

Winning at Product Innovation Newsletter

Pinpoint the Weaknesses of Your Product Development Process

November, 2004

Dear Product Development Leader,

A recent Product-MASTERS survey found that 80% of respondents were materially dissatisfied with their ability to drive successful products to market in a timely manner. Half of them were planning to take action through some sort of planning/improvement initiative.

Interestingly of those companies who had recently undertaken an improvement initiative, twenty percent judged them to be successful after one year. Most had consumed time and resources but produced little change.

So the idea of successfully assessing the strengths and weaknesses of product development system to drive improved performance is the topic of this month's newsletter.

We will:

- Provide background on assessing your product innovation engine.
- Outline a few of the methods we use for conducting assessments.
- Provide a link to our white paper listing 21 tips for building an NPD improvement plan.
- Provide an e-mail link to request a less ambitious, "quick start" method for conducting a mini- assessment of NPD.



If you find this newsletter useful could we ask you to use the forward button below to pass this on to one person you know who may benefit through subscribing?

[Joseph Kormos](#), Principal, Product-MASTERS

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This issue... focuses on assessing the strengths and weaknesses of your Product Development System. Key topics:

- ▶ [Need for an Assessment](#)
- ▶ [Key Issues](#)
- ▶ [Areas to Assess](#)
- ▶ [The Maturity Model](#)
- ▶ [Key Steps](#)
- ▶ [Collecting the Facts](#)
- ▶ [21 Tips for Conducting an NPD Improvement initiative](#)
- ▶ [A Quick start guide for a mini assessment](#)

WHEN DO WE NEED AN ASSESSMENT OF OUR PRODUCT INNOVATION ENGINE?

Product Innovation Engine Assessments focus on understanding the key strengths, weaknesses and throughput constraints of our NPD system and what actions to take to improve the system.

When do you need to know this? Since NPD improvement never ends the correct answer is that you always need to understand your key weaknesses/performance improvement opportunities.

However, there are a variety of specific situations that lead companies to conduct an assessment. Here are a few:

- **Statute of Limitations** – “We haven’t done a thorough review of our NPD practices in three years.”
- **In-Grown Eyeballs** - “We need a fresh pair of eyes to understand what we are doing well and not so well in the area of product development and innovation. We seem to be limited to what we already understand.”
- **Targeting an “Innovation Strategy”** - “We’ve recently identified product innovation as a target strategic competency for the enterprise. It’s critical to our medium and long-term business success and competitive advantage. We need to get this strategy off to a strong start.”
- **Dissatisfied with R&D Payoff** – “Management is dissatisfied with how much we spend on product development vs. how much we get out of it.”
- **Competitive Disadvantage** – “The competition is beating us at innovation and new products.
- **New Tools** – “Some of our departments are lobbying to acquire new IT tools for managing product development processes, product data, product strategies and portfolios and requirements. But it doesn’t seem like that will have much impact unless we know where we should be heading overall.”
- **Lack Urgency** - “We need help building a sense of urgency for necessary changes and to build the case for taking specific improvement actions.” Or, “Over the last x years we’ve been unable to effect any improvements to our PD system. We can’t seem to get better.”
- **Product Flops** - “We’ve experienced recent product flops -- late or wrong to market or a history of under performing products --and we frankly can’t afford more of this.”
- **Lack Winners** - “Our products aren’t flops -- but nobody can remember a new product that really hit the mark – and we don’t have offsetting strengths in manufacturing, customer service or distribution coverage – we need some big winners.”
- **Outgrown Our Processes** - “Recent rapid growth has outstripped the capabilities of our existing/limited management and technical systems and processes. It’s a happy problem -- but a real problem.”
- **Throughput Changes**- Management has recently approved or is discussing a plan to materially expand either the number of products we offer, the size of our product development organization, or The speed at which products can be developed and launched to the market.
- **Market or Competitive Turbulence** - “We’re experiencing or anticipating business environment turbulence in the form of new or different competition – new names offering new value propositions or discontinuous innovations which will threaten our current value position in established markets.”
- **Lack Strategy**- “We have no consistency among our products. Our PD projects are all over the map. We don’t know where we are heading.”

Product Innovation Engine Assessment



SET GOALS

The first step in performing a Product Innovation Engine Assessment is, not surprisingly, to understand what you’re trying to learn from the assessment.

It's usually a good idea to set some goals. These goals will, of course, depend on your specific situation. The following, however, is a generic, yet reasonable set of objectives for an Assessment:

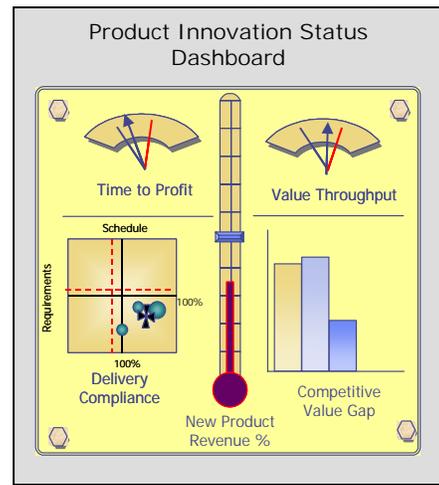
- Define the required management system (Core processes, Key Competencies, Information Systems, Organizational Structure) to consistently drive exceptional, high value products to the marketplace.
- Define the business value of establishing that management system.
- Define specific metrics and target values for improved innovation performance available from this system.
- Build a realistic roadmap/plan for the changes necessary to achieve the target values.
- Build broad based organizational support for enacting the changes called for in that plan.

WHAT QUESTIONS TO ANSWER – THE KEY ISSUES

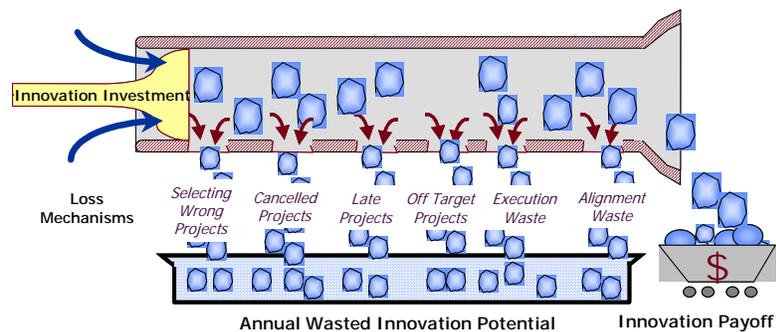
The whole idea of the assessment doesn't quite take shape until we define some key issues. We find that expressing these issues as questions is the most effective way to articulate them.

Here are some questions that are central to effective innovation competency planning and to the design of initiatives that can take root and drive sustainable change:

- **Target 'Engine Output'** – What has been the past 'output' from our product innovation engine/system? What does it need to be to execute our business strategy? What is the planning gap?
- **Metrics** – How do we/should we define innovation performance/output? How do we compare with others (and with our recent past) in key forward and backward looking innovation metrics?
- **Constraints** - What are, in order of priority, the issues constraining the throughput of product value to the market at our company?



- **Business Value** - How much can innovation performance be improved? (10%? 25%?) What would it be worth to us to improve innovation performance by x%. How much does an *ineffective* innovation system cost us and, conversely what would be the pay off from improved innovation?
- **Waste & Loss Streams** – How important are the typical loss streams (poor project selection, cancelled projects, late projects, off target projects, alignment waste and execution waste) in reducing the output of our innovation engine?
- **Misalignment** - What are the differences in perception of the problem/opportunity between various communities involved with product innovation? What are the root causes of these differences? How



well aligned are the various silos in the innovation/value pipeline?

- **Basic Motivation** - In simple terms what is the reason we need to take action? Is there a burning platform? ("Hair on fire")
- **Strategic Competencies** - What are the 1-2 things (with respect to product innovation) that we do well, should do well and must do well?
- **market Awareness** - Do we understand the "place/role" of our products in the marketplace? Do we know why people do and do not buy our products? What differences in perception exist between marketing, sales, development and customers concerning product value, competition, buying factors.
- **Competency Maturity** - What is the maturity level of the firm in the key innovation competency areas?
- **Past Efforts** - What investment has been made in innovation improvement? What has been done/tried: Successfully? Unsuccessfully
- **Actions** - What actions should be taken to improve by x%. What will these actions cost? How long will it take to execute these actions? To see results? How much can payoff be improved in 6, 12 18 months?

WHAT IS "IN-BOUNDS" -- AREAS TO ASSESS

One of the issues from the above list that will definitely need further exploration is to understand the levels of maturity of various product innovation competencies.

Most organizations have never thoroughly considered the broad set of competencies necessary for product innovation excellence.

It is important to understand that there are two basic types of competencies. Project Competencies and Cross-project competencies. Here are some of the most common:

Project Competencies

Key project competencies are:

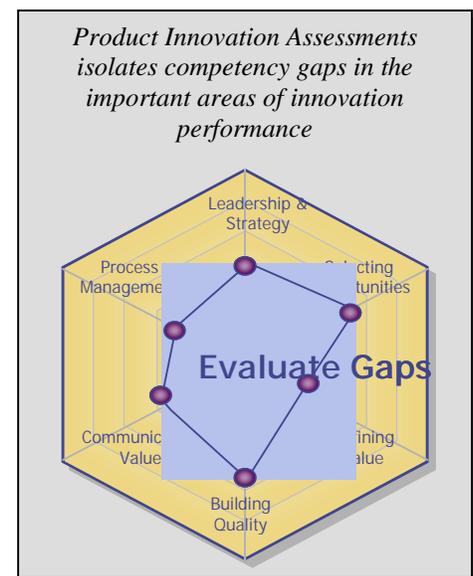
- Project management
- Product definition and competitive assessment
- Systems engineering
- Digital Design definition
- Predictive reengineering and simulation
- Design to Cost
- Concurrency, Collaboration and Cross Functional Teams
- Product Launch

Cross Project Competencies

Even more important and subtle are the key competencies that support NPD but are related to an individual project but rather how we manage a collection of projects.

Key cross project competencies include:

- Consistent Management support and Leadership
- Product Vision and strategy
- Generating product ideas



- Project selection and portfolio Management
- Capacity and resource management
- Technology Strategy
- Architecture and Modularity
- Staff and Skills growth
- Product Innovation process
- Metrics and Performance Measurement.

ASSESSING COMPETENCIES – THE MATURITY MODEL

Once you've decided the boundaries of your assessment its important to have a model for evaluating the maturity of your organization in each competency area.

We use our [Product-MASTERS Innovation Maturity Model](#). It helps to evaluate the innovation competency of enterprises in each of the above competency areas along four key dimensions:

- Attitudes and behaviors
- Activities and Practices performed
- Commitment to deliver excellence in the competency area
- Results achieved in critical competency specific metrics

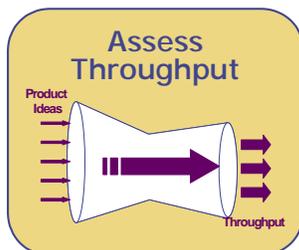
The link above takes you to more information about the model. If you have specific needs for portions of the model to help in your evaluations don't hesitate to [contact us](#).

The Product Engine Assessment Evaluates Practices Maturity in Twenty-Six Product Innovation Competencies Areas
(Excerpt below)

B2.PROJECT SELECTION/PORTFOLIO QUALITY				
Stage 0 Conventional	Stage 1 Emerging	Stage 2 Defined	Stage 3 Advanced	Stage 4 Mature
<input type="checkbox"/> PD Project list is disjointed; projects seem to appear from nowhere /anywhere <input type="checkbox"/> Way to many projects for the available resources as indicated by many people assigned to multiple projects and/or a large list of dormant projects; long delay to start projects <input type="checkbox"/> Many PD projects are	<input type="checkbox"/> Most prominent source of new projects is our last major order <input type="checkbox"/> Projects lack synergy/explicit link to vision/overall strategy. <input type="checkbox"/> Planning is done for one generation of products <input type="checkbox"/> Virtually impossible to get resource to explore a new concept	<input type="checkbox"/> Planning is done for two or more generations of products <input type="checkbox"/> The majority of new product proposals play off or draw upon existing strengths of the organization. <input type="checkbox"/> We've pared down our projects list and are attempting to bring it in line with available resources <input type="checkbox"/> New projects have clear source, role and expectations <input type="checkbox"/> Clear criteria for selecting between ideas has been proposed <input type="checkbox"/> Mechanisms are	<input type="checkbox"/> Products are planned on a platform basis. <input type="checkbox"/> The portfolio of product development efforts and R&D spending is regularly reviewed by management <input type="checkbox"/> Portfolio reviews assess distribution of PD resource by product lines and markets. <input type="checkbox"/> Portfolio reviews assess balance between short and long term projects, R. vs. D., focus and diversification, investment in current vs. new product platforms. <input type="checkbox"/> Clearly defined financial/strategic screens exist for selecting new product ideas; criteria vary based upon risks of various product types	<input type="checkbox"/> Planning is done for three or more generations of products <input type="checkbox"/> We have a defined method for calculating the capacity of our PD Pipeline and matching projects with capacity to reduce overload <input type="checkbox"/> Risk profile and innovation charter of the portfolio of future product projects has been defined. We know: the degree to which we desire to be market leaders or fast followers; what portion of our effort for new to company/new to market products? New

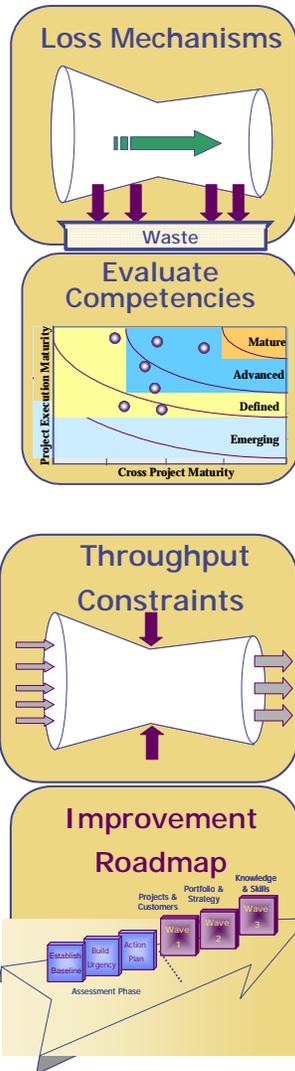
KEY STEPS

In short the key steps for executing an assessment are as follows:



STEP 1

The assessment begins with a throughput analysis to understand what your current engine has delivered in the past and what it needs to produce in the future. This analysis is the foundation for improvement goals and it builds the economic case for change.



STEP 2

Next you should thoroughly explore your innovation loss mechanisms: cancellations, the cost of lateness and inefficiencies due to missing the mark with customers

STEP 3

Using the Product-MASTERS' proprietary maturity model or similar evaluate your organization in key areas of innovation best practices.

Use the model to establish a comparative baseline between your company and other organizations, describe key capability gaps to be closed and the primary success factors driving improved results.

STEP 4

Using throughput, loss stream and competency gap data identify the key constraints to increasing value throughput.

STEP 5

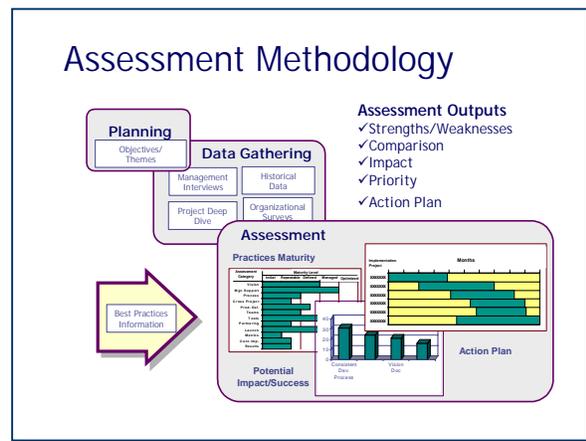
Build a step by step roadmap defining key management, skills and process improvements necessary to address the key constraints and improve innovation performance.

GET THE FACTS

The how and when you use what methods of data gathering in each step is beyond the scope of this newsletter.

Briefly stated however the following are a few of the key approaches we use that may work for you:

- Climate Assessment Survey** – Do this on-line to get broad input from all members of the new product community.
- Interviews.** Conduct topical, competency oriented interviews with people who can represent current practice. Have the attendees review



themselves with the maturity model ahead of time. Focus on establishing the level of maturity and the constraints to moving to the next step.

3. **Management Workshop** – This is critical to making sure management is on board and willing to hear the good and bad news from your assessment. It's also critical to understand what they think the issues are vs. the troops.
4. **Project Deep Dives** – Explore the anatomy of at least a couple of past projects. This will fill in the blanks.
5. **Metrics Evaluation** – define some key metrics and collect some foundation data to help establish the economic value and potential concrete improvement targets.
6. **Product Value Gap/Positioning Analysis** – For extremely thorough assessments you'll want to define the value gap that current products have vs. key competition. We'll leave this interesting topic for another article.

PRODUCT-MASTERS WHITEPAPER: BUILDING A PRODUCT DEVELOPMENT IMPROVEMENT PLAN: 21 TIPS

We can't help you figure out if and how you need a product innovation engine assessment without knowing something more about your specific situation.

However if you want to look further into some of the do's and don't's of giving your product development system a physical take a look at our [white paper](#). (Select white paper II from column two)

QUICK START MINI-ASSESSMENT

If the amount of depth associated with these assessments seems a bit too much to handle don't be overwhelmed. For well over half of industrial companies an assessment can be completed in a week or less. Ninety percent of companies can be concluded in a month.

However if that still seems like more than you can justify contact us by email (assessment@product-masters.com) or 513-683-1911) to receive a free recipe for a quick start mini assessment you can complete in 1 to 2 days.



Links

WWW.PRODUCT-MASTERS.COM

Improving Product Innovation Performance

- ▶ [Innovation Services and Workshops](#)
 - ▶ [Innovation White Papers and Newsletter Articles](#)
 - ▶ [Our Vision & Value Proposition](#)
 - ▶ [The Product Innovation Maturity Model](#)
 - ▶ [Innovation Metrics Collaborative](#)
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Winning at New Product Innovation Newsletter

Monthly tips for accelerating innovation cycles and improving product success rates.

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