

MANAGEMENT ROUNDTABLE'S TWELFTH ANNUAL CONFERENCE ON

Product Development Metrics: *Increasing Return on Innovation, Achieving Organic Growth*

Receive methods,
measures and
implementation
guidance to make
innovation tangible —
and profitable

“The only
worthwhile
innovation
is profitable
innovation.”

James Andrew and Harold Sirkin,
*Payback, Reaping the Rewards
of Innovation*



NOVEMBER 5–7, 2007 • CHICAGO, ILLINOIS

Keynote Speakers



James Andrew
Senior Partner & Managing
Director, **Boston Consulting
Group (BCG)** and co-author
of *Payback: Reaping the
Rewards of Innovation*



Bradford L. Goldense
Founder & CEO
Goldense Group Inc.



Larry Keeley
President & Co-Founder
The Doblin Group



Don Reinertsen
President, Reinertsen &
Associates and author of
*Managing the Design
Factory*



Dr. Dean Spitzer
Performance Measurement
Thought Leader, **IBM**
Almaden Services Research
and author of *Transforming
Performance Measurement*

Featured Case Presenters



Dr. Raj K. Aggarwal
Vice President,
Global Technology
ROCKWELL COLLINS



Donald M. DeLauder
Executive Director,
Product Innovation &
Advanced Development
MEDRAD



Rich Gildersleeve
Vice President, R&D
DJO, LLC



Guy M. Merritt
Director of Engineering,
Broadband Products Group
TELLABS



Rich Wykoff
General Manager,
New Business Initiatives
INTEL

Product Development Metrics: *Increasing Return on Innovation, Achieving Organic Growth*

NOVEMBER 5-7, 2007
CHICAGO, ILLINOIS

Why this conference is important — metrics for turning new product concepts into profits

While the corporate push for innovation continues, questions are beginning to surface about payback:

- ⊙ How much should be invested in R&D — especially if spending more doesn't necessarily translate to market success?
- ⊙ How do you predict the potential value of early-stage projects? Just because an idea is revolutionary doesn't mean it should be funded — how do you decide? How do you distinguish between truly new-to-the-world ideas and incremental innovation?
- ⊙ How do you assess technology development and/or business development opportunities; determine which will lead to long-range sustainable growth?
- ⊙ How do you balance risk and reward across an 'innovation portfolio'?

Though a recent Boston Consulting Group Survey on Innovation revealed that companies are concerned with return on investment, it also showed

that innovation delivered high long-term stock-market performance for the 25 most innovative companies (as defined by survey respondents); these companies were able to expand margins without sacrificing growth. Booz Allen Hamilton's "Global Innovation 1000" survey indicated that "high-leverage innovators" consistently outperformed their competitors over a five-year period while spending less on R&D as a percent of sales than their industry median. The research clearly indicates that investing in effective innovation pays off, but incrementally increasing R&D spending will not guarantee accelerated growth in revenues or profitability.

What makes the difference?

To explore how leading companies are assessing innovation opportunities to increase growth, profits and overall productivity, Management Roundtable's *12th Annual Product Development Metrics Conference* will focus on ***Increasing Return on Innovation, Achieving Organic Growth.***

“Throwing billions of dollars at R&D to produce more patents — a common measure of innovation success — doesn't translate into innovations that affect a company's bottom line.”

**Booz Allen Hamilton,
Global Innovation 1,000 Survey, 2006**

This highly acclaimed annual event, to be held November 5-7, 2007 in Chicago, brings together top innovation and product development thought leaders and advanced industry practitioners to discuss the most effective metrics and practices being used today. By participating you will come away with specific methods, dashboards, tools, and organizational approaches to ensure measurable impact on your company's bottom line.

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Who Should Attend

This conference is highly recommended for anyone charged with boosting innovation and return on R&D investment. It will be especially valuable to VPs, Directors and Managers of:

- Product Development
- R&D
- Technology Development
- Process Improvement
- Advanced Concept Development
- Innovation
- New Business Development
- Strategy
- Finance

To jumpstart implementation and facilitate organizational alignment, it is suggested that at least two members of your organization attend together, ideally at both the senior and project management level. Special rates are offered for groups (see page 15).

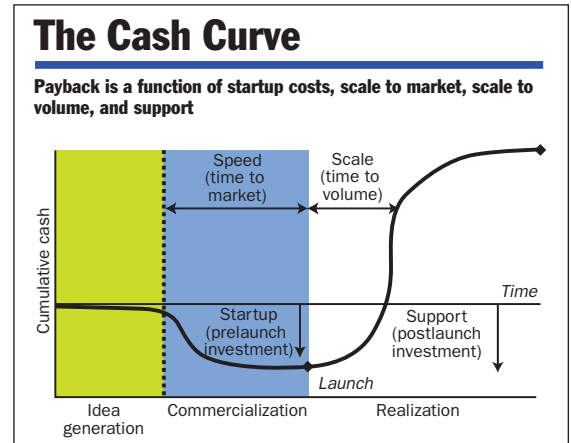
KEY DELIVERABLES

You will come away with methods, metrics and implementation guidance to make innovation tangible — and profitable.

Specific methods you will receive:

- ⊙ **The cash curve** — from *Payback*, co-authored by keynote speaker, James Andrew

The simple S curve plots the ROI of an innovative product, measuring the size and timing of a company's investment in developing a new offering, the speed with which the product is brought to market, and the product's scale — or time it takes to achieve projected market volume. The graphic forces a company to confront risk in a disciplined fashion and, ideally, move on if an innovation's curve is heavy on the cost and potentially low on the return.



Source: *Payback: Reaping the Rewards of Innovation*, Harvard Business School Press, 2007

- ⊙ **Sales Growth Leverage (SGL) metrics**
- ⊙ **R&D scorecard** that measures business impact, operational excellence, innovation, and external collaboration
- ⊙ **New, non-traditional metrics:** technology resource value-add time, knowledge capture, project benefit-to-cost ratio, intellectual property, portfolios, and more
- ⊙ **How to measure “flow”** in product development

Implementation Guidance:

- ⊙ Seven benchmarked actions that top management can take to increase innovation and productivity
- ⊙ A realistic action plan to apply and integrate new metrics and practices
- ⊙ Opportunity for one-on-one discussion with foremost experts
- ⊙ Full set of reference materials to share with others at your organization; follow-on materials and opportunity for ongoing discussion with peers from other companies

Product Development Metrics: Increasing Return on Innovation, Achieving Organic Growth

PRELIMINARY AGENDA

MONDAY, NOVEMBER 5, 2007

Pre-Conference Workshops

7:00 – 8:00	Registration and Continental Breakfast
Morning Session 8:00 – 12:00	A. Metrics 101: Best Practices and a Framework for Success , Wayne Mackey, Product Development Consulting, Inc.
Full Day Session 8:00 – 5:00	B. Linked Metrics Portfolio™ , Bradford L. Goldense and Timothy P. Kirby, GGI
12:00 – 1:00	Luncheon
Afternoon Session 1:00 – 5:00	C. Building the High Performance R&D Team , Wayne Mackey, PDC, Inc.

TUESDAY, NOVEMBER 6, 2007

Conference Day One

7:00 – 8:00	Registration and Continental Breakfast
8:00 – 8:10	Opening Remarks, Management Roundtable
8:10 – 8:30	CHAIRMAN'S WELCOME , Wayne Mackey, PDC, Inc.
8:30 – 10:00	KEYNOTE: Sometimes Things Change. . . Driving Effective Innovation with Curiosity, Courage and Confidence , Larry Keeley, President & Co-founder, Doblin Group
10:00 – 10:15	Refreshment Break

Measuring Business Impact for New-to-the-World Innovations

10:15 – 11:00	CASE PRESENTATION: Metrics for Technology Enabled Growth , Dr. Raj K. Aggarwal, VP Global Technology, Rockwell Collins
11:00 – 11:45	CASE PRESENTATION: The Evolution of Metrics to Guide & Assess New Business Investment , Rich Wykoff, GM, New Business Initiatives Group, Intel
11:45 – 1:00	Lunch

Shifting Your Metrics Mindset

1:00 – 2:00	KEYNOTE: Beyond Metrics and Numbers: Rethinking How You and Your Organization Measure Innovation , Dean R. Spitzer, Ph.D., Performance Measurement Thought Leader, IBM Almaden Services Research
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2:00 – 2:45	CASE PRESENTATION: Integrating & Measuring Innovation in the NPD Process , Guy M. Merritt, Director of Engineering, Broadband Products Group, Tellabs
2:45 – 3:00	Refreshment Break
3:00 – 3:45	CASE PRESENTATION: DJO's Metrics Journey: Shifting from Traditional to Non-traditional NPD Metrics , Rich Gildersleeve, VP R&D, DJO, LLC
3:45 – 5:00	KEYNOTE: Forget Conformance: Seek FLOW , Don Reinertsen, President, Reinertsen & Associates
5:00 – 5:15	DAY ONE TAKE-AWAYS , Wayne Mackey, Conference Chairman
5:30 – 7:00	NETWORKING RECEPTION

WEDNESDAY, NOVEMBER 7, 2007

Conference Day Two

7:00 – 8:00	Continental Breakfast
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Managing Your Innovation Portfolio for Maximum Productivity

8:00 – 9:15	KEYNOTE: Payback: What It Is, How to Measure It, and How to Get More , James Andrew, Senior Partner & Managing Director, Boston Consulting Group
9:15 – 9:30	Refreshment Break
9:30 – 10:45	KEYNOTE: Innovation Practices & Measures for Organic R&D Productivity , Bradford L. Goldense, Founder & CEO, GGI
10:45 – 11:45	EXTENDED KEYNOTE DISCUSSION SESSIONS
11:45 – 12:45	Lunch
12:45 – 1:30	CASE PRESENTATION: Metrics for Measuring the Innovation Portfolio , Don DeLauder, Executive Director, Product Innovation & Advanced Development, Medrad
1:30 – 2:15	CASE PRESENTATION: TBA
2:15 – 2:30	Refreshment Break
2:30 – 3:30	APPLICATION SESSION/CONFERENCE SUMMATION , Wayne Mackey, Conference Chairman
3:30	Close of Conference

Distinguished Faculty



Conference Chairperson

Wayne Mackey

Principal, Product Development Consulting, Inc.

Wayne Mackey served as chair for the very first Product Development and R&D Metrics Conference and has been a key advisor to the program over the years. His expertise is grounded in over twenty years of hands-on management of large engineering, manufacturing, and procurement organizations. His management consulting is focused on product/service development, and he is especially effective in metrics, collaborative design, supply chain management and business strategy implementation. He is co-author of the best-selling book *Value Innovation Portfolio Management: Achieving Double-Digit Growth Through Customer Value*, and co-author of the PDMA Toolbook for Product Development 3. He holds a Bachelor of Science in electrical engineering and economics from Carnegie-Mellon University and a Master of Science in engineering, from Loyola Marymount University.

Keynote Speakers

- ⊙ **James Andrew**, Senior Partner & Managing Director, **Boston Consulting Group (BCG)** and co-author of *Payback: Reaping the Rewards of Innovation*
- ⊙ **Bradford L. Goldense**, Founder & CEO, **Goldense Group Inc.**
- ⊙ **Larry Keeley**, President & Co-Founder, **The Doblin Group**
- ⊙ **Don Reinertsen**, President, **Reinertsen & Associates** and author of *Managing the Design Factory*
- ⊙ **Dr. Dean Spitzer**, Performance Measurement Thought Leader, **IBM Almaden Services Research** and author of *Transforming Performance Measurement*

Case Study Presenters

- ⊙ **Dr. Raj K. Aggarwal**, Vice President, Global Technology, **ROCKWELL COLLINS**
- ⊙ **Donald M. DeLauder**, Executive Director, Product Innovation & Advanced Development, **MEDRAD**
- ⊙ **Rich Gildersleeve**, Vice President, R&D, **DJO, LLC**
- ⊙ **Guy M. Merritt**, Director of Engineering, Broadband Products Group, **TELLABS**
- ⊙ **Rich Wykoff**, General Manager, New Business Initiatives, **INTEL**

“Home run! Provocative concepts for fundamentally changing the games of innovation and product development excellence. I am walking away with tools and knowledge that could never have been acquired through experience alone.”

Chris Bardeggia, Whirlpool

“This event was timely and I appreciate the thoughtful, relevant content from each of the speakers. The overall organization of the event was particularly impressive — from the website and email communication to keeping the agenda on time and coordinating Q&A. Very excellent!”

Steve Payne, Johns Mansville

“If you’re struggling trying to measure the effectiveness of product development or just want to benchmark how others are doing it, this conference is for you.”

Ken Brown, Boston Scientific

Key Benefits

By participating, you will learn:

- 1 How to integrate and measure innovation in your product development process
- 2 About the frontiers of innovation measurement and metrics—including the unveiling of some entirely new innovation diagnostic techniques
- 3 **Tellabs'** business imperative to couple innovation into its product development process — how innovation opportunities are identified and what metrics play a crucial role in selecting which innovations to pursue
- 4 How to implement emergent and transformational measures to drive higher levels of innovation performance
- 5 How to fold innovation into the flow of the mainstream business
- 6 What metrics to use for a totally new product versus a previously launched one
- 7 **Rockwell Collins'** Sales Growth Leverage (SGL) metric and its use in measuring and increasing the business impact of R&D investment over time
- 8 Seven benchmarked actions that top management can take to increase innovation and productivity
- 9 About emerging techniques and tools being developed and/or fleshed-out to increase innovation
- 10 How to assess technology development and business development opportunities; determine which will lead to long-range, sustainable growth
- 11 **DJO's** successful shift from typical product development metrics to more non-traditional measures including technical resource value-add time, knowledge capture, and project benefit-to-cost ratio to drive advantageous behaviors
- 12 How to prevent your performance measurement system from impeding your innovation strategy and collaboration efforts
- 13 How leading companies use effective measurement systems to dramatically increase their innovation ROI and improve their competitive position
- 14 **Intel's** use of a Learning Based Theory approach to monitor and measure new business investments
- 15 How to profit from innovations — how to track and manage the innovation process
- 16 **Rockwell Collins'** successful development and use of an R&D Scorecard to measure business impact, operational excellence, innovation and external collaboration of advanced technology investment
- 17 How to build an effective dashboard of innovation and product development metrics
- 18 **Medrad's** approach for measuring the value of early stage projects and how this differs for technology and business developments
- 19 About the potential negative impact of seeking conformance to schedule, budget and requirements without managing flow — how to measure flow and the underlying factors that control it

Sometimes Things Change... Driving Effective Innovation with Curiosity, Confidence and Courage



Larry Keeley
President
The Doblin Group

Many scientists and leaders believe we live in the greatest time of change in the history of our species. In practical terms, this means that if you are not routinely innovating you are probably falling behind. So it is essential to see this whole picture, with a special focus on how effective innovation can help drive organic growth, achieve strong ROI, and build bold brands.

Larry Keeley will explain the emerging discipline of innovation that is reinventing this field. In particular, this session will focus on the extensive research that proves how frequently innovation fails to deliver satisfactory ROI. Keeley will then explain how to identify the many surprising, counter-intuitive myths and lore that undermine innovation efforts—and specifically how to adopt methods and logic that can shift innovation from a vague hope to a deep competence.

Participants can expect to learn more about the frontiers of innovation measurement and metrics—including the debut of some entirely new innovation diagnostic techniques.

Larry Keeley is President of Chicago-based Doblin Inc., a leading consulting firm that focuses on effective innovation, now part of Monitor Group. He is on the faculty of IIT's Institute of Design plus Kellogg Graduate School of Management, and lectures regularly at University of Chicago, in Spain, and the Advanced Management Program in Scotland, Edinburgh. Keeley has been named one of the seven leading "gurus" of innovation by BusinessWeek magazine, where they labeled him "Mr. Metrics."

“Excellent conference for the executive who wants to know more about how to raise the bar for product development and innovation performance.”

Terry Vance, The Quazar group

Beyond Metrics and Numbers: Rethinking How You and Your Organization Measure Innovation



Dean R. Spitzer, Ph.D
Performance Measurement
Thought Leader, IBM Almaden
Services Research

What comes to mind first when you hear the words “metrics” and “measurements”?

If you're like most people, you probably think: data collection . . . calculations . . . analysis of numbers . . . tables of statistics . . . scorecards . . . benchmarking. But measurement, according to Dr. Spitzer, is “not so much about numbers as it is about perception, understanding, and insight.”

In this keynote session, Dr. Spitzer points out how measuring the wrong things in the wrong ways can produce dysfunctional behavior and undermine innovation. In fact, he believes that the measurement of innovation is among the least innovative in most organizations! However, measuring in the right ways can transform performance. In fact, Dr. Spitzer will explain how innovation measurement can become an integral part of successful innovation in your organization.

Key Take-aways:

- ⊙ Why performance measurement is so powerful
- ⊙ How performance measurement all too often undermines your innovation strategy and prevents collaboration
- ⊙ How you can make people in your organization experience performance measurement as a positive force
- ⊙ How you can use emergent and transformational measures to drive much higher levels of innovation performance
- ⊙ Why collecting and analyzing data are the least important aspects of performance measurement

Dr. Dean Spitzer is a senior researcher and consultant with IBM Corporation. He is an IBM thought leader in the area of performance management and measurement and has over 30 years experience in helping individuals and organizations achieve superior performance. He is involved in groundbreaking research at IBM on business measurement models and leads a research program on “the socialization of measurement” and on measuring innovation. His latest book is Transforming Performance Measurement: Rethinking the Way We Measure and Drive Organizational Success.

Forget Conformance: Seek FLOW



Don Reinertsen
President, Reinertsen & Associates

Many product developers assume that conformance to schedule, budget, and requirements are the unquestionable keys to product development success. As a result, they develop elaborate metric systems to ensure conformance to their carefully crafted plans. What if they are wrong?

What if the real key to success lies not in conforming to plan, but in how we react to emerging obstacles and opportunities? This radically different view raises profound questions about what we should really measure to achieve success. In this keynote Don will challenge you with a different view of product development. He will discuss:

- ⊙ How improving flow simultaneously improves efficiency, cycle time, and quality
- ⊙ Why seeking conformance and efficiency can actually backfire to undermine flow
- ⊙ How to measure the overall flow in product development
- ⊙ How to measure the underlying causal factors that enable flow

Don Reinertsen is President of Reinertsen & Associates, specializing in the management of the product development process. Before forming his own firm, he consulted at McKinsey & Co. and was Sr. VP of operations at Zimmerman Holdings, a private diversified manufacturing company. His contributions in the field of product development have been recognized internationally. He is particularly noted for bringing fresh perspectives and quantitative rigor to development process management. Don is the author of Managing the Design Factory, a book that is recognized as a powerful and thoughtful application of manufacturing thinking to product development. Don is also co-author of Developing Products in Half the Time.

“The real value of this conference is the mind expanding discussions that provide options and notions that one (person or company) may not think of on their own.”

Bobbie Williams, Sandia National Labs

Payback: What It Is, How to Measure It, and How to Get More



James Andrew
Senior Partner & Director,
Boston Consulting Group

Measuring innovation is clearly one of the most important — and frustrating — parts of managing this critical activity. Without sound measurements all key aspects of innovation — performance, returns, and, ultimately support — suffer. But in a recent global survey of 377 senior executives, the Boston Consulting Group (BCG) found that only 37% of respondents were satisfied with their company's measurement practices. Jim Andrew, the global head of BCG's Innovation Practice, will share insights drawn from his recent book *Payback: Reaping the Rewards of Innovation* (named by BusinessWeek as one of the top 10 innovation and design books of the year), BCG's annual global survey, and his 20 years of consulting to some of the worlds most innovative companies. He will address issues that even the best companies find challenging, including the following:

- ⊙ The three things that always have to be measured
- ⊙ How a simple picture can change the entire discussion around innovation — and significantly improve performance
- ⊙ How to measure the four indirect benefits of innovation
- ⊙ Risk — how to deal with the thing that you can't live without . . . and many management teams don't want to live with

Participants will learn how leading companies use effective measurement systems to dramatically increase their Innovation ROI and improve their competitive position — and what specific steps they as leaders can do to help their companies do the same.

Jim Andrew is a Senior Partner and Director of BCG, based in the Chicago office. Prior to this, he founded and ran BCG's offices in both Mumbai (Bombay) India and Singapore. Jim is the global leader of BCG's Innovation Practice. His expertise covers all areas of innovation, including developing an innovative culture and set of capabilities, leadership requirements, customer/consumer insight, R&D, new product development, product launch, life-cycle management, and innovation measurement. Mr. Andrew is the lead author of the book Payback: Reaping the Rewards of Innovation, recently named as one of BusinessWeek's Top 10 Innovation books for the year.



Innovation Practices & Measures for Organic R&D Productivity



Bradford L. Goldense
 Founder & CEO, GGI

Although innovation is moving from a black art across a plethora of approaches to a more deliberate management science, we are still several years away from estab-

lishing numerical correlations between approaches and outcomes; however, there are emerging indicators of techniques that are likely to prove out over time. At the same time, metrics that directly address R&D productivity and innovation are evolving to keep pace. For example, measures of profit are rapidly gaining popularity and measures of portfolios and intellectual property are also on the rise.

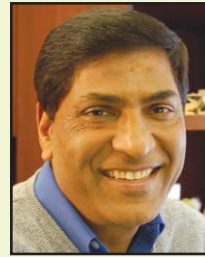
Increasing productivity is everyone's responsibility. There are strategic actions that can be taken at the top and tactical actions that can enhance concept development, innovation and product development processes. Although little is certain at this time, companies that are more risk tolerant will find themselves ahead of companies that wait for everything to become mathematically correlated.

While open innovation appears to be the rage, improved organic innovation is the real quest of most companies pursuing open innovation. In this presentation, Mr. Goldense will offer a number of techniques to improve organic growth and productivity. Topics include:

- ⊙ Seven benchmarked actions that top management can take to increase innovation and productivity.
- ⊙ Techniques and tools in use today that induce more innovation than other tools.
- ⊙ Emerging techniques and tools being developed and/or fleshed-out to increase innovation.
- ⊙ Known productivity and innovation metrics whose industry penetration is on the rise.

Brad Goldense is Founder and CEO of Goldense Group, Inc., a twenty-year old Needham, Massachusetts consulting and education firm concentrating in advanced business and technology management practices for line management functions. Mr. Goldense has consulted to over 200 of the Fortune 1000 and has worked on productivity improvement and automation projects in over 500 manufacturing locations.

Metrics for Technology-Enabled Growth



Dr. Raj. K. Aggarwal
 Vice President,
 Global Technology, Rockwell Collins

With renewed focus on innovation by US companies as a means to create organic growth, the need to measure the impact of innovation on company performance is becoming increasingly important. It is no longer viable, if it ever was, to build a better "mousetrap" and expect the customers will march to your door. Careful planning is required to invest in the right projects to maximize the return on R&D investment.

At Rockwell Collins, we have successfully deployed a simple model of Plan, Execute and Leverage steps that takes into account both business needs and external trends. We have successfully implemented an R&D Scorecard that effectively measures business impact, operational excellence, innovation and external collaboration of advanced technology investment. A Sales Growth Leverage (SGL) metric has been used to measure and increase the business impact of R&D investment over time.

Key Take-aways:

- ⊙ Plan, Execute and Leverage model for research and development
- ⊙ A scorecard to measure business impact, operational excellence, innovation and external collaboration
- ⊙ Sales Growth Leverage metric for measuring and increasing business impact of R&D investment

Dr. Aggarwal is Vice President, Global Technology and Special Projects, at Rockwell Collins. During his 30 years of Research & Development management experience, he has launched numerous initiatives specifically adapted to the company culture and business environment to achieve technology innovation and induced company growth. Dr. Aggarwal received his Ph.D. in electrical engineering from Purdue University. He is currently a member of a number of university advisory boards, the National Defense Industrial Association (NDIA) Science and Engineering Technology Committee and National Research Council Board on Army Science & Technology.



The Evolution of Metrics to Guide and Assess New Business Investments



Rich Wykoff
General Manager, New Business Initiatives, INTEL

Intel's New Business Incubator creates discontinuous new businesses that build on Intel's core capabilities and drive growth. Its

processes, management and measurement systems have evolved to reflect the painful learning's from over 60 investments in the last ten years and to meet the unique challenges of the company.

Measuring results in early stage technology and business development is a complex challenge that must support and inform effective investment decision-making AND provide value-based information to corporate management in terms they will accept. There is no universal formula, the right tools depend on the objectives of the new business effort, corporate culture, and executives in charge.

Building on experience and benchmarking, Intel's New Business Initiatives Group has developed a set of financial, strategic and execution metrics focused on both individual venture and portfolio results. These metrics have helped the group manage and improve its portfolio as well as build credibility with the corporation. Rich will candidly discuss the sometimes painful learning process, Intel's current application of tools and measures as well as future steps.

Key learnings you can leverage:

- ⊙ Driving alignment of metrics to your objectives and corporate culture must be a process unique to your company
- ⊙ Metrics must support both venture optimization (doing the right thing) and portfolio performance (measuring return)
- ⊙ Application is key. How you use metrics is critical to keeping the learning process on track and to fostering innovation

Rich Wykoff is currently the General Manager of Intel's New Business Initiatives group (NBI). NBI is a corporate incubator, chartered to develop new growth businesses for the company. NBI manages a continuous innovation process designed for early identification and development of significant business opportunities. Its portfolio typically holds 10-15 ventures at different stages, with success measured via financial and strategic metrics.

Integrating and Measuring Innovation in the Product Development Process



Guy Merritt
Director of Engineering, Tellabs Broadband Products Group

Today, the Tellabs access product line is immersed in the rapidly growing world of fiber to the home (FTTH). For many years

the "last mile bottleneck" has prevented bandwidth intensive applications and services from emerging in the home. With FTTH technology we have not only solved the problem; we have shattered it. With bandwidth limitations removed, the market place will see a significant increase in innovations in the home environment. To capitalize on this emerging market place, Tellabs has tightly integrated innovation into the product development process.

This presentation will provide a brief overview of the FTTH technology currently being deployed and how Tellabs contributes to that effort. Our philosophies will be shared on why we believe it is a business imperative to couple innovation into the product development process. Explanations will be provided on how innovation opportunities are identified and how measures play a crucial role in selecting which innovations to pursue. Concepts of "fast failure" will be explored as a means to judge the potential market place success and whether or not we should continue with pursuing an innovative solution. Finally, an overview will be provided on how protect the innovation we have developed through a vigorous pursuit of patents and how patents are used as an innovation metric.

Guy Merritt is currently the Director of Engineering in Tellabs Broadband Products Group where he leads a team of hardware, software and test engineers in the development of optical network terminals which are an instrumental component of a nationwide build out for fiber to the home deployments. He has worked in a variety of roles ranging from developer, software quality engineer, program manager and engineering management. His company background varies from mature telecom companies to defense subcontractors and start ups. His extensive expertise in project management resulted in a collaborative writing effort for the book Proactive Risk Management: Controlling Uncertainty in Product Development with the time-to-market guru, Preston G. Smith.

DJO's Metrics Journey: Shifting from Traditional to Non-traditional NPD Metrics



Rich Gildersleeve
Vice President, Research & Development, DJO, LLC

Metrics have been a way of life at DJO, particularly since the organization embraced a lean, accountable and continual improvement culture six years ago. Each functional area has quarterly goals with direct line-of-sight to company short and longer term performance targets yielding a dramatic improvement in customer and shareholder value.

Although metrics have driven a large degree of positive performance in product development, they have also led to unanticipated behaviors. For example, DJO implemented common NPD metrics including product development cycle time and the number of new products released per year only to find out that driving to these metrics can at times negatively impact new-to-world product releases or discovery of optimal concepts. As a result, DJO is now shifting away from typical product development metrics to more non-traditional measures including technical resource value-add time, knowledge capture, and project benefit-to-cost ratio to drive advantageous behaviors. Additionally, DJO is working to align product development resource deployment decisions with strategic portfolio planning and the company's longer term outlook.

In this presentation, Mr. Gildersleeve will examine:

- ⊙ Pros and cons of R&D metrics used over the last five years
- ⊙ Correlation of R&D metrics with overall company performance
- ⊙ Early results of non-traditional R&D metrics; strategies for making the shift from traditional to non-traditional metrics

Rich Gildersleeve is Vice President of R&D at DJO, Inc., a company specializing in rehabilitation and regeneration products for the non-operative orthopedic, spine, and vascular markets. Throughout his career, Rich has been involved in developing new products and product development processes. Rich received a BS in Applied Mechanics at the University of California at San Diego and a MS in Mechanical Engineering and a MBA at San Diego State University. He is a registered professional engineer in California and holds 16 issued US patents.

Metrics for Managing the Innovation Portfolio



Don DeLauder
Executive Director, Advanced Development, MEDRAD, Inc.

MEDRAD is a global leader in the field of diagnostic image enhancement, having grown at a compound annual rate of over 15% for 20 years. Its success has led to a market leadership position in each of the clinical modalities in which it operates (CT, MR, angiography). How can the company continue to grow given that it already commands significant market share in most or all of its business areas? What decisions should shape the portfolio of specifically identified innovative opportunities?

Mr. DeLauder will explore these issues as they relate to managing the "innovation" portfolio.

- ⊙ What are the metrics for measuring the value of an early stage project? Are these metrics different for technology developments versus business developments?
- ⊙ What value, if any, is there in early-stage financial metrics?
- ⊙ Are the metrics used for portfolio evaluation absolute, or are they just guiding factors to be considered in a decision?
- ⊙ What does an "innovation" portfolio decision look like and how is it different from a standard product development decision and portfolio?

Don DeLauder is the Executive Director of Advanced Development for MEDRAD, Inc., a Pittsburgh-based manufacturer of innovative medical equipment and disposable products used in diagnostic imaging. He is responsible for managing and directing technology and product innovations and expanding the company's intellectual property portfolio. Don sits on the MEDRAD Innovations Advisory Board and Corporate Services Advisory Board. Don holds a Master of Science and a Bachelor of Science from West Virginia University, both in Electrical Engineering.



WORKSHOP A

Morning Session, 8:00am - 12:00pm

Metrics 101: Best Practices & A Basic Framework for Success

Wayne Mackey
Principal, Product Development
Consulting, Inc.

It seems that everyone has been talking about metrics for years, yet few companies are satisfied that their metrics are the best they can be. It's time to get back to basics. This pre-conference work session is designed for product development leaders who have more important endeavors to undertake than metrics, yet are keenly aware that implementing metrics correctly adds a necessary and useful tool to their professional toolbox. The session draws upon over fifteen years of research and experience in real-world product development metrics and incorporates an interactive component where the participants will generate a set of practical engineering metrics using a simple, proven method.

This workshop will walk your through the foundational elements of metrics (what they are and what they are not) and will outline metrics best practices as well as common mis-steps. Case studies will be reviewed in the areas of measuring both hardware and service development and then proceed to more challenging metrics including measuring co-development, innovation and customer needs. Participants will then be facilitated through the process of systematically generating, evaluating and prioritizing a basic set of engineering metrics. Within those metrics, the group will specifically address distinctions between:

- ⊙ Predictive versus results metrics
- ⊙ Leadership-level versus project/performing organization metrics
- ⊙ Culling the “critical few” versus scorching the earth with “massively many” metrics

Key Take-Aways:

- ⊙ An understanding of best practices in engineering metrics
- ⊙ Specific examples of metrics implemented by leading companies
- ⊙ Hands-on experience generating a basic engineering metrics framework

WORKSHOP C

Afternoon Session, 1:00pm - 5:00pm

Building the High Performance R&D Team

Wayne Mackey
Principal, Product Development Consulting, Inc.

High performance companies have little patience with innovation organizations that act more like tenured academics than a proactive part of growing the business. Likewise, highly skilled innovators will not join or stay in an organization where their creativity is not valued. To rapidly make the transition from a collection of unfocused professors into an innovation competitive weapon, companies must clearly define the innovation skills they will need now and in the future and then communicate them throughout the organization.

In this highly interactive workshop, participants will:

- ⊙ Review examples of the critical few skills needed for the future from best practices across industry groups
- ⊙ Review a case study of one organization's journey to better innovation organization skills
- ⊙ Develop a set of simple Excel-based “skills matrixes” for each major innovation job function
- ⊙ Learn how to distribute the matrixes via email and combine the returned data simply and efficiently
- ⊙ Use the combined data to define group training needs, individual development actions and outside hiring requirements

Key Take-Aways:

- ⊙ A menu of best practice innovation skills from industry leaders
- ⊙ A process to develop skills matrixes for any job type
- ⊙ A process to efficiently use skills matrixes in your organization

Wayne Mackey's expertise is grounded in over twenty years of hands-on leadership of large engineering, manufacturing, and procurement organizations. His management consulting is focused on product/service development, and he is especially effective in collaborative design, metrics, portfolio management and business strategy implementation. He is co-author of the new book The Value Innovation Portfolio.

WORKSHOP B

Full Day Session, 8:00am - 5:00pm

Linked Metrics Portfolio™



Bradford L. Goldense
Founder & CEO
Goldense Group, Inc.



Timothy P. Kirby
Associate, Goldense Group, Inc.

GGI research in the late 1990s indicated that companies have many metrics in R&D and Product Development. However, these metrics are generally not well organized and do not facilitate horizontal linkage with cross-functions and vertical linkage across levels of the organization. The frameworks that do exist, such as a “scorecard that is balanced,” have more utility in transaction processing functions than they do in the inventive functions of Marketing, R&D, and Product Development. In 2002, GGI introduced a new metrics framework to industry aimed at inventive functions called the Linked Metrics Portfolio™. Approximately one hundred companies now have an application of this framework in their organization. In 2006, the USPTO granted intellectual property rights to GGI for this differentiable framework.

This workshop was designed to help companies construct a Linked Metrics Portfolio™ for their R&D and Product Development capabilities. Participants will leave the session having completed a draft of a portfolio of metrics that link at least three vertical levels of the NPD organization(s) together and most of the cross-functions that are engaged in NPD. The session will cover the following topic areas:

Morning Session:

- ☉ State of Practice of NPD Metrics
- ☉ NPD Metrics Frameworks
- ☉ Corporate NPD Metrics
- ☉ Project NPD Metrics
- ☉ Functional NPD Metrics
- ☉ Improvement of NPD Metrics

Afternoon Session:

- ☉ Organize Working Groups Based On Strategy & Industry
- ☉ Construct Project Metrics Portfolio
- ☉ Construct Functional Metrics Portfolio
- ☉ Determine Metrics To Link Upward In NPD Organization
- ☉ Construct VP-Level Overall NPD Metrics Portfolio

- ☉ Select The Few Metrics To Link Upward To CEO
- ☉ Polish The Linked Metrics Portfolio™
- ☉ Report-Out Your Portfolio To Fellow Workshop Participants

It would be helpful, but not required, to have a computer with you during the afternoon session. Portfolio templates will be available manually and in .ppt format. Teams of three or more people from the same company will work together as a group. Individual attendees will be grouped by company strategy [Innovator, Innovator-Extender, Balanced, Extender] into working groups of 5-7 people to collaborate in the creation of a portfolio. Please come prepared to roll up your sleeves and generate a linked portfolio of metrics that will be readily adaptable to your company when you return home.

Bradford L. Goldense is Founder and CEO of Goldense Group, Inc., a twenty-year old Needham, Massachusetts consulting and education firm concentrating in advanced business and technology management practices for line management functions. Mr. Goldense has consulted to over 200 of the Fortune 1000 and has worked on productivity improvement and automation projects in over 500 manufacturing locations. Mr. Goldense is a member of the faculty at the Gordon Institute of Tufts University in Medford, MA. He holds a BS in Civil Engineering from Brown University and an MBA in Cost Accounting and Operations from Cornell University.

Timothy P. Kirby has five years of industry experience spanning professional services, event planning, customer service, marketing, and sales. He has worked in the management consulting, executive education, aerospace, retail, and food service industries. At GGI, Mr. Kirby has worked with pharmaceutical and biotech companies, electrical and electronic component and systems manufacturers, and companies involved in the delivery the voice and video equipment and services. Mr. Kirby holds a BS in Business Administration at Northeastern University with concentrations in new venture management and marketing.

“Profitable innovation...

cannot be bought.

Simply spending more

usually leads to a

waste of resources on

increasingly marginal

projects. The solution is

not to boost incremental

spending, but to raise

the effectiveness of

base spending.”

Strategy + Business

About Management Roundtable



The Management Roundtable (MRT) is the foremost knowledge and networking resource for industry practitioners involved in product, service, technology, and business development. Practitioner-oriented and unbiased, MRT's focus is on strategies and processes

that enable speed, innovation, profitability, and overall competitive advantage. Through its highly regarded conferences and publications, MRT has helped companies achieve their objectives since 1980. Its newest membership offering, the Management Roundtable FastTrack, (<http://fasttrack.roundtable.com>) offers direct, year-round access to leading-practice insights via teleconference and online reports.

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“The quality of conference speakers was tremendous. If you attended this conference, you'd walk away with an in-depth understanding of business metrics which drive success.”

Brian Burlingame, Merck & CO.

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SPECIAL FEATURES

Cutting-Edge Keynote Presenters: Hear what the top experts in product development and innovation metrics have to say about increasing ROI of Innovation and R&D activities and what to expect in the future.

Extended Keynote Discussion Opportunities: Several of our keynotes will be available for a one hour discussion group on day two of the conference. Take the opportunity to sit down with a small group of attendees and the keynote speaker of your choice to get your individual questions answered.

Choose From Three In-Depth Pre-Conference Workshops:

A. Metrics 101: How to systematically generate, evaluate and prioritize a basic set of engineering metrics.

B. Linked Metrics Portfolio™: Learn the key steps of constructing your own linked metrics portfolio™.

C. Building the High Performance R&D Team: How to determine and acquire the right skill sets to achieve innovation initiatives.

Special Application Session: Participate in small breakout groups to analyze conference take-aways, select key metrics for your company and determine what resources will be needed to successfully implement innovation and R&D metrics in your organization. Session led by conference chairman and leading authority on product development metrics, Wayne Mackey, Principal, Product Development Consulting, Inc.

Complimentary Copies of Speaker Books: James Andrew's highly acclaimed book **Payback: Reaping the Rewards of Innovation** and Dean Spitzer's recently released book **Transforming Performance Measurement**

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The optimal conference experience includes learning about available products and services and how to leverage them for success. Management Roundtable's *Product Development Metrics* attracts attendance by leading players across industries and multiple functions. As a solution's provider, take advantage of this opportunity to demonstrate your expertise and come face-to-face with decision makers in a low pressure environment. There is no better way to reach so many potential customers so quickly and find out first-hand about what's going on in the market place.

For more information on how to position your firm as a sponsor or exhibitor, please contact Beth Schragger at 978.263.9982 or bschragger@comcast.net.

Program Information

Dates: November 5 - 7, 2007. Two-day conference registration and continental breakfast begin at 7:00 am on November 6, 2007 and the program adjourns at 3:30pm on November 7, 2007. Optional pre-conference workshops are offered on Monday, November 5th from 8:00 am - 5:00 pm. Registration and continental breakfast begin at 7:00 am.

Fees: Fee includes two day program, program materials, luncheons, wine/beer-and-cheese reception, continental breakfasts, and refreshment breaks. Stand alone pre-conference workshops are \$745 for *half-day* sessions and \$1490 for *full-day* sessions. Workshops include materials, breakfast, and luncheon.

Venue and Accommodations: The conference will be held at The Hilton Chicago, 720 South Michigan Avenue, Chicago, Illinois 60605. A limited number of rooms are available at a special rate of \$224/night until October 12, 2007. **Please reserve early.** Call 877-865-5320 directly and be sure to mention that you will be attending Management Roundtable's "Metrics Conference."

EARLY BIRD: Reserve before September 28, 2007 and save \$200 — See price chart below.

	Before 9/28/07	After 9/28/07
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2 half-day workshops or one full-day	\$1490	\$1490
1 half-day workshop only	\$745	\$745

4

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LEARN:

- ☉ To assess the impact of innovation and R&D on company performance
- ☉ New methods and approaches to measure early-stage and new-to-the-world opportunities
- ☉ About emergent and transformational measures to drive significantly higher levels of innovation performance
- ☉ Key steps to implementing and folding innovation metrics into the organization

“This is a ‘Tour de Force’ through the jungle of metrics in R&D! Together with the pre-conference workshops it was extremely valuable.”

Roland Heinrich, Millipore Corp



Early Bird Discount: Reserve by September 28 — Save \$200!

Product Development Metrics: Increasing Return on Innovation, Achieving Organic Growth

Please accept the following registration(s): (photocopy for additional people)

See program and pricing information on page 15.

2 day conference only

Pre-Conference Workshops: (optional; see inside for descriptions and pricing)

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FULL DAY B. Linked Metrics Portfolio™

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