

*January 2010*

# Conquering the Fuzzy Front End of Product Development

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**I**n high-tech supply chain strategy, successful innovation is at the core of how supply chain excellence is driven. With 46% of revenue coming from products launched within the last 12 months and an average product lifecycle of 20 months, new product development and launch (NPDL) is both the lifeline and the bane of the existence of high-tech value chains.

However, the nut that companies cannot seem to crack is conquering the fuzzy front end of the innovation process. In short, they have difficulty translating demand insights into product successes.

To answer the question of what is product success and who does it well, AMR Research recently surveyed 142 high-tech and electronics companies. Here are the results.

## **Current state: Full of opportunities**

The pace of change in high-tech supply chains is exponential. With the evolution of social media, digital content, globalization, and new possibilities from innovation, it's a steady drumbeat. The two greatest gaps in innovation success, according to our survey, are conquering the front end and driving these new ideas into commercialization success.

### *The fuzzy front end*

The largest problem in high-tech innovation processes is conquering the process front end (see Figure 1). High-tech companies struggle with translating customer needs into a shared product vision. Processes are

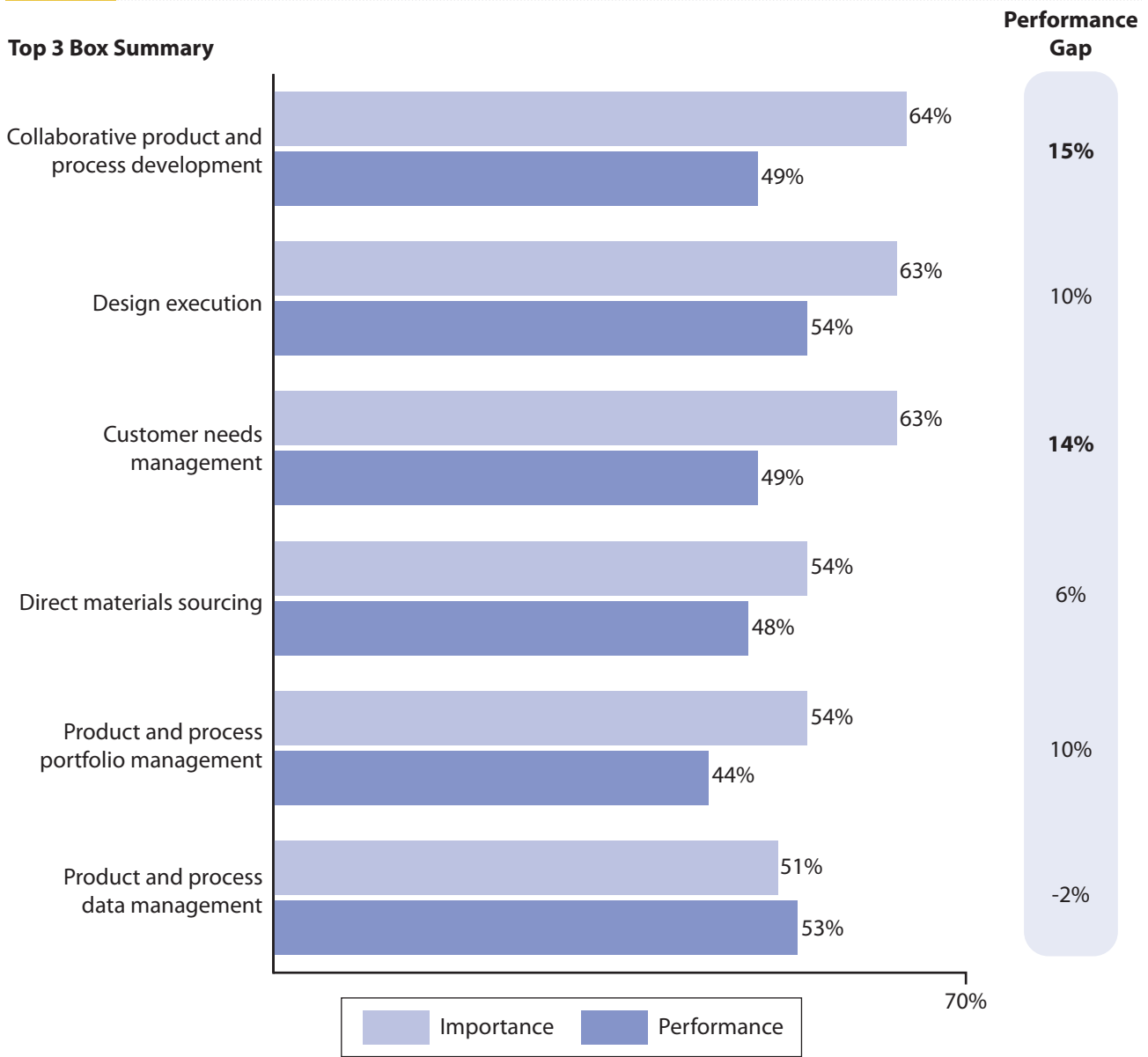
slow, with the translation of requirements inadequate. One contributor is the lack of workflow appropriate to the unstructured nature of this early phase of product innovation. In our survey, only 56% of companies surveyed had adequate workflow processes to drive collaborative product and process development.

### *Commercialization*

High-tech company responses showed lackluster performance in managing the full product lifecycle. Launch processes are three and a half months longer than desired.

The top three issues that hamper commercialization, or bringing a concept successfully to market, are control of the schedule to deliver the product on time, reliability of processes to control cost and price, and reliability in scale up or commercialization processes. Even for best-in-class companies, success rate in commercialization is only 55%. There's no question it remains an opportunity, but to our surprise, designing processes to speed time to market and improve reuse is on the backburner. For example, only 33% of raw material components are used in multiple platforms, according to our study.

**Figure 1:** Process gaps in new product launch



Q: How important are these processes to ensure successful new product design and launch?

(1=not at all / 10=extremely important)

How well would you say your company performs these today? (1=poorly / 10=extremely well)

n=142 high-tech manufacturing companies

Source: AMR Research, 2010

## Conquering the fuzzy front end

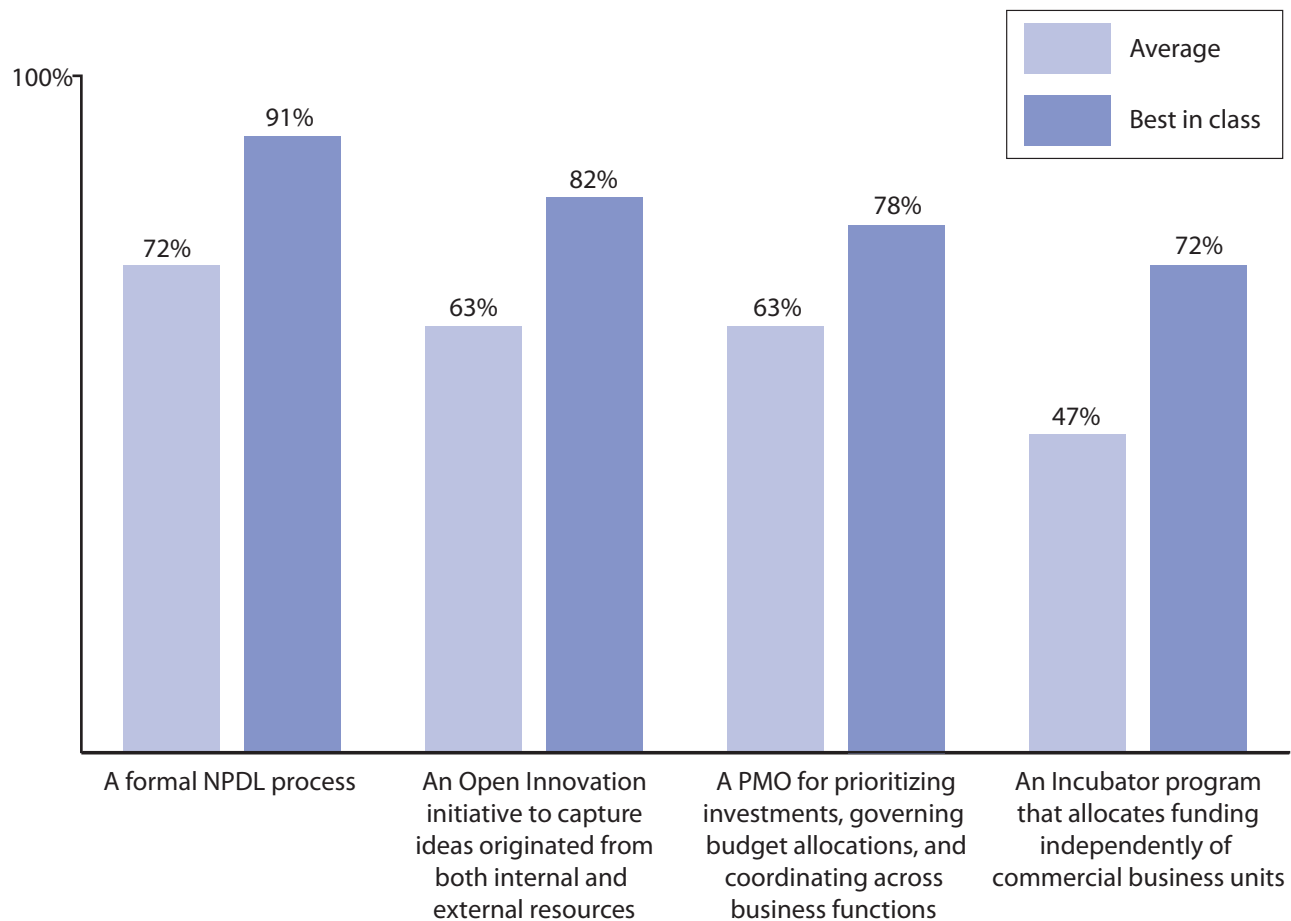
There are four practices that leaders use to take innovations from the fuzzy front end through to commercialization, improving the reliability of innovation processes.

Companies that perform the best in high-tech and electronics innovation processes rely on a combination of four, not just one single process, to drive success: a formal new product launch process, open innovation, a project management office, and an incubator program to fund new projects. The gaps in usage of these four critical elements are shown in Figure 2.

Although new product launch processes are mature, open design networks are newer. They're both differentiating and can have great impact. Companies that effectively use open design networks can cut three months from their new product launch cycles, with a 12% better success rate in product launch in the market. 76% of those surveyed have some participation in open design networks.

The drumbeat for new products is getting faster, the lifecycles are getting shorter, and success is the difference between a good and a bad year. With this in mind, can you afford to not address the processes that drive innovation success?

**Figure 2:** Programs in place to drive innovation excellence



Q: Does your company have any of the following in place to increase the speed of decision making in your new product design and launch process?

n=142 high-tech manufacturing companies

Source: AMR Research, 2010