Successful innovation management requires a deep and thorough understanding of supplier products and plans. Many enterprises focus internally and may not understand the value that suppliers could bring to innovation. Tomorrow’s market leaders will be those that extend beyond their organization to create a supplier network that increases their ability to innovate. Embracing a formal, collaborative roadmapping process is required in building a sustainable innovation network.

Enterprises continuously look to their suppliers to become more competitive. Reducing cost, improving quality, shortening lead times and providing just-in-time inventories are just a few of the ways suppliers have added value. While improvements to the production link in the value chain are well understood, the formal inclusion of suppliers to the innovation value chain is perhaps overlooked. So how can suppliers make the enterprise a stronger innovator? This paper addresses this question, developing the concept of an innovation network.

Supplier Value

In entering this discussion, it is important to consider the following generalizations:

- Products are becoming increasingly complex.
- Supplied components often comprise up to 70% of product cost.
- Knowledge and technology are advancing at an exponential rate.
- Underlying technologies are often not understood by the enterprise.
- Enterprises must often maintain a reliance on a few critical technology suppliers.

Almost every enterprise recognizes its dependency on suppliers to remain competitive. In addition, if suppliers provide up to 70% of the product, does it not follow that suppliers may be able to substantially increase an enterprise’s ability to innovate?

Consider the situation in which the enterprise learns of the technology plans of a key supplier, and based on this knowledge, revises its own R&D plans in order to launch a product upgrade sooner than planned. Or better yet, launches an innovative new product line enabled by planned supplier technologies.

Suppliers may be able to substantially increase an enterprise’s ability to innovate.

What about obsolescence? Redesigning a product can be costly. Or, consider developing a losing product in which development requires significant investment. Developing the wrong product may threaten the viability of a business unit, or even the enterprise. Perhaps obsolescence could have been avoided with foreknowledge of
supplier product and technology plans. So, the question becomes, “Why rely on internal innovation alone, when knowledge of supplier innovations can be leveraged?”

The Gartner Group maintains that “leading enterprises will have a dual focus: embrace the innovations of others and drive the marketplace with their own innovations.” ¹ Elsewhere, this dual focus was discussed and four types of successful innovation managers were defined² – Leaders, Opportunists, Competitors and Adopters – with the differentiator being how well they were able to capture the economic value of their own innovations or those of others.

**The Innovation Network**

Few enterprises are strictly one type of innovation manager; rather, they capture value from both internal and external innovations to some degree or another. The ability to create and maintain this “dual focus” depends on the extent to which: 1) the enterprise adopts this philosophy, and 2) its innovation management process supports this objective. Leading innovation management processes must therefore be designed to capture value by adopting and developing the innovations of others, beginning with suppliers.

Creating this dual focus with suppliers is best realized by developing an innovation network (Figure 1) – a collaborative network unique to each enterprise, comprised of the enterprise, its suppliers and its partners. Enterprises that develop an innovation network are better positioned to capture value from the innovations of their suppliers and partners.

With supplier collaboration, product evolution can be better planned, and new product enhancements can be envisioned. Supplier collaboration is especially powerful when feedback is possible in the advanced design phase. This can allow the architecture of the product to better support planned enhancements. In this way, the innovation process becomes more continuous in nature, rather than discrete. New products or enhancements to existing products can be released on a more regular basis, with better timing to the market demand. As the connectivity to suppliers becomes stronger, development costs and the time-to-market can be reduced.

**Enterprises that develop an innovation network can capture value from the innovations of their suppliers and partners.**

So far, this discussion has emphasized the value that the innovation network brings to the enterprise; however, suppliers and partners benefit as well. The innovation network

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² “Roadmapping Continuous Innovation”, Innovation in the New Millennium, ICFAI, 2003
creates a win-win opportunity for all parties. Specifically, intermediate suppliers become more successful in developing products and technologies that become incorporated into the end product and delivered to market.

![Image](image_url)

**Figure 2. Transforming the Supply Base into an Innovation Network**

The innovation network transforms suppliers into innovation partners (Figure 2). The relationship is fundamentally changed. The relationship, which previously focused on buying and selling current products, now focuses on market strategy and the value that each brings to an innovation partnership. Instead of an adversarial relationship that is driven by a perspective that economic value can only be transferred between the supplier and buyer, the relationship is open and collaborative. This philosophy transforms the zero-sum game into a win-win opportunity for all involved. Relationships are viewed as a continuous source of value. Procurement is an integral part of innovation value chain, not a one-period, zero-sum game. The attributes of the innovation network are contrasted to the traditional supplier view in Figure 3.

<table>
<thead>
<tr>
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<th>Traditional Approach</th>
<th>Innovation Network</th>
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<tbody>
<tr>
<td>Relationship</td>
<td>Supplier, guarded</td>
<td>Partner, open</td>
</tr>
<tr>
<td>Communication</td>
<td>One-way, infrequent</td>
<td>Two-way, continuous</td>
</tr>
<tr>
<td>Focus</td>
<td>Sales-focused</td>
<td>Strategic, long-term</td>
</tr>
<tr>
<td>Innovation Activities</td>
<td>Separate</td>
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<tr>
<td>Value basis</td>
<td>Zero-sum game</td>
<td>Win-win opportunity</td>
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**Figure 3. Innovation Network Attributes**

**Innovation Network Managers**

The successful innovation manager can be defined as the enterprise that captures value from internal and/or external innovations. The innovator does not always capture the

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3 “Roadmapping Continuous Innovation”, Innovation in the New Millennium, ICFAI, 2003
value of the innovation. Therefore, successful innovation management occurs when an enterprise captures the value related to internal and/or external innovations.

The successful innovation network manager is one who enables the enterprise to develop innovations that capture more economic value through the network of suppliers and partners. Successful innovation network management places significant requirements on the enterprise that are highly dependent on the form of innovation and the degree to which the enterprise seeks to manage external innovation.

The innovation network manager views suppliers as a critical element of the enterprise’s innovation value chain.

The innovation network manager views the network as a critical element of the innovation value chain. The network manager understands that the innovation capacity of the enterprise is not constrained by the internal capabilities, technologies, processes, finances of the enterprise, but by that of the network. Harnessing the capacity of the network requires focusing its resources on the enterprises objectives.

Innovation Network Behaviors

The network manager works to develop and mature the network. To be successful, he or she must develop five essential behaviors within the innovation network. These five behaviors directly affect the network’s effectiveness. In some ways, the behaviors indicate the maturity of the innovation network and can is some respect be viewed as stages of network maturity. These behaviors are greatly dependent upon the degree of integration and the strength of the relationships that can be cultivated and developed within the network. The five behaviors are: 1) sharing, 2) influencing, 3) aligning, 4) collaborating, and 5) performing.

Sharing. Developing an innovation network begins with establishing a flow of information within the network. For the innovation network to be most effective, information should flow freely. Enterprises should share their vision for future markets with suppliers, and ask how suppliers can help fulfill this vision by becoming a part of it. An enterprise can ask suppliers for their view of future markets and how the supplier sees its position. Most often, information shared is proprietary and should be protected by nondisclosure agreements between the enterprise and its supplier or partner. Trust is critical for promoting sharing.

Influencing. Once sharing has started, the enterprise and its suppliers can influence each other’s technology and product plans. Influencing the plans of suppliers can bring tremendous value to the enterprise by focusing the supplier’s resources on those projects of most value to the enterprise. The supplier’s influence on the enterprise is no less important. Influence is impossible without sharing.

Aligning. Aligning occurs when influence is strong enough to justify a major redirection in supplier or enterprise plans. This often requires sharing of marketing and business development information for the other party to understand and accept the business case or vision to which it is aligning. Often it involves a redirection in vision, business objectives, product plan, technology
plan and investments. It is at this point that economies of scope and synergies begin to appear.

**Collaborating.** Once aligning is present, the network has a set of common objectives and values, and collaboration can begin. Network collaboration occurs when the network operates with a common set of objectives. Network members begin operating as a team. This brings a level of commitment and ownership from all parties. The most advanced forms of collaboration are present when strategic planning and business development begin with network participation, initiated by any network member. As many know, this behavior is often difficult to achieve within the enterprise. Achieving this behavior within the network is an even greater challenge.

**Performing.** Once collaboration is present, performing can begin. Performing occurs when the network becomes effective in producing innovation as a product of an aligned and collaborative effort. A performing network creates and captures economic value that otherwise cannot be created and captured by members alone.

**IT-Enabled Roadmapping Process**

An IT-supported roadmapping process enhances and accelerates all five essential behaviors – sharing, influencing, aligning, collaborating and performing – accelerating the maturation of the network.

Roadmapping is the process of capturing information and knowledge for presentation on a timeline. Roadmaps can relate to business vision, objectives, strategies, market requirements, product or service plans, technology plans and capability plans. An enterprise-wide roadmapping process creates links between these various roadmaps, aligning technologies to products, products-to-market requirements and markets to strategic objectives (Figure 4).

The Gartner Group points out that “every enterprise needs a process to track innovations to determine: 1) their applicability to the business, and 2) if and when to implement.”

Embracing a formal roadmapping process supports these two important objectives.

Roadmapping is becoming a required competency of successful innovation managers. Enterprises that master it will be capable of systematically capturing the value of internal and external innovations. Without a formal roadmapping process, sustainable innovation is threatened. A formal roadmapping process can also be deployed across the innovation network to produce integrated roadmaps containing the plans of the enterprise and its suppliers.

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4 “Innovation: Management Process or Unmanageable Events?”, AV-15-0808, Gartner Group
As one can imagine, the task of aligning network objectives and developing a collaborative network is not a trivial undertaking. Collaborative information technology facilitates the rapid capture, organization and network-wide dissemination of supplier and partner roadmaps. These roadmaps can then be shared more easily and become integral elements of every network member’s internal roadmap.

Creating and capturing economic value beyond that of the network members alone requires the highest levels of alignment and collaboration. Embracing a formal, collaborative, IT-supported roadmapping process is required in building a sustainable innovation network.

**Conclusion**

Innovative enterprises understand the value of suppliers and their ability to increase the enterprise’s innovation capacity. Enterprises that develop an innovation network can capture value from the innovations of its suppliers and partners. Embracing a formal, IT-supported roadmapping process enhances and accelerates all five essential behaviors – sharing, influencing, aligning, collaborating and performing – accelerating the maturation of the network. Enterprises that adopt this approach will build an innovation network capable of continuous innovation.

About the author: Joseph M. Stopper has worked as a technology planner for Fortune 500 firms. He holds advanced degrees in engineering and is a graduate of the Yale School of Management.