

PRODUCT DEVELOPMENT BEST PRACTICES REPORT

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THE LATEST ON PRODUCT DEVELOPMENT METRICS

Goldense Group, Inc. has released the findings of a study of Product Development Metrics conducted earlier this year. The study focused on industry systems for collecting and reporting product development metrics, corporate metrics, project metrics, and linkages between performance and rewards and recognition in product development.

Respondent Profile

The study was conducted by a mailed questionnaire. 6, 221 pieces were distributed, of which 197 were returned, a response rate of 3.2 percent, seven respondents were eliminated from the analysis as duplicate responses, leaving an analyzable database of 190 records. Two-thirds of the respondents were from public firms and one-third from private companies. The largest industry groupings were Medical Products (13 percent), Electronics (ten percent), Automotive (nine percent), and Industrial Products (seven percent). About one fifth of all respondents fell in the \$100 million to \$250 million bracket, with the next largest 'bucket' at \$1 billion to \$5 billion; the other 'buckets' shared about equal percentages of respondents.

Metrics Systems in Industry

One-half of our respondents reported that "Monthly" was the periodic interval which best described the visibility of metrics, with the next highest percentage (22 percent) responding "Quarterly." Nearly one-half of the respondents claimed that the best description of the state-of-architecture of their metrics system was "a number of unlike systems" or "unlike systems unevenly applied and utilized,"

Fifty-four percent of respondents described their metrics system as a "Manual System," with about 39 percent describing their system as "Partially Automated." A mere seven percent described their system as "Fully automated." The largest percentage of respondents (21 percent) said the "VP Product Development/Engineering" was the "owner" of product development metrics. "A Designated Person within Product Development/Engineering" was the "administrator" of metrics for nearly half of the organizations in the study.

State of Corporate Metrics

- In terms of management time, the distribution and emphasis of metrics within metrics systems were as follows: Corporate/Overall = 21 percent, Project = 46 percent, Functional = 19 percent, Improvement = 12 percent, Other = two percent.
- The top five metrics in use were "R&D spending as a percent of sales," "New Products Completed/Released," "Number of Approved Projects - Ongoing," "Total active products supported," and "Total patents filed/pending/awarded".
- The *least* tracked metrics were "Current-year percent sales due to total technology licensing," "Average new products released per engineer or developer or scientist," "Total industry standards planned/pending/achieved" (tie between these last three), "Average profits per engineer or developer or scientist," "Average new product profits per engineer or developer or scientist," "Current-year percent sales due to total royalty income," "Average new product sales per engineer or developer or scientist."

State of Project Metrics

A healthy majority of respondents (66 percent) claimed that at least "some" standard measures are used across all projects. Virtually all of these same respondents claimed that these standard mea-

asures had changed over the last ten years. The largest percentage of respondents (45 percent) claimed that their company reviews projects both at specific predetermined milestones and on a periodic basis as well.

There was no definitive finding regarding the use of cross-functional, post-launch product reviews. Among those who *did* do such reviews the vast majority (80 percent) claimed that they did “Targeted project/product reviews.” The further from launch, the fewer targeted reviews were conducted, with 2.45 being the average number of post-launch reviews per project/product.

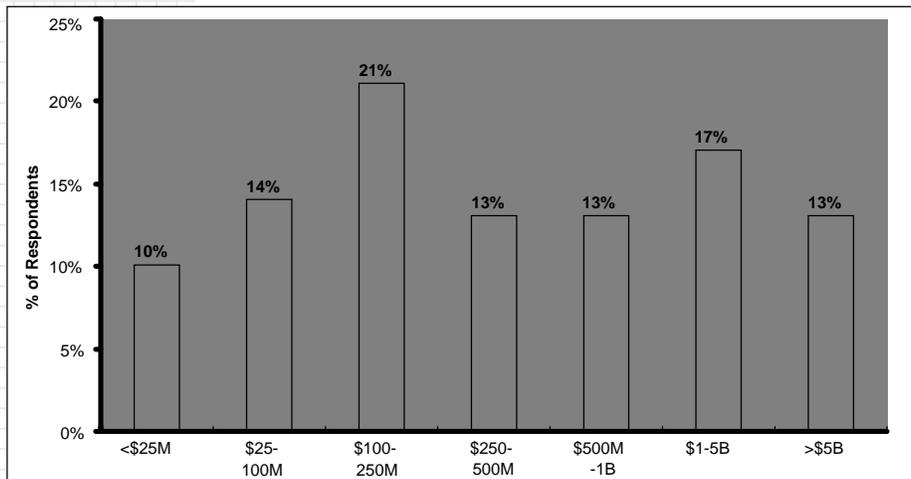
Examining specific Project Metrics and how they are tracked throughout the product development cycle, the study found that:

- “Target Product Cost,” “Project Schedule/Time-to-Market,” “Target Product Price,” “Target Gross Margin percent,” and “Capital” were the metrics most often used by our respondents.
- “Breakeven Time,” “Total Product Contribution,” “Lifetime Sales Volumes,” “Time-to-Profit,” and “RONA or Other Asset,” were the least tracked metrics out of a set of the 20 standard metrics for industry.
- “Project Schedule/Time-to-Market,” “Schedule Slip Rate,” “Target Product Cost,” “Development,” and “Product Requirement Changes” were the five metrics tracked most consistently throughout the product development cycle. Each of these metrics was tracked, on average,

three times or more during the development cycle.

Linkages of Performance To Rewards And Recognition

The likelihood of a link between compensation and performance in launching new products is directly proportional to the level of the individual within the organization — the higher up the person, the greater the link. This is most pronounced in the engineering function. For a large majority of respondents (69 percent), team performance review forms are not routinely used during or at the end of projects to review team



QUESTION: A5. Sales revenue over your last full year: (Check the one that best applies.)

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member/leader performance. Seventy percent of respondents reported that team performance review forms are not a factor in annual compensation awards.

Respondents were fairly evenly split when it came to handing out *ad-hoc* financial awards for excellence in launching product development projects: 54 percent did give such awards, while 46 percent did not. However, a significant majority of respondents (61 percent) claimed that there were *ad hoc* financial awards for functional and/or technical achievements.

Seventy percent of respondents said non-monetary recognition techniques were also used to reward new product development excellence. Among the various forms of non-monetary recognition suggested by the questionnaire, only the form described as “written, external industry publication” did not seem to be used. The others were used by large percentages of the respondents.^{P_D}



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