## Goldense on R&D-Product Development

BRADFORD L. GOLDENSE | President Goldense Group Inc. (GGI) Needham, Mass.



## R U an Open Innovator?

roduct developers have been practicing make-versus-buy analysis for decades. Typically, it focuses on whether to outsource the manufacture of components or subassemblies already designed and developed in-house. However, since the early 2000s and the publishing of Open Business Models: How to Thrive in the New Innovation Economy by Henry Chesbrough, these make-versus-buy considerations have been moving upstream into design and development. This is what industry now refers to as Open Innovation (OI): Should our company invent a new feature our customers want, or has another company already done it? Can we acquire it or license something that already exists that meets our need? Is partnering or allying with the competitor the best alternative if they have something close that does not exactly (yet) meet our needs? Or, should we make the investment and incur the likely time-to-market penalty for doing it all ourselves from scratch? What is the best way to realize our design intent?

OI is not quite make-versus-buy for scientists and design engineers, but it is highly analogous. As OI overcomes the resistance to adapting a not-invented-here idea, it will become easier to access and act on ideas from outside the company. As these practices grow and mature, product developers will begin making different decisions when presented with the design challenges any new product presents.

Many companies are beginning to wade into the waters of OI. The idea is in its infancy and clearly there are mixed results across industries. Only **Procter & Gamble** has publicly touted its financial successes arising from open approaches. As of now, there is little in the way of infrastructures within companies that let scientists and engineers quickly locate appropriate alliances or find ready-to-go plug-and-play solutions. The train is on the tracks however. GGI took a snapshot of industry's evolving capabilities in 2013.

Like any new market opportunity, demand must reach a certain level before suppliers are willing to invest in developing a solution. And as with any new market, different suppliers will offer different solutions. For OI, the offerings are evolving. They include making it easier to access university-based research and prototyping, bartering intermediaries, and outright brokers who try to put buyers and sellers of solutions together.

OI approaches will certainly grow over time. And some of the current categories will become more refined and be split up into separate approaches in the future. For instance, "Innovation Intermediary Firms" will likely evolve into those that specialize in identifying companies with components that already have part numbers, versus companies that just have intellectual property rights but no part-numbered components. Boutique intermediaries may specialize in one area and eventually full-service intermediaries with one-stop shopping.

The demand for OI hit critical mass over the past decade. A new industry to service this demand is developing. There is an analogy between OI and social media. The advent of social media was not without resistance. It had to overcome enculturated values dating back to the Pony Express in the 1800s. People had gotten very used to receiving their information in a certain way, a time cushion for sending to receiving, and another time cushion for their reply. NIH also has deeply seated values, but these too will be overcome in the years ahead.

Adopting OI doesn't mean giving up on your quest to consistently innovate and design from scratch. There will never be a situation where an employer does not value that talent. But the OI marketplace may help you save the day when pressed with short time-to-market goals and a lack of available expertise or capacity in a busy shop

BRADFORD L. GOLDENSE, NPDP, CMfgE, CPIM, CCP, president of **Goldense Group Inc.** (GGI) (www.goldensegroupinc. com), has advised over 300 manufacturing companies on four continents in product management, R&D, engineering, product development, and metrics. GGI is a consulting, market research, and executive education firm founded in 1986.

86 03.06.14 MACHINE DESIGN