

*** New Research on Product Development and Innovation Management ***
- Top Metrics Used By Corporate R&D Organizations -

by

Brad Goldense and Ervin Kule

In the September 8, 2008 issue of 2PLM we highlighted recent research on product development and innovation processes, tools and top corporate metrics by Goldense Group, Inc. In this issue we present the final article in series of six articles, which focuses on results in the area of "Top Corporate Metrics Used by Industry for R&D."

The survey investigated "Corporate R&D Metrics" in corporations in order to explore management's measurement practices at the top level of R&D. Respondents were asked to report which metrics were "in use" in their company by choosing from a list of 88 commonly used R&D metrics. Replies to GGI's 2008 Product Development Metrics Survey were received from 209 companies across a range of industries including industrial and medical products, aerospace, defense, electronics, chemicals, and pure software companies.

"Corporate Metrics" measure R&D as a whole, across all activities combined. Project metrics, functional metrics and others are lower level activity measures. Some corporate metrics are "pure" overall measures like, "R&D Spending as a Percentage of Sales." The other type of Corporate Metrics are "rolled-up" measures. Rolled-up measures are mathematical aggregations of lower level metrics that occur in a number of places. A good example is the averaging of time-to-market across all projects, resulting in a composite measure like "Average Time To Market."

The number of Corporate Metrics in general use in R&D continues to rise over the decade GGI has researched it. In GGI's 2008 metrics survey the number of metrics surveyed was 88 compared to 33 in our first survey of Corporate Metrics in 1998. Our 2004 survey investigated 75 metrics. This steady increase over the years is only indicative of increased experimentation with metrics in the R&D sector. It is not indicative of the top metrics in use. Those have remained almost unchanged for a decade.

In the 2008 Survey, five metrics were used by more than 50 percent of respondents. "Total R&D Spending as a % of Sales" remains at the top of the list for the past decade with 79% of companies using it in 2008. The other Top 5 Corporate Metrics are "Total Patents Fixed/Pending/Awarded/Rejected," "Total R&D Headcount," "Current Percent of Sales Due To New Products," and "Number of New Products Released." Notable is that the metric that tracks new product sales is the "newest" R&D metric. It was first popularized by 3M in 1988 and has now risen to be used by 56% of companies, surpassing many of their metrics that have been around for decades. Based on GGI's consulting practice findings, it is not yet benchmarkable though. Every company calculates it differently, few with the best practice method.

The number of companies trying to get a better handle on lower level activities appears to be increasing. Seven metrics that are aggregated averages of lower-level activities have now risen above 15 percent industry penetration. Finally, a good number of metrics that had received "zero" scores in prior research we performed are now registering single digit percentages of usage. Industry appears to be experimenting with measures in search of ones that have more direct correlation with true outcomes.

In summary, the 2008 GGI Product Development Metrics Survey showed increased activity in Corporate Metrics usage and experimentation. The top metrics remained essentially unchanged, with a few more companies now measuring new product sales. Companies also appear to be increasing their tracking of lower level activities by making the investments to collect and mathematically analyze common metrics that most projects and functions track.

For more information about GGI's 2008 Product Development Metrics Survey, the research and the available report please go to GGI's website, <http://www.goldensgroupinc.com/>. To purchase reports with text and graphical analysis of the results, please go to http://www.goldensgroupinc.com/cgi/catalog.cgi?display_p355.

Bradford L. Goldense is President and CEO, Goldense Group, Inc. Ervin A. Kule is Manager of Market Research, Goldense Group, Inc.