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## INSIDE PRODUCT DESIGN & DEVELOPMENT

# Rapid market adoption for new product development

**F**or product development teams, rapid market adoption must be a priority, yet the critical components for achieving market success are rarely laid out in the design specifications.

“Time to market” (when a product ships) gets a lot of attention these days and the importance of speed cannot be overlooked. Yet an even greater source of risk for new products is “time to revenue” (when the product is sold). In fact, for new, innovative products, delays in the sales cycle can be more catastrophic than delays in the development cycle. For products to succeed, there are four barriers to market adoption that must be recognized and expressly addressed in the early stages of the product development cycle.

**The integration barrier:** More often than not, new products are used as a component of a complete solution and must be integrated with existing systems (even a simple cup has compatibility requirements with a range of temperatures, in-vehicle cup holders and dishwashing detergents). If the benefits of a new technology are too hard to achieve because of integration difficulties with technology or platforms in use at the customer site, sales will be lost. It is incumbent on the product design team to understand where the product will be used, details about likely interfaces, and how to create a path to seamless integration.

**The information barrier:** Sometimes test-driving a product before it is launched presents a challenge, either because the product does

not exist in a form that can be tried or because substantial investment is required to try it (installation in a production environment, for example). During the sales cycle, information about the product has to substitute for hands-on time with the product. Yet little time and attention is paid to creation and presentation of this critical information. Most engineers do not recognize or sign on to this role as part of the R&D process, but it can ultimately make the difference in closing a deal.

**The organization barrier:** When the sales and implementation process cuts across boundaries in a customer’s organization, the sales cycle becomes more complex. Purchase decisions will require committees, and consensus must be driven from people with differing agendas. An organic approach to product development “embeds” an understanding of the customer’s organization into the design process. Features that accelerate the sales cycle must be given high priority. The roles of influencers and decision-makers, and what product attributes are important to them, need to become familiar concepts to developers.

**The change-in-behavior barrier:** Asking customers to change their behavior or current way of doing business to realize the benefits of a new product or service can become a significant obstacle to product adoption. From the customer’s perspective, the product is “hired” to help them solve a problem. If solving the problem demands too great a change in how they do their job, they may conclude that the product doesn’t work. The product features are on target, the design specification has been met, yet there is no sale at the end of the day.

Plug-in electric hybrid cars provide a great example of the four barriers in action.

The technical integration difference is the addition of a large battery to a standard car. But

what about the integration at home where an outlet may not be readily available? What assumptions must be made about where the car will be plugged in? Will the buyer expect an “all-weather” retractable cord like an industrial vacuum?

What information needs to go out to consumers so they are ready to buy when the product hits dealerships. Before a test drive is available, what information will satisfy consumer expectations? Are conventional car specifications the right ones for comparisons with plug-in electric hybrids?

Fleet operators appear to be the type of organizations likely to adopt plug-in electrics, but their purchase considerations are far more complex than those of a single buyer. Different constituencies within an organization will focus on marketing, cost of operations, comfort and storage considerations. What features can be designed into the product to pre-empt these concerns?

Fuel economy claims for the new cars sound promising but what are the underlying assumptions about change-in-behavior for driving? Is it true that typical use for the plug-in electrics be less than 40 miles per day? Where do drivers with a long commute fit in? Or what about those that park on the street and can’t “plug-in” every night.

Rapid market adoption should be top of mind for developers of the plug-in electric generation of cars. Early focus on the four barriers identified above will surely help to speed up success. By addressing the four barriers early in the design phase, product developers can have a positive impact on both time to market and time to revenue.

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### GUEST COLUMN



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