

## **\* The Great Recession Changed R&D Operating Environments \***

by  
Bradford L. Goldense

In the July 7, 2014 issue of 2PLM, the scope and focus of recent research on R&D Operating Environments, Organic Innovation, Open Innovation, Intellectual Property, and the Top Corporate Metrics used to measure R&D and Product Development was highlighted. In this second of a six part series, selected GGI findings on R&D Operating Environments will be discussed.

The study, entitled the "2014 Product Development Metrics Survey", was conducted by sending questionnaires to a wide range of companies developing products throughout North America. Participating companies had headquarters throughout the Americas, Europe, and Asia, but their response was for North American R&D-Product Development operations. Complete data sets were received from 200 companies. Consumer, industrial, medical, chemical, and automotive/vehicular products were the top respondent industries. Participants completed 31 questions across the five primary research subjects. The research period was September 2012 to October 2013. The results were published March 3, 2014 in a 138-page report. This research is statistically valid and provides a Margin Of Error for each research question.

Four R&D Operating Environment areas were researched: R&D-Product Development Strategy, Importance of Innovation, Centralization vs. Decentralization, and Facility Deployment. The first two of these areas were researched thoroughly in our 2008 study enabling a pre/post great recession analysis.

R&D-Product Development Strategy: True innovators don't change much, they are always about 5% of corporations. Platform-Derivative, Balanced Portfolio, and Follower/Extender make up the rest. When Platform strategies began in the early 1980s, they were new. By 2008 they had become the predominant strategy, overtaking Balanced Portfolio. In 2014, there was a large fall in Platform strategies; likely because short term thinking had to prevail in challenging economies. Balanced is again predominant. There was also a slight increase in Follower/Extender companies. "Fast-Follow Innovation" seems to be a strategy on the rise and may warrant a separate research category in the future.

Importance of Innovation: Since the works by Moore, Christensen, Chesbrough, and others in the mid-1990s and early 2000s, innovation has been on a steady rise as a corporate priority. Each time we have examined "corporate zest for innovation," it has increased. There is clearly great innovation momentum, as will be evidenced by the remaining articles in this series, but it is perhaps safe to say the crest of the wave of zest has passed. In 2008, almost half

responded that innovation was "much more important" than five years previous. In 2014, only twenty percent said much more than five years previous. Not to worry though, ninety percent still say innovation importance has not changed or is still more important than it was five years ago. The tamer 2014 response likely indicates the embedding of innovation as a day-to-day priority, as happened with lean and six-sigma and other culture change improvements that lasted because of their merit.

Centralization vs. Decentralization: Companies with longevity go back and forth over the decades in their basic approach to management. In many parts of industry the swing is predictable in 7-10 year cycles. Globalization necessitated decentralization because local geographies inevitably gained say in many matters. GGI researchers felt the lasting economic challenges, coupled with the settling-in of global organizations for a decade or more now, likely would lead to some streamlining and belt tightening. We sought to understand the degree to which it occurred. Respondents were asked to contrast whether their R&D-Product Development practices today were more centralized or decentralized than their practices of five years ago. We found movement in both directions. About a quarter of companies have become less centralized, while near forty percent have become more centralized. A number of studies on global business practices published in the first decade of this century indicated that a more centralized philosophy increases the likelihood of positive financial performance. Corporations now seem to have a trend in that direction.

Facility Deployment: A change in central versus decentral management philosophy may or may not be indicative of whether a company has deployed additional or consolidated existing facilities in the same period. During the globalizing period, R&D laboratories and manufacturing plants were deployed in most new operating geographies, not just sales offices. In line with the hypotheses of our previous question, we sought to understand what had happened to physical facilities in this same time frame. Almost half of companies remained unchanged, but three times as many companies increased their number of physical locations compared to those that reduced them.

SUMMARY: Corporations have more conservative strategies and product portfolios in 2014 than they did in 2008. Corporate zest for innovation is also more reigned-in, but is still a top corporate focus. More companies than not are increasing the level of centralization of their management approach, while at the same time growing the number of physical R&D-Product Development centers.

*For more information about Goldense Group Inc.'s (GGI) R&D, Product Development, Innovation, and Metrics research approach and topics, ongoing since 1998, please visit their [research portal](#). Licensed pdfs of the 2014 findings and other research are available in GGI's iStore or through regarded distributors including Baker & Taylor and MarketResearch.com.*

*Bradford L. Goldense, NPDP, CMfgE, CPIM, CCP, president of Goldense Group Inc. 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. Brad writes a monthly column in Machine Design magazine for product creation professionals.*