PRODUCT DEVELOPMENT BESTPRACTICES REPORT

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CORPORATE R&D METRICS: BAROMETERS OF PROCESS MATURITY

Did you know that less than 40% of companies in industry do not yet have a clearly defined set of metrics that they use *to manage overall corporate results*? It is therefore not surprising to find out that less than 40% of companies have a clearly defined set of metrics that they use *to manage R&D*. Based on GGI's 2000 R&D Metrics Survey of 120 leading companies, the actual numbers are 36% and 37% respectively. For the companies that do consistently report a defined set of measures, the average is 16.02 metrics in the corporate set and 6.29 in the R&D set.

Did you know that there are only four to six metrics that could be considered to be commonly defined and in common use across industry R&D organizations? The degree of commonality of measures is currently quite low. The results of GGI's 1998 survey of 190 companies indicated that six measures were used by approximately one half or more of the respondents. In GGI's 2000 survey, only four measures were used by at least 50% of the participants.

1998 Survey Results*		2000 Survey Results*	
R&D Spending As A Percent of Sales	[78%]	R&D Spending As A Percent of Sales	[66%]
New Products Released	[68%]	New Products Released**	
Number Of Projects In Backlog	[61%]		
Total Products Released/Supported	[54%]		
Total Patents Filed/Pending/Awarded	[51%]	Total Patents Filed/Pending/Awarded	[50%]
Sales Due To New Products	[48%]	Sales Due To New Products	[50%]

* Private companies, approximately 33% of industry and 33% of survey respondents have less reporting requirements. ** GGI indvertently omitted this choice from the survey. Assume it would have received a similar ranking as in the 1998 survey.

After allowing for some survey design and/or respondent error (such as why respondents in 2000 did not check off the "Backlog and Released/Supported" metrics which they are surely keeping) the big picture still holds true. Just a handful of metrics are consistently used by more than 50% of industry. What's more, the metrics that could be considered to be in common use across industry are essentially those that are *required* by federal financial or regulatory agencies. Only the "Sales Due To New Products" metric, which was created from within industry, has grown to become a commonly used metric.

If one goes back to the 1930s, the same situation existed in all functions. Finance was the first function to attain a common set of metrics. Much of this was due to SEC and government legislation to regulate financial reporting. Within a few years, all companies were reporting on the same measures and using consistent definitions of these measures. By the end of the 1970s, through the forces of global competition, industry achieved great commonality in their reporting of the Distribution function. By the early 1990s, again through the forces of global competition, industry achieved great commonality in their reporting of the Manufacturing function.

During the next ten to twenty years, taking longer than either the Distribution or Manufacturing metrics maturation cycle, industry will achieve a commonly used set of R&D metrics. Between

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now and then, metrics already in existence will either rise or fall in their popularity as industry achieves greater understanding of the metrics that are most highly correlated with R&D success. In addition, new metrics will emerge – such as the "Sales Due To New Products" metric. These new metrics will be the result of innovative thinking in companies as they strive to gain ever better productivity and control of R&D spending and activities. Little by little, these "new metrics" will get benchmarked between companies. Little by little, these new metrics will increase in terms of their common usage across industry.

Competitive advantage is created through better visibility of the future coupled with better control of today's business operations. R&D is certainly one of the areas that is a top priority for improved visibility and control. Metrics and measures are one of the key tools.

Currently, there are several government initiatives focused on improving or 'commonizing' the R&D metrics used by industry. As an example, the American National Standards Institute [ANSI] has an active program along these lines. Don't wait for the answer to arrive at your corporate doorstep, however. These types of initiatives – aimed at establishing "guidelines" – which do not carry the clout of the SEC or Treasury Department,

will still leave your organization having to make the decision on what To contact Brad Goldense metrics best suit your company. Waiting for the answer will not put your company at the front of the pack.^P_D

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