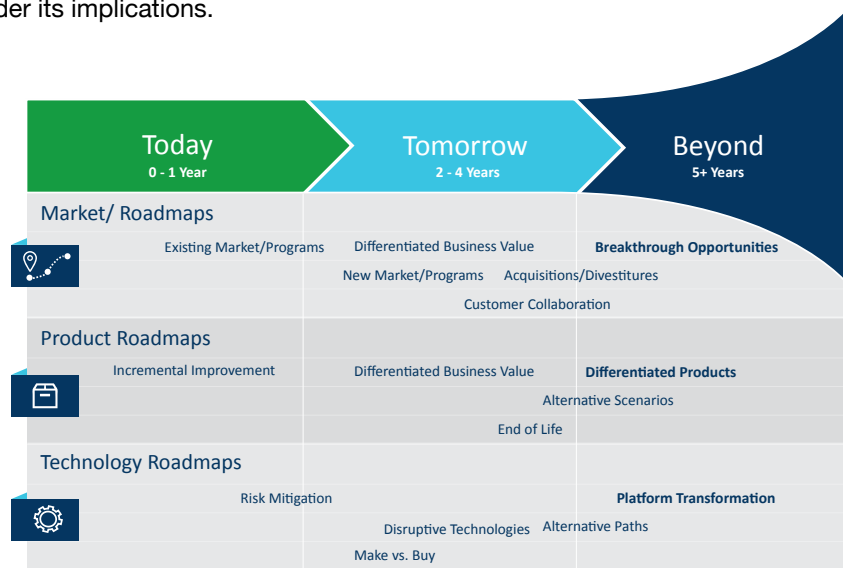
Roadmapping is a business process that involves capturing strategic information on a timeline. This data typically relates to business vision, objectives, strategies, market requirements, product or service plans, technologies, and capabilities. The collected data is then fed into various roadmaps with links between elements. It’s important as an organization to engage in roadmapping regularly — as opposed to the outdated practice of meeting once a year to discuss strategy — so the company can be agile, nimble, and capable of rapidly adapting to change.

### Four questions to effectively jump-start an inter-departmental roadmapping dialogue:

1. What do our customers need?
2. Can we view the current state and predicted future of our business ecosystem?
3. Do we have the right level of capabilities, programs, products and services in place?
4. How are we ultimately going to deliver these products and services?

Common types of roadmaps include market, product, technology, supplier, and composite. Typically, they reflect the planning horizon over multiple time periods. Time-based elements represent the availability of a technology, product, and market or decision-points. Even if the timing of an event is uncertain, placing this information in a time domain forces the enterprise to consider its implications.

**Figure 1:** An example of a high-level composite roadmap.



### Market Roadmaps

When creating a market roadmap you are evaluating the environment of the marketplace to help identify potential long-term breakthrough opportunities. This environmental assessment takes into account trends and key needs that are driving the marketplace, external influences, and the competitive landscape, forcing the team to think about assumptions being made. Problems can be spotted in advance, giving the company time to react, plan, and start solving those problems.

### Product Roadmaps

Product roadmaps are powerful tools that allow you to visualize product evolution plans and desired product attributes while pinpointing development gaps. It also helps create a business case to upper management to justify investment.

This roadmap provides a comprehensive narrative with detailed predictions of product growth — including incremental improvements and larger releases across time — and the complexities of building new product innovations. By utilizing this visual representation tool of future potential product developments, planned goals, and accomplishments, the likelihood of long-term competitive differentiation and innovation success is increased because the organization is always moving towards the horizon while adapting to current and future challenges.

### Technology Roadmaps

Technology roadmaps are high-level models of supported infrastructure with key milestones illustrated over time. They help organizations plan for long-term platform transformation while meeting short-term growth targets. Mapping key releases and upgrades of supported applications on a timeline connects infrastructure, applications, and business needs.

Technology roadmaps go beyond assessing the product evolution plans and existing capabilities (as identified in the product roadmap), and look at both internal technology resources and industry technology benchmarking standards. By including all of these factors, the future technology strategy becomes clear and enables stakeholders to create a scorecard to identify gaps and develop risk mitigation tactics.

“Every enterprise needs a process to track innovations to determine 1) their applicability to the business, and 2) if, and when, to implement.”<sup>5</sup>

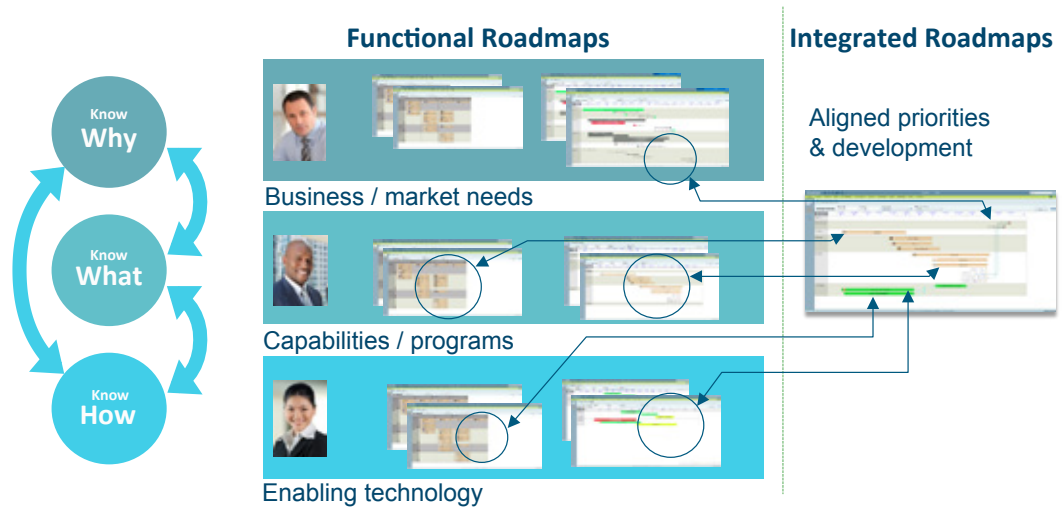
-Gartner Research

### Composite Roadmaps

A composite roadmap is an integrated view of all roadmaps across the common element of time<sup>1</sup>. The composite roadmap is an invaluable tool for understanding the relationships and dependencies across roadmaps. This methodology drives a strong connection between strategic intent and execution because key stakeholders are aligned with the context, facts, and decisions guiding future efforts.

Composite roadmaps identify top-down, fundamental strategies, and objectives relating to quintessential market opportunities. These big-picture, long-term views help business leaders assess beyond the immediate future and concentrate on the highest-value growth opportunities over time. This integrated strategy enables an organization to be more responsive and understand the true impacts of the market environment, technology, and product development.

**Figure 2:** Integrated roadmaps offer needed at-a-glance insight.



“I think the opportunity for integrative roadmapping is that you can really drive a much stronger connection between strategic intent and execution. It allows you to be more responsive — whether it’s plans that are changing, whether it’s the environment that’s changing — and how it impacts your current plans, or whether it’s your execution that is driving impacts to your plans.”<sup>6</sup>

-Iain King,  
Global Enterprise Service Business  
Leader, Sopheon

Composite roadmaps consolidate cross-functional strategic plans and help departments across the enterprise address their areas of expertise and get answers to their important questions.

### Strategy Alignment

Without support and buy-in from key stakeholders, a roadmap – no matter how accurate, detailed, or visionary – cannot truly be effective. It is imperative that the strategies discussed and decisions made are transparent to the necessary parties. The view of the future assembled by the roadmap needs to align strategically with how these important stakeholders see the future unfolding. By inviting these key stakeholders to participate in the roadmapping process, their knowledge and perceptions offer useful insights while the necessary task of attaining support is achieved.

### Roadmapping in the Real World – Use Case Scenarios

Roadmaps define clear communication and relationships across products and suppliers, and within corporate strategies. Stakeholders can view role-based data representations 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 findings, merger and acquisition resolutions, and even end-of-life or divestiture determinations. 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.

For example, Corning, a leading diversified technology company, focused on entering new markets, but strategic planning across the organization had not been 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 niche-industries 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 pipeline.

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 computer 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.

As these examples demonstrate, roadmapping provides companies with a multidimensional view of events and other significant milestones as they are anticipated to take place. Corning was able to bring products to market faster. Motorola was able to save money by consolidating project resources.

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

## Develop a Cross-Functional, Integrated Strategy with Roadmapping

Strategic roadmapping helps organizations work toward creating a comprehensive strategic view that cuts across organizational structures, functional silos, departments and most importantly — time. Dynamic content is easily managed using a central repository for housing planning data. Because project plans are maintained centrally, whenever there is a change in a plan the software automatically generates an alert to stakeholders affected by that change, enhancing their ability to manage changing conditions.

The intent is to map-out realistic ways that a company can achieve their business growth goals. The end result is a healthy, vetted strategic roadmapping process that keeps the data actionable and sustainable as business dynamics shift over time.

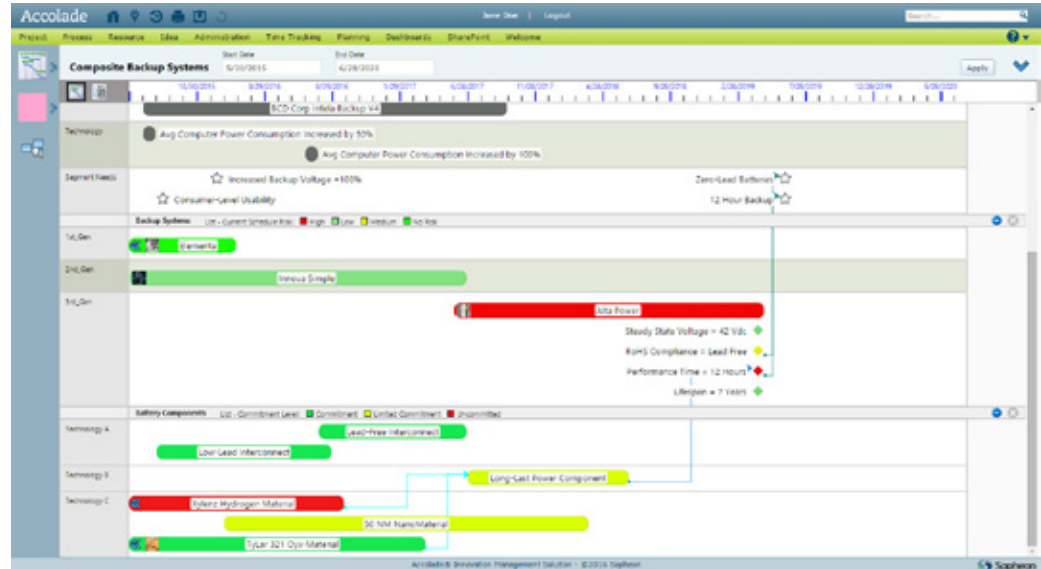
## Roadmapping with Software

While the business value associated with strategic roadmapping is substantial, the scope and complexity of managing so much data without software is daunting and impractical. Some organizations begin strategic roadmapping using sticky notes on a wall, Microsoft® PowerPoint®, Word®, and/or Excel®. However, the ever-changing nature of roadmapping quickly makes these workarounds unmanageable, hard to communicate to stakeholders, and very difficult to recreate, re-use, or repurpose.

“Teams accomplish more by understanding the context of where their solution will be used.”<sup>4</sup>

-Dr. Irene Petrick,  
Managing Director,  
Trendscape Innovation Group

**Figure 3:** Graphical roadmap visualizations enable understanding and manipulation of the linkages and dependencies between market, product and technology plans.



Go beyond the PowerPoint and sticky note environment and start utilizing dynamic planning information in real time, enabling critical decisions to be based on the most current information. Accolade® from Sopheon makes it possible for a number of stakeholders to work collaboratively on integrated roadmaps and reveal connections among ongoing projects and plans across vast enterprises.

With Accolade, dependencies and links between different roadmap elements across time are quickly built in the intuitive interface. For instance, the relationship between product development projects and market-specific needs can be linked, while pulling in the technology roadmap to see how it effects the product and market roadmaps, highlighting the impact technology plans have on the ability to bring products to market.

## Confidently make the right innovation investments for today, tomorrow and beyond with Accolade:

- Define innovation plans and roadmaps designed to deliver business results, increasing the success rate of strategic initiatives.
- Share real-time product and technology roadmaps with distributed teams, business units, and suppliers to reduce business risk and drive broad participation in the planning process.
- Increase input, collaboration and buy-in across functions, while reducing the disruption to those that provide input to plans.
- Integrate long-term plans across the business.
- Anticipate and plan for market and technology developments that will impact current and next-generation products.
- More accurately forecast future product plans and align project selection with corporate goals.
- Tightly link day-to-day operational activities with strategic growth initiatives.
- Create powerful integrated views of composite roadmaps. This enables teams to work across functions to gain agreement on direction and make long-term plans a reality, giving stakeholders the confidence that investments align with future growth plans.
- Streamline, automate and visualize real-time roadmap data.



The ability to manage and define these roadmaps empowers management to develop “what-if” scenarios to plan for multiple projections and adaptations of resource allocation. For example, if a certain project isn’t funded the impact downstream becomes visible, pinpointing the effects this decision has on the organization’s ability to deliver what the market needs. Furthermore, it becomes painless to develop different scenarios of investments and then compare them as well.

Dig deeper into analytics with drill down capabilities, leveraging data across roadmaps so enterprises can ask and answer detailed questions. Customizable dashboards underscore where misalignments exist. Business leaders can assess the landscape with a wide lens from the top of the organization and pinpoint where there is a gap. Once identified, the business leader can investigate a business unit to further explore the discrepancy. Management can see which brands or product lines are falling short, which strategies are not delivering, and dive all the way into the specific projects to understand why the forecasts predict falling short of desired objectives.

Accolade helps business leaders do the planning work required before committing to portfolio investments. With an easy-to-understand visualization of prioritized customer needs, windows of opportunity, growth opportunities, key relationships, and dependencies represented, Accolade empowers users to present findings and decisions to management from within the software. Gaining buy-in is easier when business leaders have confidence that decisions, big or small, are aligned with company priorities; plus, think of all the time gained no longer prepping for presentations in PowerPoint!

## Take the Next Step Towards Enterprise-Wide Strategy Alignment

The big-picture, long-term view roadmapping offers help business leaders stretch their thinking beyond the short-term and focus on those market needs of highest-value for growth opportunities in the future. With the ability to see curves in the road ahead, enterprises can create a steady stream of high-value product and process innovations that get to market on time and ahead of the competition. Regardless of specific time horizons, roadmapping as a business process to develop strategic roadmaps is the proven approach for success.

Get started:

- [Contact Sopheon to discuss how Accolade can help your company excel in strategic planning \[http://budurl.com/gp6r\]](http://budurl.com/gp6r)
- [Download the Top 10 Reasons to Roadmap eBook \[http://budurl.com/cb8z\]](http://budurl.com/cb8z)
- [See Accolade’s robust roadmapping capabilities \[http://budurl.com/qflu\]](http://budurl.com/qflu)
- [Watch our 3-part Roadmapping Series on-demand \[http://budurl.com/9jaa\]](http://budurl.com/9jaa)

## Reference Notes

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- 3 “Customizing Roadmapping,” Research Technology Management, Vol 47, No. 2, Phaal, Farrukh, and Probert, 2004
- 4 “Roadmapping Series: The Power of Problem Finding & Storytelling,” Sopheon & Trendscape Innovation Group Webinar – 29 Oct. 2015
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## About Sopheon

Sopheon partners with customers to provide complete Enterprise Innovation Performance solutions including software, expertise, and best practices to achieve exceptional long-term revenue growth and profitability.

Sopheon’s Accolade solution provides unique, fully-integrated coverage for the entire innovation management and new product development lifecycle. For the first time, businesses can access a single source of the truth across Strategic Innovation Planning, Roadmapping, Idea and Concept Development, Process and Project Management, Portfolio Management, and Resource Planning.

Sopheon’s solutions have been implemented by over 200 customers with over 60,000 users in over 50 countries, including industry leaders such as BASF, Covestro, ConAgra Foods, Electrolux, Honeywell, Northrop Grumman, P&G, PepsiCo, and Samsung.

For more information on Sopheon and its software and service offerings, please visit [www.sopheon.com](http://www.sopheon.com)



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