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the innovation master plan
the CEO's guide to innovation

by langdon morris

this excerpt includes

chapter 6

Langdon Morris is recognized worldwide as one of the leading authors and consultants in the innovation field. A new chapter of his latest book, The Innovation Master Plan, will be presented exclusively at InnovationManagement.se every two weeks throughout the summer. It will soon also be available at Amazon.com (but not quite yet).
The Innovation Master Plan

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chapter 6

taking action:
designing and implementing your master plan through innovation metrics

or, how to measure the innovation process and its results

“Measure what is measurable, and make measurable what is not so.”

Galileo

Like everything in business that involves the investment of capital and time, innovation should be a disciplined process that has to be measured so that it can be genuinely managed. This isn’t news, but it is nevertheless problematic, because measuring innovation the wrong way, or measuring the wrong aspects of it, can be a genuine detriment to its progress.

Further, there are a lot of ways to measure innovation productivity, so choosing the right metrics requires some selectivity. Process-oriented metrics typically consider the means, such as the number of new ideas proposed or new ideas introduced. They also consider organizational outcomes such as increased capabilities with existing or new technologies, which makes them potentially useful as indicators. Financial metrics are focused on ends, the results, and include ROI-based models to track financial performance, or the proportion of sales or profits from new products. Given the many possibilities, it takes some effort to sort it all out, which is my purpose in this chapter.

the dilemmas of innovation metrics

Unlike most other forms of business measurement, innovation metrics present problems for the process that has to be measured. We might call this an “innovation uncertainty principle,” as many of the assessments that we might use to measure innovation can significantly impede the process itself.

One reason is that the pursuit of innovation necessarily involves a venture into the unknown, and if we try to pin these unknowns down too early in our process we may make it more difficult to recognize and realize good opportunities or solutions.
If we try to calculate the value of every idea very early on in the process of its development, we may end up with a meaningless and misleading number that may have disproportionate influence on our thinking at precisely the wrong time.

Another reason is that misapplied metrics may also undermine the spirit of learning, discovery, and intelligent risk-taking that the innovation process requires, by locking us into a particular version of the concept too soon.

A third reason is that the discussion of metrics is sometimes used as a form of intimidation to demean the ambiguity of the innovation process, as compared with other forms of business investment that are more amenable to hard core measurement.

Let’s start by looking more specifically at the ubiquitous financial metric ROI, return on investment.

**the perils of ROI**

Among the many measurement tools available, it’s become a reflex among business leaders to apply the marvelously useful concept of ROI to just about everything. This is generally a healthy thing, and as innovation is indeed a form of investment that should absolutely generate a better-than-market-rate return (or why bother?), ROI is a natural part of the innovation discussion. But it does present certain problems that we have to be aware of.

ROI discussions make a lot of sense when we’re evaluating incremental ideas that will be applied in existing, well-understood markets, using existing, well understood business processes such as established manufacturing and distribution systems.

But when we’re considering ideas that aren’t incremental, and when they are in the early stages of development, a huge danger suddenly appears, because ascertaining ROI early on drives us to try to assess what the completed innovation could return to us when we’re unlikely to have a realistic idea of what its worth could really be. So we are sometimes forced to guess. If we like the idea then we may be inspired to make wildly optimistic predictions of revenues; or if we don’t like it, we may default to drastically pessimistic ones. And if we then make decisions based on our optimistic or pessimistic predictions, although our spreadsheets are still no more than assumptions, we often forget that, and treat them as real. So the entire edifice of our thinking process is built on nothing but air, bits, and bytes.

Innovation thrives in environments of ‘what if,’ ‘how about?’ and ‘it might…’ but it can be very difficult to achieve when there is an insistence on certainties, especially when they don’t exist. This reinforces something we already discussed about innovation, which is that it’s a process that is suffused with ambiguity. But the ROI conversation is entirely intolerant of ambiguity, and when introduced at the wrong time it is an innovation killer.

The other problem with ROI is that discussing it almost always forces us to try to relate a new idea to an existing market in order to have some basis for comparison. This drives us back to incrementalism even when an idea contains the seeds of a potential breakthrough. Inasmuch as breakthroughs take us to new territory,
comparisons to existing models can be self-defeating.

And then there are the chicken-and-egg discussions that go like this:

Question: “What’s the value of this idea?”
Answer: “We don’t know.”
Response: “We can’t fund it if we don’t know what’s going to be worth.”
Counter: “We won’t know what it will be worth until we get some funding to develop it…”
So around and around you go.

Discerning the intent behind the dialog is an important aspect of figuring out what the conversation actually means. Many executives use the “ROI question” as a zinger or a gotcha, a trick question through which they wish to discredit the idea or the innovator. They know perfectly well that an accurate assessment of ROI is generally impossible at the early stages, so when they play the ROI card in this setting it’s an accepted truism in the research and development community that the term ‘ROI’ really stands for ‘restraint on innovation.’

As a result of all these factors, ROI-based assessments tend to favor short term thinking and to disfavor the development of long term, breakthrough, and discontinuous ideas and projects. Premature use of ROI to measure innovation thus endangers the very life of the thing you want to measure, and makes it less likely to achieve the end goal of the process, which is better innovations.

All of this presents difficult problems for R&D and innovation managers who are obliged to look after their portfolios diligently, and to manage their resources effectively, and to provide accurate measurements of their progress. This was evident during a recent meeting at HP Labs when a manager commented that he couldn’t even look at a project that didn’t have the potential to become at least a $50 million business. The problem, of course, was that he was forced to guess just how big a business every idea that was proposed to him could become. And how could he know?

So what do you include in your research plan, and what do you put aside? Did the researcher whose work led to the creation of HP’s multi-billion dollar inkjet printing business know what he was getting the company into when he became curious about the burned coffee he noticed on the bottom of a coffee pot? Could he have said that his idea about superheated ink would be worth $50 dollars, much less $50 million?

Unless he was inspired by an awe-inspiring fit of hubris, certainly not. Yet today HP sells $25 billion per year of inkjet printers and inks.

So if someone had asked him to calculate the ROI on his research work, he could either guess, lie, or report that he didn’t really have any idea. And if he was nevertheless obliged to assess the ROI at an early stage, chances are he would have abandoned the idea altogether rather than risk his good standing in the organization. (Hence, the importance of the portfolio as a safe context for exploration.)

Yes, there are risks with ROI, and indeed with many other types of measurement. In the end, the root cause is that investment in innovation is necessarily investment in learning, a process that is distinctly open ended and
therefore highly resistant to the ways we think about most of the other processes that make a business successful. This one, though, is genuinely different, and if that difference is not respected then its underlying mission to create the future through discovery, creativity, and invention will be frustrated.

And yet having said all that, I know and you know that ROI is an important business concept, and for good reason it’s not going to go away. Therefore, use it thoughtfully and not as a reflex. We will revisit it below as part of an inventory of possible metric tools, and discuss the context in which it does make sound business sense.

**dr. deming, metrics, and quality**

There is no valid measurement without valid statistics, and yet many aspects of the innovation process are intangible and elusive, and they evade our attempts to count them in a meaningful way.

Dr. W. Edwards Deming, the man who is credited with introducing Japanese companies to the principles of manufacturing and business quality during the rebuilding years following World War II, was himself trained as a statistician (that’s the field in which he earned his Ph.D.), and as a consultant he learned to focus on what statistics told him about effective management. The numbers, in other words, tell a story that only they can tell, but to understand the story you also have to look behind the numbers.

Dr. Deming was a passionate man with a large, booming voice and deep insights. The quality movement that he contributed so much to, and whose impact on business has been profound and global, originated with a close understanding of the linkage between performance, its measurement, and the methods by which performance was achieved, i.e., the work process itself. Properly gathered and interpreted statistics are essential.

While many of the principles that Dr. Deming ultimately came to espouse at first appear to have nothing to do with statistics, in fact they are all based on and derived from the close linkage he saw between statistical results and the methods that were used to achieve those results, which he studied carefully. He was particularly incensed by counterproductive management behaviors he saw in the workplace, behaviors that prevented work from being done to the standards it ought to have been.

Furthermore, Dr. Deming was dedicated to the principles of innovation, and his writings reflect a profound understanding of how knowledge of statistically-measured performance leads from quantities into innovation, strategy, and business success.

“What business are we in? In the case of carburetors, was it to make carburetors? Yes. The makers of carburetors made good carburetors, better and better. They were in the business of making carburetors. It would have been better had they been in business to put a stoichiometric mixture of fuel and air into the combustion chamber, and to invent something that would do it better than a carburetor. Innovation on the part of somebody else led to the fuel injector and
to hard times for the makers of carburetors. A good question for anybody in business to ask is What business are we in? To do well what we are doing – i.e., to turn out a good product, or good service, whatever it be? Yes, of course, but this is not enough. We must keep asking What product or service would help our customers more? We must think about the future. What will we be making five years from now? Ten years from now?"\(^1\)

Innovation is value delivered, received, and acknowledged, not just value intended.

**learning**

We’ve already discussed the necessity that the innovation process must be a learning process, and the theme is relevant again here as we discuss metrics. There will be many ‘failures’ along the way, and this is normal. In fact, if an innovation process is not reporting frequent failures then it’s probably not exploring broadly enough.

This reminds us to consider our underlying attitude about failure. In the innovation process, failure is about learning, and it is absolutely necessary to learn in order to succeed at innovation. The faster you learn, the faster you succeed, which also means that the faster you fail, the faster you succeed.

Measuring the innovation process and its results is a way to assess the value of what has been learned, and also to improve the effectiveness of the learning process.

**measuring in the early stages or at maturity**

Measuring the effectiveness of your innovation process is a lot easier to do when the process itself is mature, and you can look back and see tangible evidence of your accomplishments and failures (both intelligent and no so intelligent). At the early stages, which could be anywhere in the first year, or two, or even three, measuring your progress is more difficult because you may not have as much to show for your efforts as you would like to have.

Which is of course ironic, because it’s in the first years that most people want reassurance that they’re doing it well enough to continue with the effort, and encouragement that the investment they’re making will indeed generate that coveted ROI. Convincing proof, however, will usually only come later, when more results are in.

Therefore, please be patient.

**twelve particularly useful innovation metrics**

In exploring the measurement of innovation we found that across the 7 stages there are at least 92 metrics. About a third of the total are qualitative, or conceptual, and the rest are quantitative. Since 92 is of course a ridiculous number, far too many

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for any organization to actually use, you’ll have to choose the ones that will serve you best, and leave the others aside.

Before we look at the full set, however, I’ll highlight the twelve that we’ve found to be most consistently useful for our clients.

**external metrics: impact on brand and image**
1. The outputs of the innovation system significantly enhance the brand. They accelerate the acquisition of new customers, contracts, and/or clients, as measured by the “rate of new customer acquisition.” This is evident in new sales to new customers.
2. The opinion that customers have of our company, as indicated through brand image surveys, customer feedback, and analyst rankings, improves consistently and significantly.

**external metrics: impact on ecosystem**
3. The innovation system engages a large and growing set of external partners, customers, suppliers, and others, creating a broad, comprehensive, and thriving open innovation ecosystem. (We will discuss the concept of the ecosystem and the principles of open innovation in Chapter 9.)

**internal metrics: impact on growth and revenue**
4. The innovation system results in a significant increase in the number of attractive, new, internally-sourced investment opportunities that are available for consideration by senior managers and the board of directors.
5. Valuation of the total innovation portfolio increases significantly compared to prior period, year over year. Financial valuation methods would include NPV, asset valuation, and/or option value. Incremental innovation metrics would include percent of products/services revenue attributable to innovation within existing product/services lines.
6. The net portfolio valuation increase is at least 5x to 10x greater than the capital invested. Financial valuation methods would include NPV, asset valuation, and/or option value.
7. The number and percentage of projects that are in the innovation pipeline that are judged to be high quality increases steadily.
8. The proportion of projects in the pipeline that are not incremental projects (i.e., these are breakthroughs and new business model innovations), increases significantly year over year.
9. The number of non-incremental projects delivered as innovations to the market increases significantly year over year.

**people metrics: impact on culture**
10. Speed of innovation project completion increases year over year.
11. The number of people who are participating in all aspects of innovation
efforts increases significantly year over year.

12. The quality of the contribution by each person increases steadily, and over time more people are contributing more valuable ideas and efforts in the innovation process.

In summary, successful development of the innovation process will steadily enhance your company’s overall capability in many areas of performance including innovation, and the innovation results themselves will also get better and better.

These twelve perspectives are mutually reinforcing, so, for example, as a result of more breakthroughs and new business model innovations being developed and brought to market (#8), the opinion that customers have of the company should improve (#2), etc.

Since at root the innovation process is all about learning, improvement of innovation performance over time is to be expected as you invest effort in developing innovations and at the same time you are investing in improving the process itself.

ninety-two innovation metrics, qualitative and quantitative

The rather massive list below constitutes our complete set. Granted, 92 are already too many, but it’s still possible that there are more, and perhaps some of the ones not included here are the right ones for your organization to use.

So please use this list as a thinking starter, and be open to additional possibilities that may serve your needs better.

The metrics are listed by step in two categories, qualitative and quantitative, followed by transversal and human resources metrics.

• Qualitative metrics often take the form of provocative questions, which are intended to instigate people to think deeply and effectively about the work they’re doing and its future consequences. These do not lend themselves to a statistical form, but they can open up new avenues of discussion which may stimulate new ideas and conceptual frameworks. Most of the metrics suggested for steps 1 – 3 are qualitative. They can be used in two ways:
  o They are very useful as provocative questions in dialog. When a particular aspect of the innovation process is the subject of your discussion, raising these questions can direct the conversation in a fruitful direction.
  o They can also be used in surveys to gather input from larger numbers of people. To use them this way, you would turn them into statements and then ask people to state their degree of agreement / disagreement, with options such as “strongly agree, agree, neutral, disagree, strongly disagree.” This turns a qualitative question into a process that you can use to gather quantitative input, which can be helpful in getting useful
feedback from hundreds or even thousands of people in a very effective format.  

Conversely, the metrics for steps 4 - 7 are mostly quantitative, and they’re natural for statistical collection and analysis. ROI, of course, epitomizes this category. And sales itself is of course the subject of many critically important quantitative metrics.

metrics for step 1: strategic thinking

Qualitative Metrics and Provocative Questions
1. Are we targeting the right parts of our business with our existing innovation efforts?
2. Do we change as fast as our markets do?
3. Are we flexible enough?
4. Is our strategic goal clear enough such that we can translate it into innovation initiatives?
5. How well do our strategies match with the way the market is evolving? (For example, if the industry is moving rapidly into a particular technology, does our organization have the requisite expertise?)
6. Do we have an effective innovation dashboard so we know how we’re doing? (The dashboard is discussed below.)
7. Are we measuring innovation appropriately and adequately?

Quantitative Metrics
8. How much time do senior managers invest in innovation?
9. What is the average time required from development of a strategic concept to operational implementation as an innovation?
10. How much capital do we invest in innovation?
11. How much money do we invest in each type of innovation?
12. What business growth do we expect from the innovation process, in percent, and in dollars?

metrics for step 2: portfolios & metrics

You probably won’t know if you’re using the right metrics for this step until the portfolio starts producing results that you can compare to with your initial expectations. So whatever metrics you start with here are assumptions that will be managed, and adapted, over time.

Qualitative Metrics and Provocative Questions

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2 The Innovation Audit process that we’ve developed at InnovationLabs often includes large group surveys to explore many of these topics.
13. How does our portfolio compare with what we think our competitors may be planning?
14. Do we have the right balance of incremental and breakthrough projects?
15. Are we introducing breakthroughs at a sufficient rate to keep up with or ahead of change?
16. What are our learning brands, the brands that we use for experimentation to push the envelope and track the evolution of the market?
17. Are we developing new brands at an adequate rate?
18. Are our metrics evoking the innovation behaviors that we want from the people in our organization?
19. Are our metrics aligned with our rewards and reward systems? (This topic is discussed in more detail below.)
20. What did we expect our metrics to tell us compared with the actual performance achieved?

Quantitative Metrics
Metrics related to the performance of Innovation Portfolios
21. What is the ratio of capital invested in the early stages vs. return earned in the sales stage?
22. What is the actual portfolio composition in the sales stage compared with planned/intended portfolio composition in the planning stage?

metrics for step 3: research

The purpose of research is to address the questions that have come up in the process of developing innovation portfolios, as well as to expose new perspectives, evoke new concepts, uncover new possibilities, and create new knowledge.

Qualitative Metrics and Provocative Questions
23. How well have we designed our business to meet the tacit dimensions of our customers’ experiences?
24. How good are our models of customer behavior and motivation?
25. How well do we understand the implications and applications of new technologies?
26. How well do we understand the emerging future?
27. How good have our past predictions been at anticipating change?
28. Is our research helping to target the right innovation opportunities?
29. Do we have a broad enough range of models of technology possibilities, tacit knowledge models, and societal trends?
30. Are the ideas that we’re developing reaching across a broad enough range of business needs?
31. How good are we at creating an “open sandbox” that accommodates a wide range of possible concepts and ideas?
32. Are we encouraging people to share their ideas?
Quantitative
33. How many customer groups have we explored?
34. How many instances are there of research results applied in new products, services, and processes?
35. What is the breadth of participation from throughout our organization in the research process (broader is generally better)?
36. How much time has our organization invested in research?
37. How much money has our organization invested in research?
38. How many ideas have we developed through prototyping?
39. How many ideas have been contributed by our staff?
40. What percent of the new ideas that we work on come from outside?
41. How many people inside the organization are participating in the innovation process?
42. How many people from outside the organization are participating in the innovation process?
43. How many ideas were collected in the ‘idea gathering’ system?
44. How many collected ideas from the ‘idea gathering’ were developed further?
45. How many collected ideas from the ‘idea gathering’ were brought to market?
46. What percent of the ideas brought to market came through the strategy-portfolio-research pathway, compared with the percent that originated from the open door idea gathering system?
47. What is the average length of time it takes to get ideas through research and into development?

Qualitative Metrics and Provocative Questions
48. Are we getting enough solid insights and concepts?
49. Is our innovation portfolio balanced correctly?
50. Are we using the right management processes for the different types of innovations that we’re working on?

Quantitative
51. What is the percent of investment in non-core innovation projects?
52. What is the total amount invested in non-core innovation projects?
53. How much senior management time is invested in growth innovation as compared with incremental innovation?
54. What percent of ideas were funded for development?
55. What percent of the ideas in the research process were killed?
Chapter 6: Innovation Metrics

**metrics for step 5: innovation development**

Qualitative Metrics and Provocative Questions

56. Are the right people involved in innovation development?
57. Do we have enough failures to be confident that we’re pushing the envelope sufficiently?
58. Do we have people with sufficiently broad technical competence in all of the relevant explicit and tacit knowledge domains?

Quantitative

59. How fast do we complete and test new prototypes?
60. What is the number of prototypes per new product?
61. How many patents have we applied for in the past year?
62. How many patents were issued in the last year?

**metrics for step 6: market development**

Qualitative Metrics and Provocative Questions

63. How well are we balancing our attempts to reach existing customers compared with new ones?
64. How well do we really understand our customers?
65. Are we positioned properly for changes in the attitudes, beliefs, and ideals of our customers?

Quantitative

66. What is the return on our marketing investments?
67. How many new customers did we add in the last year?
68. What is the growth rate of our customer base?

**metrics for step 7: selling**

Qualitative Metrics and Provocative Questions

69. How well does our sales process match our customers’ needs for knowledge?

Quantitative

70. What is the average age of the products / services we are currently selling?
71. What is our gross sales revenue attributable to innovation?
72. What is our gross sales margin attributable to innovation?
73. What is the number of new products / services that we have launched in the past year?
74. How did expected sales results compare with actual results?
75. How many successful results did we achieve per type of innovation?
76. What cost savings were achieved in the organization due to innovation efforts?
77. How many new customers do we have (by number or by product)?
78. What is the average time to market from research through to sales?
79. What is the level of customer satisfaction with new products / services?

innovation system metrics

transversal and human resources

There are also useful transversal metrics that help us to assess the overall performance of the innovation process, and some that assess human resources and training activities involved in teaching people to become more effective at innovation-related activities.

Quantitative metrics across the entire innovation process
80. Now we can talk meaningfully about ROI. Did our total innovation investment, managed through portfolios, yield appropriate results in terms of sales growth, profit growth, and overall ROI?
81. What is the performance of our business units as innovators?
82. What is the percent of revenue in core categories from new products / services?
83. What is the percent of revenue in new categories from new products / services? 
84. What is the percent of profits from new products / services?
85. What is the percent of new customers from new products / services attributable to innovation?
86. What is the average time to market from research through to sales?
87. What is the level of customer satisfaction with new products / services?
88. What percent of projects were terminated at each stage?

Human Resources and Training Metrics Related to Innovation
89. How many people participated in innovation training?
90. How many people used our online innovation tools?
91. How effective is the linkage between our innovation metrics, the criteria we use to assess performance, and our reward systems?
92. What is the “contribution to innovation” made by individuals, teams, and departments across the entire organization? And is it improving from year to year?

Gasp. And that’s the end of the list.

aligning metrics and rewards

Metric # 19 asks the question, Are our metrics aligned with our rewards and reward systems? The underlying point, of course, is that people in organizations gradually adjust their behaviors to fit the prevailing systems that they’re measured on and rewarded for, so if they’re not measured for their contribution to innovation then
their contribution will probably be less than it could be.

Hence, aligning the innovation system, the metrics, and the rewards is an important piece of work to accomplish.

But it’s rarely easy to measure an individual’s contribution to innovation unless that person happens to be uniquely creative, or is involved in high-profile projects. Innovation almost always involves the efforts of many people working diligently but perhaps quietly, so setting up an innovation reward structure that recognizes the team element is usually preferable to a process that only acknowledges individuals.

But this remains a controversial topic, as some people believe that the only suitable reward system is one that rewards everyone in the firm. Reward for individuals can be seen as divisive.

From a broader perspective, the notion of intrinsic vs. extrinsic rewards can be an important element of this conversation as well. Those who are inspired to probe deeply and find real solutions, and to do so to the highest possible standards, are deeply motivated by what they feel inside. Their interest and commitment is entirely intrinsic; they do this work for the inherent rewards that it brings.

On the other hand, when people are working at tasks because of the need or expectation of external rewards, their commitment is generally not as deep, and the results may not be as good.

This is relevant here because if people are participating in an innovation system because they want to receive some sort of extrinsic reward, a cash prize for example, then over time what we would expect is a general decline in the quality of their participation. In other words, they’re doing it for the “wrong reason.”

Rewards are a challenging topic in many cultures, including in the US, because a great deal of society is set up based on the pursuit of extrinsic prizes. For example, the grades that students receive in school are extrinsic rewards, and when you study the problem deeply, you find that grades can be counterproductive and demotivating. Genuine learning is not related to grades, it’s about increasing knowledge, skill, and competence, but if we focus on the grades and not the underlying accomplishments then we trivialize the efforts of the student by treating the grade as a bribe; and we all know that bribery is a form of corruption.3

The same dynamic applies to innovation rewards. In most situations we recommend against cash awards, and in favor of recognition and appreciation.

Dan Ariely explores these issues in his fascinating study of behavior, Predictably Irrational, and among the themes he delves into is an important distinction between market norms, exchanges for money, and social norms, exchanges and relationships based on community and empathy. He notes, “Money, as it turns out, is very often the most expensive way to motivate people. Social norms are not only cheaper, but often more effective as well.”4

We have found this be entirely true in the realm of innovation – people respond well to genuine appreciation honestly earned, as innovation efforts in organizations

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3 If you wish to read more about this topic, I recommend Alfie Kohn, Punished by Rewards: The Trouble with Gold Stars, Incentive Plans, A’s, Praise, and Other Bribes, Mariner Books, 1999. It’s very good advice for parents, also.

are social and creative endeavors well before they become financial ones.

**dashboards**

As you apply the selected metrics and fine tune them to suit the work and culture of your organization, you’ll also be developing feedback that can be used to help everyone see how well (or not well) the innovation process is working out. Information presented on an Innovation Dashboard, accessible via the web, will show what’s happening across all the steps of the process project by project and in aggregate.

Some information may naturally be withheld from view to protect corporate secrets or to keep vulnerable projects from unwelcome exposure inside the organization, but the more that is shared the better. If people feel that the process is open and accessible they will be inspired to participate; if they feel it’s secretive and closed they generally won’t.

**the last word… choosing**

If you tried to implement all the metrics listed here you’d probably die of frustration before you got even half way across the measurement desert, so it’s obvious that you’ve got to choose some, start working with them, and then gradually learn to fit the most useful ones into your own world. Think selectively, and remember that metrics are a critical part of the learning process, so learning when to measure and how to measure is part of the conversation as well.  

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Please return to InnovationManagement.se for the subsequent chapters of *The Innovation Master Plan* by Langdon Morris.

You can learn more about his work and access additional writings and his blog at www.innovationlabs.com.

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5 Two sources were helpful in preparing this chapter. The first is chapter 10 of Scott Anthony’s *The Innovator’s Guide to Growth*. (Harvard, 2008). The other is a study by Boston Consulting Group called *Measuring Innovation*, prepared in 2006. You can download it at: www.bcg.com/publications/files/2006_Innovation_Metrics_Survey.pdf
About this Book

This book is intended as a companion to my previous innovation book, *Permanent Innovation*. During the four years since *Permanent Innovation* was completed, we’ve continued to refine our understanding of the innovation process through work with many organizations, and we’ve found that senior managers have a continuing interest in guidance in the design and management of their innovation initiatives. *The Innovation Master Plan* addresses many of those needs, and deals with aspects of the innovation process that *Permanent Innovation* didn’t address.

In the course of preparing *The Innovation Master Plan*, I’ve also discovered some opportunities to improve *Permanent Innovation*, and as a result a revised edition is now available.

(You can download *Permanent Innovation* at www.permanentinovation.com)

About the Author

**Langdon Morris**

Langdon Morris is a co-founder and partner of InnovationLabs LLC, one of the world’s leading innovation consultancies. He works with organizations around the world to help them improve their proficiency in innovation.

He is Senior Fellow of the Economic Opportunities Program of the Aspen Institute, Editor of the Aerospace Technology Working Group Innovation Series, Associate Editor of the *International Journal of Innovation Science*, a Contributing Editor and Writer for InnovationManagement.se, and a member of the Scientific Committee of *Business Digest*, Paris. He is formerly Senior Practice Scholar of the Ackoff Center of the University of Pennsylvania and Contributing Editor of *Knowledge Management* magazine.

He has taught or lectured at universities in the US, France, Portugal, Taiwan, and Argentina, including Stanford University, the Ecole Nationale des Ponts et Chaussées and the Conservatoire National des Arts et Métiers, Paris, the University of Belgrano, Buenos Aires, and Chaoyang University of Technology, Taiwan.
“A fantastic piece of work, and a guide you must hold at hand when traveling in Innovation-Land. Use it as a reference in outlining your plan to future growth and profits. The business world has to be different, just start to build it ... with this Master Plan.”

Léopold Demiddeleer
Solvay

“Authentic Leadership among the companies of the 21st century is naturally a commitment to sustainable growth, profit, and image. And this can only be achieved with a complete dedication to sustainable innovation at the core of the organization. Langdon Morris’ intelligent, passionate and inspiring messages in his master plan make sustainable innovation possible. This dynamic, focused and simple process takes us from concepts and ideas to reality. It is hugely important and productive to guide us in creating valuable innovations for our organizations. Langdon is a true innovation leader, and wherever you are in your innovation journey it is wise to follow these best principles.”

Signe Gammeltoft
L’Oréal

“The Innovation Master Plan is another revolutionary innovation masterpiece by Langdon Morris, a framework which brings practicality to the concept of innovation. This book will compel and inspire any executive reader to adopt an innovation culture and framework for their organization in order to survive and succeed in the 21st century.”

Genevieve Bonin
PwC

“The Innovation Master Plan is one of those books that captures your imagination and keeps you grounded in reality at the same time. Langdon Morris describes the driving forces impacting our businesses and the worlds we live in everyday. He exposes how the ‘great ones’ have innovated, and provides one of the most simple and powerful models to transform your business and empower people to be more innovative; altering the innovation landscape. A powerful call to action!”

Jacqueline Byrd, Ph.D.
Creatrix, Inc.

“For anyone who is wrestling with the challenges of innovation in their organization The Innovation Master Plan is a must read. Langdon offers a comprehensive handbook that maps this uncertain territory by asking (and helping you answer) five key innovation questions; Why? What? How? Who? Where? Having taught “Needfinding” and design research methods at Stanford for the last 2 decades, it’s clear to me that this book is a significant contribution to the field that will benefit students and experienced practitioners alike.”

Michael Barry
Stanford University and Point Forward
more praise for

*The Innovation Master Plan*

“I love this book a lot. I can be an innovation leader, because I keep providing my own industrial and educational visions to the related parties. I can be an innovation champion, because I support all kinds of innovation activities in the industrial and academic societies. I can be an innovation genius, because I learn, think and practice all sorts of innovation methodologies. Most of all, I can be a master of innovation.”

Justin Lin, Ph.D.
Chaoyung University of Technology

“Thought-provoking, enjoyable, and indeed inspirational! The key messages here are incisive and convincing. A very worthwhile achievement that deserves the widest readership.”

John Holmes
RathBeau Technologies Limited