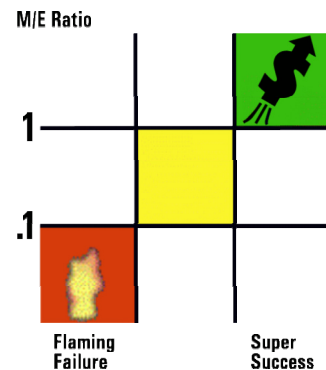


# The Board of Directors; Vital Partner for a VoC Culture

Product Development and Management Association (PDMA)  
9th Annual Voice Of The Customer (VoC) Conference

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*fact-gathering, analytical Marketing to steer the enterprise™*



**The Board of Directors;**

## **Vital Partner for a VoC Culture**

Product Development and Management Association (PDMA)

9th Annual Voice Of The Customer (VoC) Conference

Ralph E. Grabowski, December 5, 2006

### **Abstract**

The counter-intuitive, surprising evidence is in. Super successful enterprises invest at least one dollar and average more than two dollars in the front-end understanding of customer needs, for every dollar invested in engineering. Business disasters invest less than two cents in market research for each engineering dollar. The implication for the Board of Directors is that prudent oversight of a company's affairs must include a commitment to invest significant resources in decisive, upstream marketing and to create a culture of the Voice of the Customer (VoC).

The Marketing/Engineering Investment Ratio™ (M/E Ratio™) was created at the request of the MIT Enterprise Forum as a new metric to guide the marketing budget and staffing.

Twenty questions are posed as a method for the Board and the CEO to establish a VoC culture for steering the enterprise, to inquire about the relevance of the market research, to confirm the caliber of the marketing staff, and to value the quality of their activities.

- Tools to enlist the Board of Directors as your partner
- Twenty questions for the Board to establish a VoC Culture
- Learn the unique formula to budget and staff Front End Marketing
- Counterintuitive data reveals VoC investment for success

### **They said it!**

"Your evidence of the relationship between market research and success is right on!

Dell's M/E Ratio™ is North of 1.5."

Michael S. Dell, Founder, Chairman, and CEO of Dell Computer Corporation

"You are making a terrific statement to Boards of Directors. Boards and CEOs will have to look in the mirror and ask themselves your 'twenty questions'!"

Albert D. Ehrenfried, former Chairman and CEO of Metritape

"Every member of the Board and every CEO should be REQUIRED to look at these results."

Peter Eggleston, ex-Amerinex Applied Imaging

"Now, we have a budgeting tool in the M/E Ratio™!"

Stanley N. Lapidus, Founder, Chairman, and CEO; ITRAN, Cytyc, Exact Sciences, and Helicos BioSciences

"You are a magnificent speaker. You had the entire audience mesmerized."

Robin A. Karol, Ph.D., NPDP, CEO, Product Development and Management Association (PDMA)

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The Board of Directors;

# Vital Partner for a VoC Culture

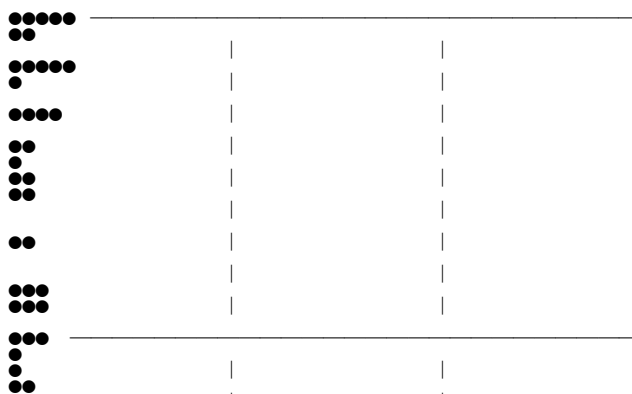
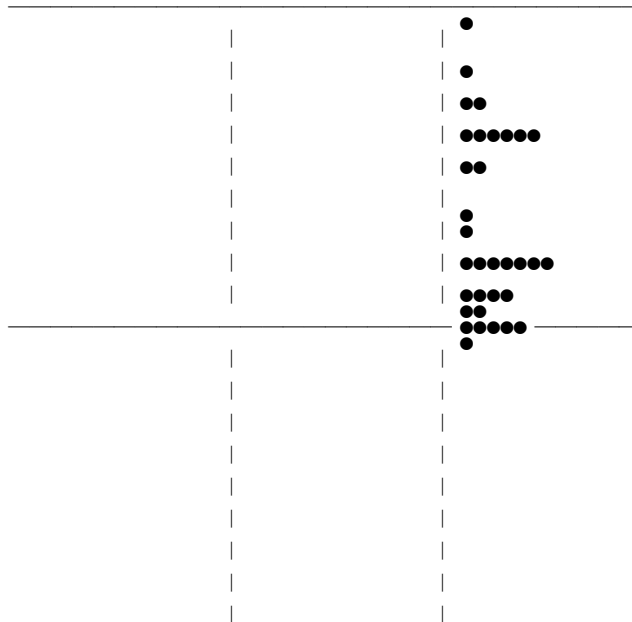
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## Marketing\*/Engineering Investment Ratio™

(\*) excludes promoting and selling



Flaming  
Failure

Neither

Super  
Success

|          |  |
|----------|--|
| Infinity | Balico, balance aid medical device, Grand Prize Winner '05 |
| Infinity | Helicos BioSciences, single-molecule DNA sequencing '03    |
| Infinity | Angstrom Medica, synthetic bone, Grand Prize Winner '01    |
| 9        | MIT \$50K Entrepreneurship Competition                     |
| 6.25     | Litton Medical (ex-BD, ex-DataMedix), mid '80s             |
| 5        | MolecularWare, bioinformatics MIT \$50K Grand Prize '99    |
| 5        | ZippyCool, beverage cooler MIT \$50K Semi-finalist '99     |
| 5        | Invent Resources, product development '93                  |
| 4        | Becton Dickinson, medical - arrhythmia recall '78-'80      |
| 4        | Varian Associates, Component Leak Detector '93             |
| 4        | DIVA (AVID), video editing software '90-'93                |
| 4        | LiquidPiston, combustion engine MIT \$50K Runner-Up '04    |
| 4        | ZippyCool, beverage cooler MIT \$50K Semi-finalist '99     |
| 4        | Adaptive Optics, Div of United Technologies                |
| 3.2      | two machine vision systems, 3.2 '94, 4 '95                 |
| 3        | AFC Cable, armored wiring systems '97                      |
| 2.33     | Exact Labs, colon cancer diagnostics '95-'96               |
| 2        | MarketSoft, enterprise software '98-'02                    |
| 1.5      | Dell Computer, PCs '90s                                    |
| 1.53     | thingworld.com, Internet media '98                         |
| 1        | 2 Juno, free e-mail '96                                    |
| 1.5      | Cytoc, PAP smear preparation '88-'89                       |
| 1.5      | Intuit, financial software '90-'93                         |
| 1.5      | Z2, injection molding flow device MIT \$50K Finalist '99   |
| 1.5      | PSI Environmental, boiler temperature gauge '93-'95        |
| 1.25     | Phoenix Controls (Honeywell), VAV controls '83             |
| 1.25     | Molten Metal (MMT), elemental recycling '91                |
| 1.2      | Monster, employment via the Internet '98                   |
| 1.2      | Aurora Systems, CTI software '90-'94 and precursor         |
| 1.1      | Brooks Automation, semi robots & cluster tools '89-'90     |
| 1.1      | Evidian USA, enterprise software '97-'99                   |
| 1.05     | Reflective Technologies, reflective sportswear '94-'95     |
| 1        | Amana (Raytheon), RadaRange microwave oven '66-'75         |
| 1        | Acugen Software, semi test software '86-'00s               |
| 1        | Lycos, global Internet hub and media '97                   |
| 1        | EMC, enterprise storage '90s                               |
| .9       | Open Market, Internet commerce software '98                |

### Financial and human impact:

> 1 Trillion dollars  
> 400,000 jobs created or lost  
> 150,000 engineering slots developed or gone

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marketingVP.com - results through June 17, 2010  
● multiple data at one M/E Ratio™

|        |  |
|--------|--|
| .1     | Molten Metal '97   |
| .1     | Optra, electro-optic sensors - 88 SBIR '84-'95           |
| .1     | Keithley Metrabyte, data acquisition Taunton MA '93      |
| .1     | MRS Technology, FPD lithography '86-'97                  |
| .1     | Hampshire Instruments, X-ray stepper '91-'92             |
| < .1   | Essential Research, vacuum system CAD '90-'93            |
| .09    | RVA Technology, software '82-'85                         |
| .07    | StarGen, fabless semiconductors '99-'06                  |
| .07    | Orchid BioSciences, genotyping '98                       |
| .07    | Veeco, wafer particulate detector '85                    |
| .07    | Keithley Instruments, Cleveland OH '93                   |
| .06    | GCA '81, semiconductor stepper                           |
| .06    | GCA '92  |
| .06    | Brooks Automation, semi robots '77-'85                   |
| .05    | Hampshire Instruments, '84-'90                           |
| .05    | ITRAN, machine vision '79-'93                            |
| < .05  | Varian Associates, IMPATT microwave oscillators '69      |
| < .04  | Object Databases, software '92                           |
| < .04  | Polaroid, instant photography '90s                       |
| .037   | Machine Technology (MTI), semi track '93                 |
| .033   | Raytheon, RadaRange microwave oven '44-'65               |
| .033   | Micronix, X-ray stepper '81-'87                          |
| .03    | Evidian USA, enterprise software (2) '92-'96 & '00-'02   |
| < .03  | KSR, supercomputers '86-'95                              |
| .02    | Cisco, Internet routers '00                              |
| < .02  | Quarterdeck, operating system (OS) software '90s         |
| .015   | Luminus Devices, LED lighting '10                        |
| .014   | Cetacean Networks, real-time Internet & VoIP '00-'04     |
| .013   | Fusion Lighting, lighting '91-'02                        |
| .013   | Genuity, Internet '98-'00                                |
| .013   | electronics & instrumentation, AMA, '53                  |
| .012   | HyperDesk (FTP), Internet groupware '92-'95              |
| .01    | Becton Dickinson (BD), Telocate patient location '73-'77 |
| .01    | DataMedix (bought BD division), early '80s               |
| .01    | Physical Sciences (PSI), > 200 SBIR '84-'95              |
| < .01  | Xerox, copiers '94-'02                                   |
| .008   | Thinking Machines, supercomputers '90-'94                |
| .007   | Lotus, office software '90s                              |
| .007   | Nortel, telecom '84-'02                                  |
| .004   | Digital Equipment (DEC), PCs & minicomputers '90s        |
| .003   | Applicon, Computer-Aided-Design (CAD) '72-'82            |
| .002   | Lucent, telecom '67-'03                                  |
| < .001 | SAL, X-ray stepper '81-'00s                              |
| < .001 | WANG Laboratories, PCs & minicomputers '84-'91           |
| < .001 | VNCL, network video '93-'99                              |
| Zero   | Thinking Machines '83-'89                                |

**The Board of Directors;**

# **Vital Partner for a VoC Culture**

Product Development and Management Association (PDMA)

9th Annual Voice Of The Customer (VoC) Conference

Ralph E. Grabowski, December 5, 2006

## **Guide to slides 16-40**

### **Tools to enlist the Board of Directors as your partner**

- Don't call it "Fuzzy." My process is portrayed as "Actionable Front End™."
- Reveal the Marketing/Engineering Investment Ratio™ evidence to the Board.
- Help the Board create a continuous VoC process to steer the enterprise.
- Understand the needs and wants of the Board, the Voice of the Board™. Speak seven languages.
- The Board wants growth. Give them growth.
- Timing is everything. Use the corporate planning processes.
- Feed the facts to the Board upon which to develop strategy.
- Shape and achieve the Board's financial and strategic goals.

### **Pose twenty questions for the Board to establish a VoC Culture**

**Prepare answers to questions you should EXPECT from the Board**

**The Minimum Marketing Set™, the Voice of Marketing™**

1. Which market segments will we serve and why, and which, by plan, will we not serve and why?
2. What is the food chain, who are the players, and where is our place in the market?
3. Who is the customer, what is their headache, and who is going to buy the darn thing?
4. Who will be our first three customers, when, and how much will they buy?
5. What is our customer's business model?
6. What benefits will the customer spend money to receive?
7. How will our products affect the customer's business?
8. What is our customer's payback and buying behavior?
9. Who or what is the competition? Hint: "We have no competition" is not allowed!
10. When and how will we iteratively validate 1-9 for a defensible competitive advantage?

**Establish a VoC culture to steer the enterprise**

**The Enhanced Marketing Set™, the Voice of Marketing Management™**

**Develop the budget and staffing for success**

11. How much engineering investment is wasted now?
12. How much do we invest in Front End Marketing now?
13. How much do we WANT to invest in Front End Marketing? See the M/E Ratio™ data.
14. When will we perform Front End Marketing to capture the Voice of the Customer?
15. Who will represent the VoC to the Board of Directors?

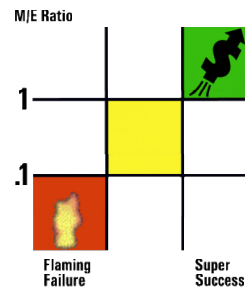
**Confirm the caliber of the market research staff**

16. Who will perform the Front End Marketing?
17. What are their skills, training, experience, and track records in Front End Marketing?
18. To whom will they report?
19. How will Marketing shape and achieve our financial and strategic goals?
20. How will Marketing steer the enterprise?

## The Board of Directors; Vital Partner for a VoC Culture

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"We have received the most succinct bio in the history of this Conference. It is one sentence.

"In thirty-seven years of Front End Marketing, Ralph Grabowski has helped launch new products, new companies, and more than seven new fields; which have grown to become worth over ten Billion dollars."

"I might add that he has **very compelling data.**"      Gerry Katz, Conference Chairman

Thank you, Gerry. My name is Ralph Grabowski and I would like to know you better.

- 1 - Raise your hand if you have ever had a meeting with, or made a presentation to, a member of the Board of Directors?
- 2 - Who was or would be **COMFORTABLE** meeting with, or making a presentation to, a member of the Board of Directors?
- 3 - Who was or would be **UN**comfortable with such a meeting or presentation?
- 4 - How many feel that they do **NOT have enough resources**, budget, or staffing for the front-end Marketing process?
- 5 - Who would like to have a budgeting method or a **better budgeting method?**

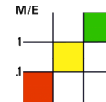
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## Outline

- Tools to enlist the Board of Directors as your partner
- Twenty questions for the Board to establish a VoC Culture
- Unique formula to budget and staff Front End Marketing
- Counterintuitive data reveals VoC investment for success
  - Not "Why," not "How To," but "How Much?"



2

We hope you can take away some tools to enlist the Board of Directors as your partner, and to make you, and the Board, more COMFORTABLE with each other.

Twenty questions will be posed as a method for the Board to guide the CEO and the corporation towards a culture of the Voice of the Customer.

Learn a unique formula to budget and staff Front End Marketing.

Surprising, counterintuitive data reveals the significant investment required to hear the Voice of the Customer – and to achieve business success.

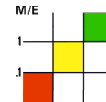
We won't address "Why?" although that will fall out of the data.  
We won't talk about "How To."

We will focus on "**How Much?**"

Why is “How Much” important?

## The Voice of the Board™ (VoB)

- \$\$\$, big \$, big relative \$
- Investment and ROI
- Strategy for financial and strategic plans
- Success (NOT failure)
- Growth, profits, and market capitalization
- Financial ratios and line items
- Budget and staffing



3

Why is “How Much” important? Because **“How Much” is “The Voice of the Board™ (VoB)”**

The definition of “The Voice of the Customer” starts with two elements (\*)

- 1- The customer’s wants and needs
- 2- in the customer’s language

“The Voice of the Board™ (VoB)” has two elements

- 1- The Board’s wants and needs
- 2- in the Board’s language

The Board understands dollars, big dollars, and especially big money relative to other line items  
– which are often expressed as financial ratios

The Board understands Investment, as long as they receive a **Return on Investment (ROI)**

The Board wants growth, profits, and an increase in the stock price  
– which is market capitalization

Above all, the Board understands the difference between success and failure,  
and **they DON’T WANT FAILURE!**

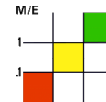
(\*) The first portion of the definition is the “complete” set which, for the Board,  
would include Sarbanes–Oxley compliance and other issues not addressed in this talk.

The balance of the definition, “hierarchy and priorities,” is difficult to apply to “The Voice of the Board™ (VoB),” since, in general, the members of the Board work for other companies, come at it from different perspectives which is why they are on the Board, and because the circumstances and priorities of each Board member and of your company vary.

## Budget and staffing

# How much investment to hear the VoC?

- Too much = waste; too little = business failure
- Is it different or is it a constant?
  - Across industries, waves of innovation?
  - Mature company/industry vs. startup/new field?
  - Big company/big development vs. small?
- Are there low-cost VoC methods that work?
- Any other dimensions to generate success?
  
- The Board has a fiduciary responsibility!



4

How much Budget and staffing?  
How much investment to hear the VoC?

Too much investment means a waste of money – we could have that drop to the bottom line.  
**Too little investment portends business failure;  
making products that customers neither want nor need.**

The Board wants relevant benchmarks!

They want to know, “Is the investment different or is it a constant?”

- Is the VoC investment different across industries, across waves of innovation?
- Is it different for mature companies, for mature industries?
- Or, is there a different investment for a startup or for a new field?
- Is the investment different in a big company with big-dollar developments – versus in a small company with low-dollar developments?

The Board wants to know if there are any low-cost VoC methods that work, because if there are, then let’s stop using those high-cost methods!

The Board wants to know if there are any other dimensions to generate success. What else, besides listening to the Voice of the Customer, is important?

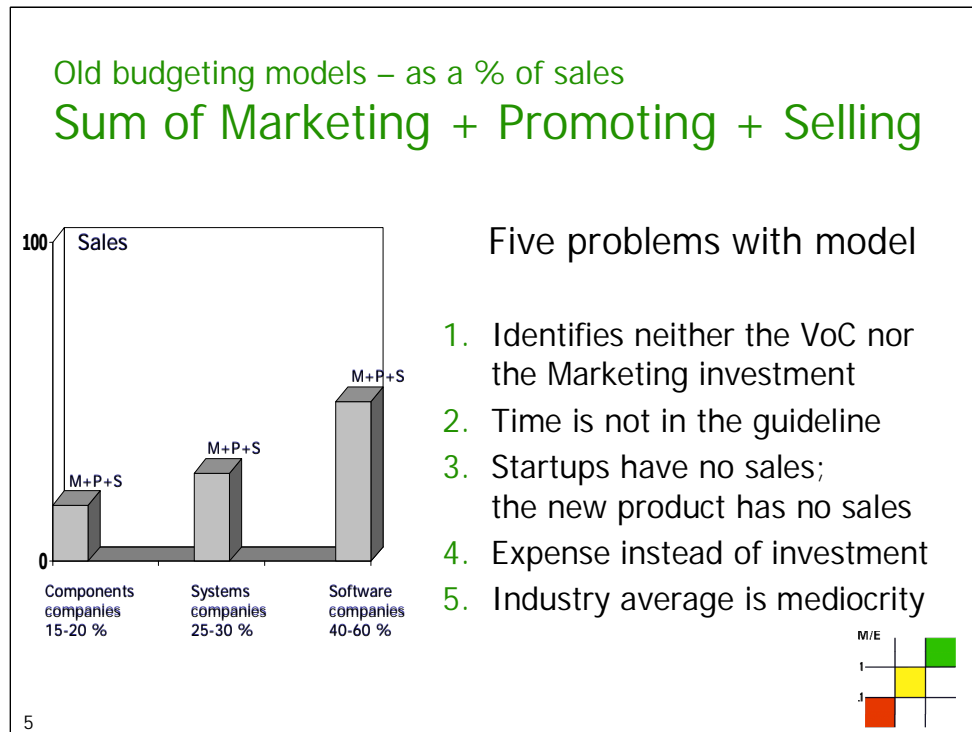
Remember that the Board has a fiduciary responsibility!

---- next slide ---- this text is with slide 5 ----

## **So how much do we Budget for Marketing?**

The old budgeting models use the Sum of Marketing + Promoting + Selling as a percentage of sales. For example, the American Electronic Association (AEA) surveys and publishes this sum every year for a number of separate segments of the electronics industry. Electronic systems companies, to summarize the AEA data, tend spend 25 to 30 percent of sales in Marketing, Promoting, and Selling. Similar surveys are available for other industries.





Becton Dickinson asked me to join a new management team to turn around their Medical Systems Division (BDMS). Their Sum of Marketing, Promoting, and Selling was 27% of sales, right in the middle of the AEA guideline. Our major competitor, Hewlett Packard, spent only 15%. In the twisted language of that model, BD was “out-marketing” HP by nearly a factor of two. However, we were #7 in the market and losing market share precipitously while HP was #1 and pulling away. This made NO SENSE.

I was the Product Manager, Patient Monitoring Systems, commanding about 70% of the Division’s business. I was responsible for the “M,” Marketing, and for steering promoting and selling. When my boss, the Division President, commented, “It seems that you are doing the work of two or three people!” I put together a spread sheet with my duties and time estimates.

He looked at the total and concluded, “You aren’t doing the work of two or three people, Ralph. **There should be ten to fifteen!**” This one role needed so much more than they realized.

I have five problems with the model:

- 1 - It Identifies neither the VoC nor the Marketing investment.  
If the Voice of the Customer is so important, how much investment is needed to hear the Voice? The model does not say.
- 2 - Time is not in the guideline. It does not say **WHEN** we make the VoC investment
- 3 - Startups have no sales; a new product in an existing company has no sales.  
Therefore, you would budget nothing for Marketing. That makes no sense.
- 4 - It is called Expense instead of **INVESTMENT**.
- 5 - Industry average is mediocrity. The Board wants growth and success, NOT mediocrity.  
I am not interested in mediocrity.

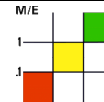
Parse out Marketing

## Investment model – in time

Product is ready ↓

|                       | Investment ratio | Developing the product | Ramping up sales |
|-----------------------|------------------|------------------------|------------------|
| Front End (M)arketing | M/E™             | ✓                      |                  |
| (E)ngineering         | 1                | ✓                      |                  |
| Promoting             |                  |                        | ✓                |
| Selling               |                  |                        |                  |

time →



6

At the request of the MIT Enterprise Forum, a world-wide support organization for enterprise, I developed a new metric to solve these problems, the Marketing/Engineering Investment Ratio™ (M/E Ratio™). This model separates Marketing from the functions of promotion and selling. Formulating a ratio of Marketing to engineering installs Marketing concurrently with engineering, and sizes the Marketing budget with a readily identified number (engineering investment).

1 - Step one is to separate out Marketing from promoting and selling

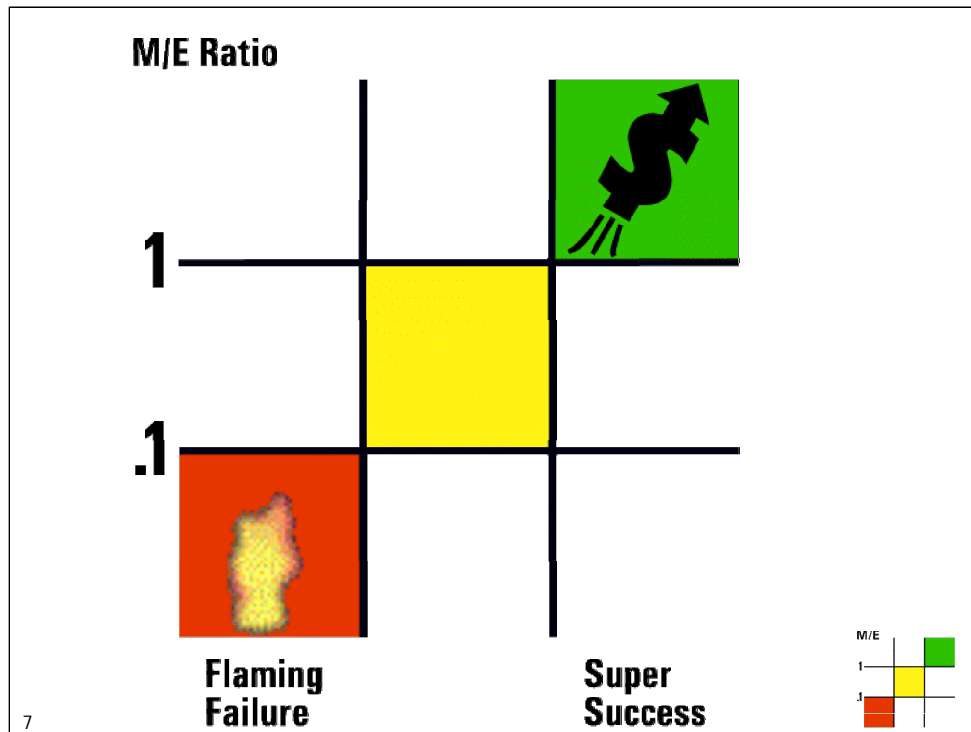
2 - Step two is to add Time to the guideline. The white boxes on the right represent time slots. To the right of the "Product is ready" arrow is the time after you have completed the development the product: when you are ramping up sales. Promoting and Selling occur during this time slot.

3 - Step three is to relate Marketing to Engineering, NOT to sales. Engineering is defined as the investment in developing the product, the sum of R&D plus development – either by product or by company. To the left of the "Product is ready" arrow is the time when you are development the product. Engineering occurs during this time slot. Marketing also occurs during this time slot.

4 - Step four is to call it an Investment instead of an Expense by normalizing engineering investment to one and forming a ratio.

If we normalize engineering to 1, then all we have to do is to find out what the ratio is, the **Marketing/Engineering Investment Ratio™ (M/E Ratio™)**.

5 - Step five is to relate the budget to successes, NOT to mediocrity. The Board wants growth and success, NOT mediocrity.



The graphic on the title slide is there for a reason. Let's take a closer look.

Across the broad landscape of enterprise are "**super successes**" like Dell Computer and Cytoc. There are also business basket cases such as Polaroid, Lucent, and Xerox who have all gone down in flames and/or in bankruptcy. I would call them "**flaming failures**."

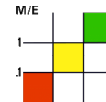
Here is a graphical way to summarize what we might learn from these outcomes. We can picture the relationship between investment in up front Market Research and success or failure. The axis on the left is the ratio of Market Research investment to engineering investment, called the Marketing-to-Engineering Investment Ratio™ (M/E Ratio™), on a logarithmic scale.

**Above (an M/E Ratio™ of) 1**, the enterprise is investing more in Market Research than in engineering. In the right column are super successes. I have called the symbol in the upper right corner the "**money rocket**," because it represents the way successful entrepreneurs like Michael Dell rocket to revenue and to financial success.

**Below (an M/E Ratio™ of) 0.1**, there is essentially no investment in Market Research. In the left column are the failures. The flickering flame in the lower left corner symbolizes the high-flyer "**going down in flames, crashing, and burning**."

## Budget and staffing to hear the VoC How much do Flaming Failures invest?

- Bankrupt, business basket case
  - Polaroid, Thinking Machines, Wang
- Spectacular financial and strategic failure
  - Xerox, Lucent, QuarterDECK
- Gave up, closed the doors
  - GCA, Cetacean Networks, StarGen
- Self-declared, admitted failure – and the author agrees
  - Keithley Instruments, ITRAN
- Role model of failure
  - Boston Globe, “Business lessons from the abyss”
- Author’s business judgment



8

Let's gather data. Let's do Market Research on Market Research.  
What you are about to see is not available in public records.  
It was gathered from private interview and personal visit, digging out their M/E Ratio™.

A vector is determined by the end points. I sought the extremes, starting with bankruptcies and business basket cases – **the spectacular financial and strategic failures.**

For example, from the Boston Globe's 2001 article, "**Business lessons from the abyss,**" written four months before Polaroid declared bankruptcy. Let me read from the Globe:

"It's hard to imagine them now as technology champions of any era, buried as they are under a thick record of disappointment, piles of debt rated as junk, and the pressing weight of corporate desperation. American business icons of another day, charter members of the 1970s Nifty Fifty stock market phenomenon, Polaroid and Xerox ... share a common heyday and current abyss."

The Boston Globe goes on to ask, "Our question: Can the stories of these two companies **teach today's technology elite** anything about the challenge of long-term success?"

Exactly! Let's learn.

---- sidebar references ----

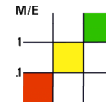
"It's the best business model, the best marketing. I think they've had lousy business models."  
"Business lessons from the abyss" by Steven Syre and Charles Stein, Boston Globe, 6/17/2001

"Indeed, the Polaroid saga resonates in a state that has spawned other rise-and-fall technology titans, from Digital Equipment Corp. to Wang Laboratories Inc., and in an industry where the pace of innovation is accelerating. **The fate of Polaroid may pose a warning for modern-day technologists ...**" "Polaroid preserved" by Robert Weisman, Boston Globe, 10/17/2006

See M/E Ratio™ data for Polaroid, Xerox, Digital Equipment (DEC), and Wang Laboratories.

## Budget and staffing to hear the VoC How much do Super Successes invest?

- Spectacular financial and strategic success
  - EMC, Cytoc, Intuit, Dell Computer
- Spectacular turnaround
  - Brooks Automation, Amana (Raytheon) microwave oven
- Self-declared success – and the author agrees
- Role model of success
  - Dell Computer, Cytoc
- Author's business judgment



9

At the other end of the vector, we gather data from **spectacular financial and strategic successes like Dell Computer, from spectacular turnarounds like Brooks Automation**, and where there is universal industry and trade press agreement.

This is different that the many books and articles written only about what successes do, with no thought if what they do is cause or effect, or if what successes do is also done by failures.

---- next slide ---- this text is with slide 10 ---- How much Front End Marketing investment is required for a for a **MATURE COMPANY** to hear the VoC, and to institutionalize a VoC culture?

In the 1930s, the Varian brothers invented the Klystron, a **VACUUM TUBE** microwave oscillator. About a third of a century later, engineers at Varian's Solid State Microwave Division invented its **SOLID STATE** replacement, as significant a development for the radar and telecommunication fields as the transistor was for general electronics; replacing bulky, hot, unreliable vacuum tubes. In spite of a four-year lead on the competition, it was a **failure in the market**. Varian laid everyone off. **I was one of those engineers.**

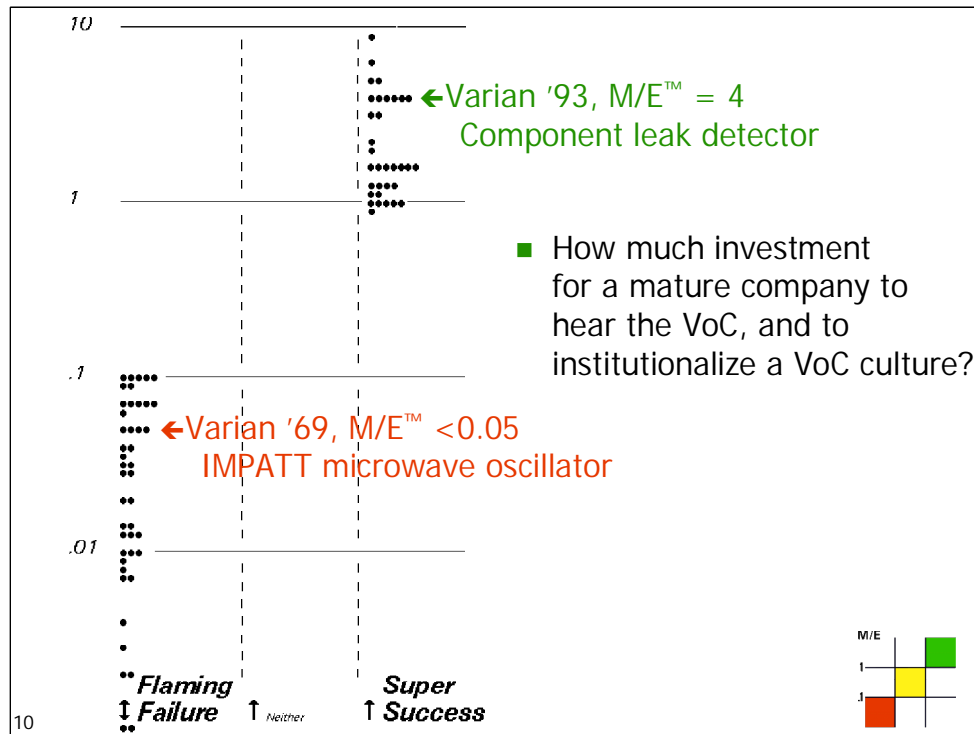
Our so-called Marketing department, suffering from an M/E Ratio™ of less than 0.05, never performed Front End Marketing, reacting only after the finished product was not selling.

In frustration, during the one-month layoff notice, I performed the kind of Market Research that, a quarter-century later, became known as the "fuzzy-front-end," to elucidate fundamental needs in the Voice of the Customer, identifying five new markets, and obtaining signed letters from potential customers saying they would spend \$1,500 for their need, that I knew could be solved by that solid state oscillator we manufactured for \$8. Varian threw the technology in the wastebasket anyway. I went home to my wife and told her that I had been laid off.

My boss, our group leader, went home to his wife and daughters and **COMMITTED SUICIDE.**

(long pause)

This talk is dedicated to the memory of Frank Sterner.



For I have suffered the **AGONY OF DEFEAT**, the personal and emotional grief, the stress, and the professional and financial setbacks from working for failures and being laid off.

I figured out that the quality of my life depended more on the quality of Front End Marketing that was performed – or not performed – and did not depend on technology. For almost nobody understands Marketing. Less than nobody understands technology, appreciates and articulates the value of technology, and knows how to do Front End Marketing.

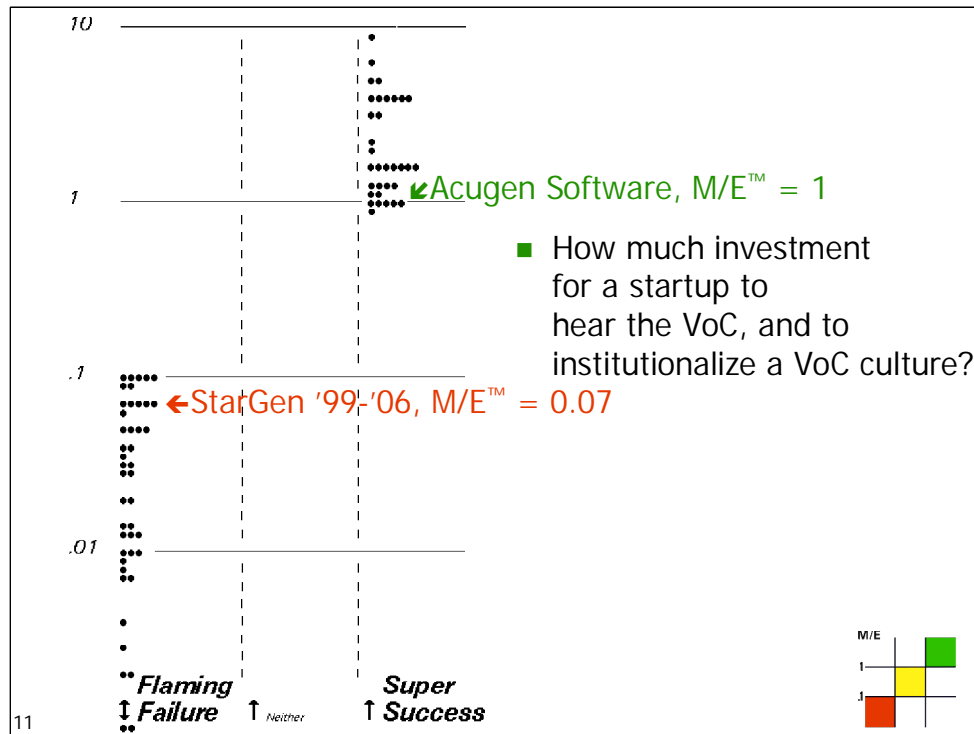
Over the weekend, I went from Solid-State Microwave Circuit Design Engineer to a young company's first marketing and sales manager, recruited by and reporting directly to the Chairman of the Board, where I helped launch the Computer-Aided Design (CAD) and Electronic Design Automation (EDA) fields – both.

For I have tasted the **THRILL OF VICTORY**, the personal and emotional joy, the excitement, and the professional and financial rewards from being in successful companies and from helping my fellow engineers and scientists thrive.

---- Nearly a quarter century later, Varian's Vacuum Division (same company, different Division) was part of the 200-year-old industrial vacuum field, with 50-year-old helium leak detector technology. They created a new product category, the component leak detector, by investing in **nine months of Front End Marketing before beginning engineering**. Varian surfaced the "Voice of the Customer" to develop explicit lists of what engineering should design, and of what engineering should not design. Armed with definitive guidance from Marketing, engineering designed the complex, high-tech, high-priced new product in nineteen days.

It was a **money rocket**. Varian Vacuum's  $M/E \text{ Ratio}^{\text{TM}}$  was 4!

Varian Vacuum's success flowed from one-hundred times higher Marketing investment than the other Varian Division's failure.



How much Front-End Marketing investment is required for a for a **STARTUP** to hear the VoC, and to institutionalize a VoC culture?

In honor of the PDMA and our VoC Conference, I am, today, first publishing this, the 81<sup>st</sup> data point.

---- StarGen, a fabless semiconductor startup, squandered \$56 million in Venture Capital. After seven years, they barely rose to \$5 Million revenue and needed \$20 million more to burn for the next two years until they maybe broke even.

**StarGen suffered from an M/E Ratio™ of 0.07.**

Four months ago, the VCs gave up and began shutting the doors.

My son-in-law was one of their engineers.

He had to go home to my grandson and to my daughter to tell her that he had lost his job!

(long pause)

---- Acugen Software was launched for \$60K, about one-thousandth of StarGen's capitalization, to create semiconductor test software. The entrepreneur maintained an **M/E Ratio™ of ONE**, enabling a depth of customer understanding.

This not only steered his engineering to make a product that was superior in the dimensions that mattered to the customer, but also defined the key levers in the selling process.

---- dig deeper ---- Acugen Software ----

Acugen Software vignette

"The Importance of the Selling Process"

<http://marketingvp.com/payback/acugen/>

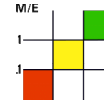
<http://marketingvp.com/guests/sellproc/>

## Startup to world market dominance in 18 months Give the Board growth

- Entrenched competitor 50 direct sales (withdrew)
- Acugen Software
  - Price twice the competition
  - Market share world dominance in 18 months
  - Sales \$ multi-million
  - Equity capital none
- Voice of the Customer engineers the product AND engineers the selling motion

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**ACUGEN** Software, Inc.



### Acugen became a money rocket!

Acugen catapulted to world market dominance and a multi-million dollar revenue stream in 18 months, at twice the price, with NO additional capital, no sales force, no reps, and no distributors! Acugen drove their competitor, with a 50-person direct sales force, to withdraw.

---- next slide ---- this text is with slide 13 ---- Is there a **minimum investment** in Market Research to understand the customer, to speak their language, and to articulate their needs?

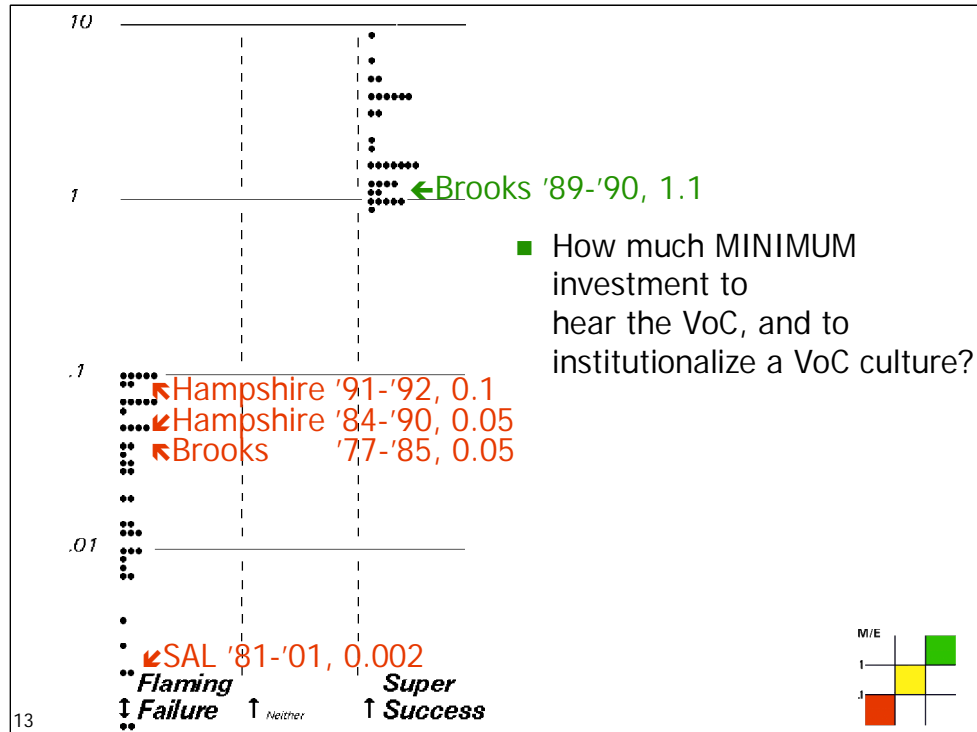
SAL developed the first commercial X-ray lithography machine to print the patterns on semiconductor wafers. X-rays, significantly shorter than light waves, enabled their machines, in the early 1980s, to print 50 nano-meter features, a full 15 generations and 25 years ahead of the fundamental, knife-edge, customer need for smaller transistors. In 1996, the Chairman and CEO asked me why, "We missed ten generations of the market. What did we do wrong?"

I told him, "Between the parent's money, investor money, government money, and customer money, SAL invested over one-half Billion dollars in technology and technical infrastructure without investing as much as \$1 million in Front End Marketing. SAL is suffering from an M/E Ratio™ of 0.002. Let me start a Marketing department for you."

They cleared out a wing of the company for me as VP of Marketing. I started with not even a cardboard box to sit on. One month later, there was a 3-person Marketing department, running; the next 18 months' hiring plan with all the job descriptions in writing, the next 18 months' Marketing task plans, all of the first month's tasks completed, and some of the next 12 months' tasks finished.

He asked me, "Grabowski, how come you haven't gotten more done?" I replied "For fifteen years, SAL has suffered from an M/E Ratio™ of 0.002. Now, for the last 21 business days only, we have temporarily spiked SAL's M/E Ratio™ to 0.13. Let us raise the M/E Ratio™ another factor of 10 or 20, to an M/E Ratio of 1.3 or 2.6, keep it there for two years, and then you can ask me that question."





---- Hampshire Instruments consumed \$75 million in capital to develop X-ray lithography machines, but nobody would buy the darn things. Hampshire's M/E Ratio™ was 0.05. The CEO tried desperately to find out what customers really wanted, doubling their M/E Ratio™ to 0.1. It wasn't enough. They gave up and closed the doors.

Their Founder, Chairman, and CEO, one of the world's most respected physicists, committed suicide.

(long pause)

"I think that your conclusions are correct, Ralph. I'm struck by the singular difference, by the gap in the M/E Ratio™ between the failures and successes. The dichotomy falls right out of the data," concluded Bob Kern, Hampshire's CFO.



---- Brooks Automation pioneered three new fields in the semiconductor fab; with robots to move wafers in the atmosphere, in vacuum, and among process tools called cluster tooling. Brooks units were used between lithography steps, to etch and process the patterns created by the lithography printing. After 12 years, suffering from an M/E Ratio™ of 0.05, they were stagnant and losing money.

The bought themselves back from a corporate parent for \$2.1 million and brought in a new Front End Marketing-oriented CEO, who brought in a new Front End Marketing-oriented VP of Marketing.

Together, they **boosted Brooks M/E Ratio™ by more than a factor of 20, to 1.1,** and held it there for a while.

x100 to x800  
**Give the Board growth**

- Precipitates a semiconductor manufacturing revolution
- Employees x100                      35 to 3,500  
Sales >x150                      \$3.3 million to >\$500 million  
Market value x800                      \$2.1 million to \$1.6 Billion  
Equity capital                      none (until the IPO)
- Voice of the Customer                      engineers the product AND  
engineers the literature



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### Brooks became a money rocket!

Brooks revolutionized the semiconductor industry. Modern semiconductor devices, literally, could not be manufactured without Brooks' cluster tools.

#### The results – **times 100 to nearly times 1,000**

From 35 employees, to 3,500; two orders of magnitude, a factor of one hundred.

The Average Selling Price (ASP) climbed from \$7K to \$700K, two orders of magnitude, a factor of one hundred.

From stagnation at \$3.3 million, sales rocketed to more than \$500 Million, over two orders of magnitude, a factor of one hundred fifty. Brooks' fifty percent Compound Annual Growth Rate (CAGR) from 1991-1995 was double that of their semiconductor equipment field.

The company that they purchased for \$2.1 million in 1989 achieved a market capitalization of \$1.6 Billion, nearly times 1,000 or three orders of magnitude.

And they did it with NO additional capital!

---- sidebar notes ----

Brooks' Chairman and CEO, Bob Therrien, summed up the results in a single word, "Dynamite!" Brooks went public with an IPO in February, 1995.



Basic customer needs and the benefits that Brooks delivered became crystallized, providing customer-oriented direction to engineering.

With a culture of the Voice of the Customer, the customer voice not only engineers the product, but also engineers the literature.

If you get it right, even the pictures, shown here from Brooks product brochure, visually articulate customer wants and needs in the customer's language – the Voice of the Customer. The customer does not say, "Oh, here is their product brochure," but rather exclaims, **"Wow, these are my needs!"**

The pictures will resonate with the customers. Then the pictures will resonate with the editors of the trade journals, who asked Brooks for the photographs to use on the cover of their magazines. Brooks garnered three covers on the three trade journals in their field. You cannot buy trade journal covers!

With that background, let us develop the tools to enlist the Board as your partner.

---- dig deeper ---- Brooks Automation ----

Brooks Automation vignette

<http://marketingvp.com/payback/brooks/>

"An Approach for

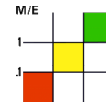
Semiconductor Equipment Firms"

<http://marketingvp.com/download/whosemi.pdf>

Tools to enlist the Board as your partner  
**Don't call it "fuzzy"!**

My process is portrayed as  
"Actionable Front End™"

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### **Don't call it "fuzzy"!**

I can just hear a Member of the Board exclaiming, "What???"  
You mean that I have to give you real money and all I get in return is fuzzy data?"

My process is portrayed as "Actionable Front End™"

---- next slide ---- this text is with slide 17 ----

**"Your evidence of the relationship between market research and success is right on!"**  
Michael S. Dell

The counter-intuitive, surprising evidence is in.

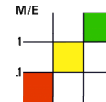
Super successful enterprises invest at least one dollar and average **more than two dollars and fifty cents in the front-end understanding of customer needs**, for every dollar invested in engineering.

**Business disasters invest less than two cents** in Market Research for each engineering dollar. The implication for the Board of Directors is that prudent oversight of a company's affairs must include a commitment to invest significant resources in decisive, upstream Marketing and to create a culture of the Voice of the Customer (VoC).

Tools to enlist the Board as your partner

## Reveal M/E Ratio™ evidence to the Board

- "Your evidence of the relationship between market research and success is right on!" Michael S. Dell
- "Every member of the Board and every CEO should be required to look at these results." Peter Eggleston, ex-Amerinex Applied Imaging



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---- next slide ---- this text is with slide 18 ----

**THIS IS THE FORMULA to budget and staff for Front End Marketing!** A Marketing-to-Engineering Investment Ratio™ of a minimum of one and more likely over two-to-one.

This is the punch line. The magnitude of the upstream Marketing process requires decisive resources. **The enormity of the challenge simply requires it.**

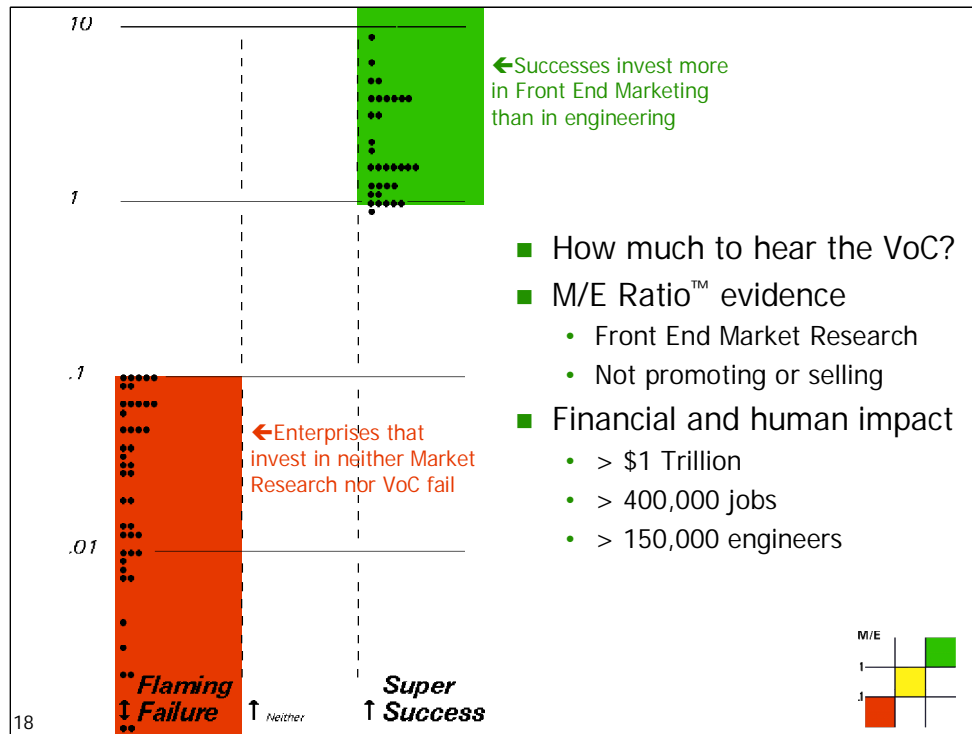
**More than \$1 Trillion** is represented either in value creation by the successes, or in capital squandering by the failures.

The data are consistent over seven different decades, from the 1940s to today, from startups to Fortune 500 firms, and across a broad range of technology-based enterprises; from molecular genomics biotech and semiconductor robots to kitchen appliances and fabric for T-shirts.

The human impact has been more than 400,000 jobs created by the winners, or lost by the basket cases; and more than 150,000 engineering slots fashioned or vanished, including my job in 1969 and my son-in-law's job four months ago.

All the failures had good technology.

All the companies that succeeded on technology alone are in the lower right (Super Success with no significant Marketing investment). There is no data there. While it is hard to prove a negative, the evidence shows that **technology alone does not result in success.**



Neither technology, nor radical technology, nor disruptive technology matters, although you must have technology. Neither innovation, nor radical innovation, nor disruptive innovation matters, although you must have innovation. The **ONLY** thing that matters is decisive investment in Front End Marketing.

Your core competency is **NEITHER your R&D, NOR your technology, NOR your distribution model, NOR your significant capital investment in plant.** The evidence shows that your **ONLY core competency is your significant investment in Front End Marketing;** which develops a depth of customer understanding.

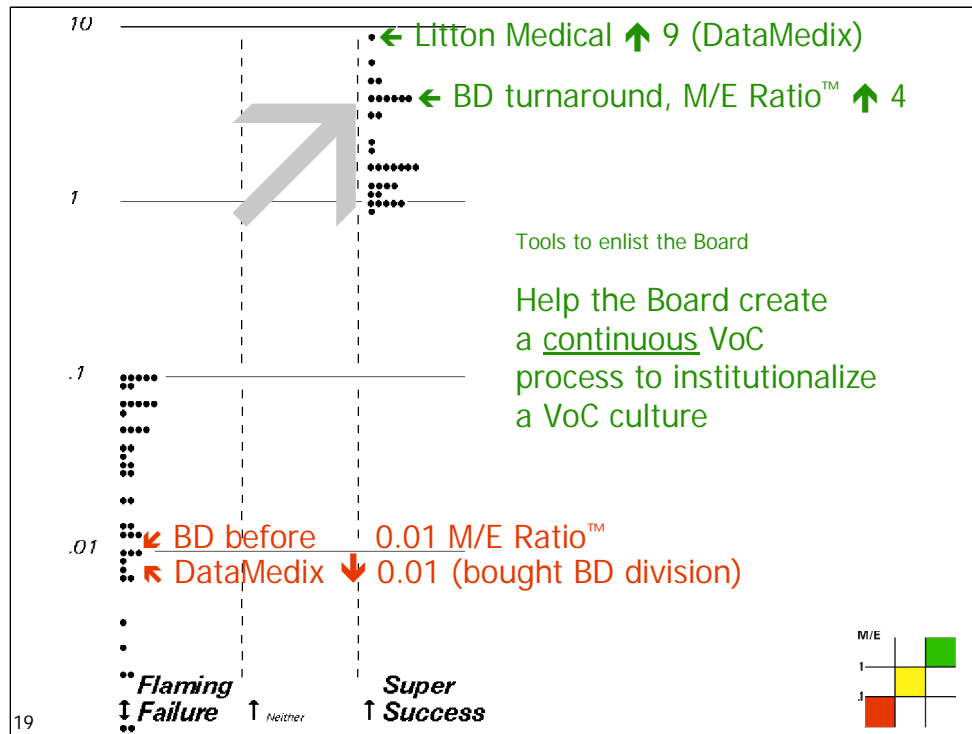
Some have called me one-dimensional. I suggest that the evidence shows that **Front End Market Research is the one and only dimension that matters.** If there were any other dimensions that mattered, there would be scatter in the data. There is no scatter in the data.

There are **NO** low-cost VoC methods that work. There is no data in the lower right.

Once again, we do ourselves a disservice by talking about cost or expense, for the **ONLY** method that works, the higher investment in Front End Marketing, is the **high return on investment.**

There is no Grabowski cluster in the data. Nor is there one for his [gesturing to a non-specific male in the audience] well-crafted method, process, or tool; nor for hers [gesturing to a female in the audience], nor for those of your company's, nor for those of any university professor.

For the evidence shows that it is not any particular well-crafted method, process, or tool that leads to success, but **ONLY A DECISIVE INVESTMENT** in Front End Marketing; the **SIGNIFICANT FUNDING AND STAFFING** of those known, well-crafted methods, processes, and tools.



- BD before the Division turn around, 0.01 M/E Ratio™, a failure.

- BD raised the M/E Ratio™ from 0.01 to 4 and rocketed to success within 18 months.

- DataMedix bought the Becton Dickinson Medical Systems division for \$50 million, a fifty percent premium, pumped in another \$75 million in cash, but dropped the M/E Ratio™ back down to 0.01. They were bankrupt within 18 months.

- Litton Medical bought DataMedix, raised the M/E Ratio™ from 0.01 to 9, and successfully rose from the ashes. (\*)

Same technology, same people, same customers, same market, same products  
– the difference was the investment in VoC.

Help the Board to create a **CONTINUOUS** VoC process!

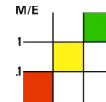
(\*) Jack Derby learned as one of the middle managers during BD's turnaround.

"Very avant-garde, wonderful stuff! I remember a very high [4] M/E Ratio™. I learned the value of Marketing from that success. When I became President of the successor operation, Litton Medical Systems, I raised the Marketing/Engineering Ratio™ even higher, to about 9."

## Tools to enlist the Board as your partner

### Speak seven languages

1. Marketing – The Voice of the Customer (VoC)
2. Promoting
3. Selling
4. Engineering
5. The Voice of the Board™ (VoB)
  - Understand the needs and wants of the Board
6. The Voice of Marketing™ (VoM)
  - Relate the needs and wants of Marketing to the Board
7. The Voice of Marketing Management™ (VoMM)
  - Management – steer the enterprise!



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You already know how to speak “The Voice of the Customer,” or you are learning how to at this Conference.

You already know how to speak the language of Promoting, Selling, and Engineering. That’s four languages.

But to enlist the Board of Directors as your partner, you need to speak **SEVEN** languages.

5 - Number five is “The Voice of the Board™ (VoB)”

--- Understand the needs and wants of the Board

6 - The sixth language is “The Voice of Marketing™ (VoM)”

--- You must relate the needs and wants of Marketing to the Board

7 - The seventh is “The Voice of Marketing Management™ (VoMM)”

the “M” in PDMA is Management

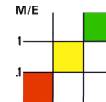
Management is your middle name

**Management – steer the enterprise**



## Tools to enlist the Board as your partner Give the Board growth

- Brooks Automation = \$1.6 Billion
  - M/E Ratio™ = 1.1
  - x100 in employees, x150 in sales
- Cytoc + Exact Sciences = \$4 Billion
  - M/E Ratio™ = 1.5 and 2.33
- "... for the Front End to Enable Growth"
  - Theme of this Conference

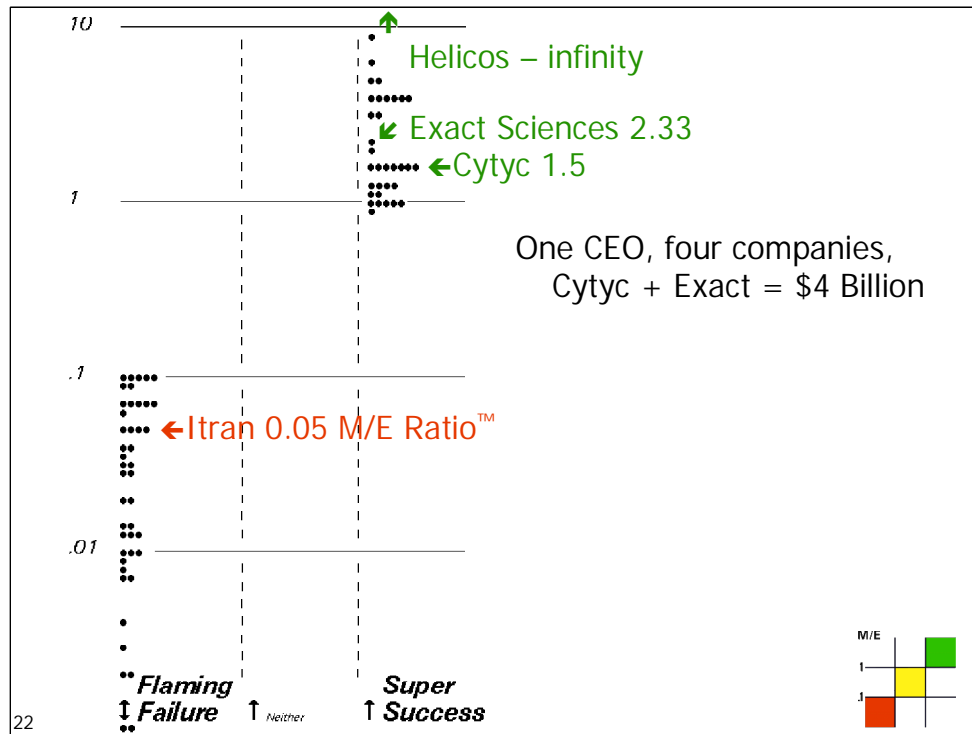


21

Give the Board growth.

A Theme of this Conference is, "... for the Front End to Enable Growth"

Brooks Automation grew by times-100 in employees and in sales  
– and grew \$1.6 Billion in value, nearly times-1,000.



One CEO, four companies:

**Itran, was a failure at a 0.05 M/E Ratio™**, a \$15 million Venture Capital investment resulted in a company with only \$10 million revenue.

Then that CEO launched **Cytyc with a 1.5 M/E Ratio™**. It was a money rocket, achieving \$3.65 Billion market capitalization and approaching 100% world market share, a spectacular success for the investors and the Board.

Enabling 65% more cervical cancer disease detection as "The biggest advance in Pap smear preparation in 50 years,"(\*) Cytyc became a **spectacular success for women**.

Even an M/E Ratio™ of 1.5 was not high enough, because Cytyc made mistakes after missing some cues from the Voice of the Customer.

In his next startup, **Exact Sciences**, the CEO invested **2.33** times as much in Market Research as in engineering (1995-1996), while developing even more complex technology than Cytyc's (world-class molecular genomics technology for colorectal cancer screening).

It wasn't enough. In his next startup, Helicos BioSciences, the CEO invested \$400K in real dollars and nearly a man-year in Front End Market Research before commencing engineering. **Helicos' M/E Ratio™ was infinity!** (end of 2003) Armed with market validation, the CEO raised \$27 million in six weeks, then another \$40 Million (early 2006).

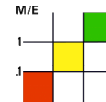
One CEO/Entrepreneur, four companies. The common thread to success was the significant front-end Marketing investment; an M/E Ratio™ greater than one. Just two of his companies, Cytyc and Exact Sciences, created \$4 Billion in market value.

(\*) Mark Schiffman, National Cancer Institute

Tools to enlist the Board as your partner

## Use the corporate planning processes

- Strategic planning process
- Annual budgeting and staffing process
- Market plan
- Marketing department plan
- New product plan (business plan)
- Benchmarking
- Process of building business processes



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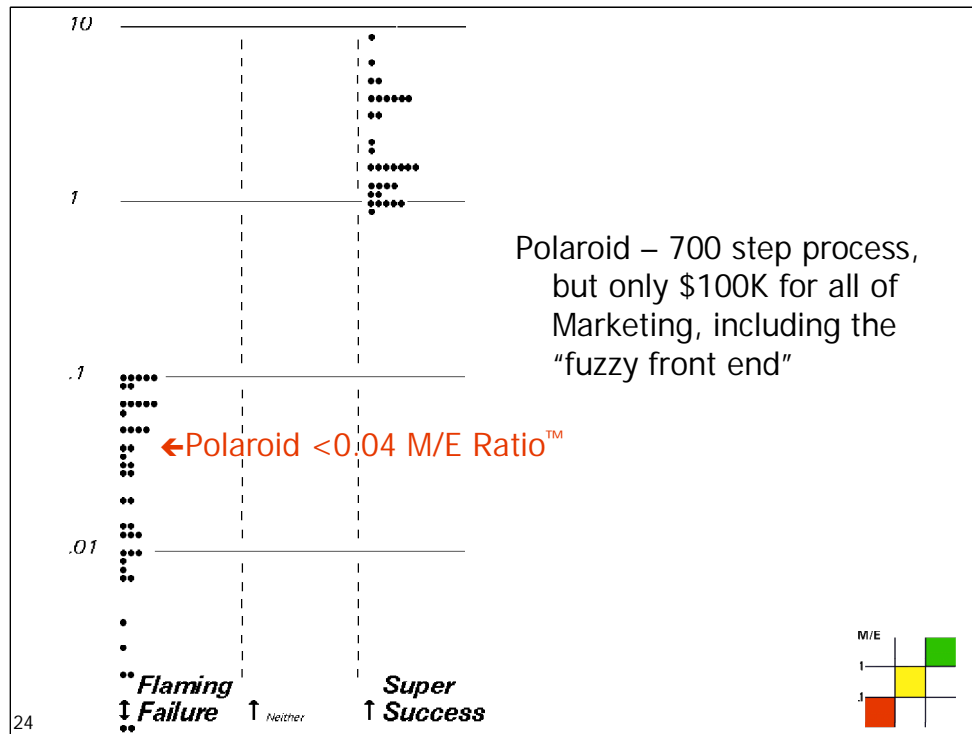
When might you act?

Well, you cannot bypass the CEO to go directly to the Board of Directors. They are a valuable resource to the CEO, their time is limited, and their relationship with the CEO is delicate.

What you CAN do is **use the corporate planning processes!**

Your fact-gathering for strategy, your budget and staffing plans, your new business processes, and your benchmark data **will get to the Board.**

Don't forget that they have a fiduciary responsibility and that this is "The Voice of the Board™ (VoB™)."



For example, Polaroid put together a task force of high level executives who, over a two year period, crafted a 700-step Polaroid New Product Development Process (PNPDP). It codified explicit steps to elucidate the VoC in the “fuzzy front end.”

However, their written budget said, “\$100K should be enough for Market Research,” with no allowance for size or scale of the project. Some Polaroid failures such as the Captiva Camera involved a \$100 million engineering investment.

**Polaroid suffered from an M/E Ratio™ of less than 0.04.**

21,400 employees, including more than 5,000 Polaroid scientists and engineers, lost their jobs.

**Polaroid declared bankruptcy** in 2001, walking away from their retirement program, terminating both health and life insurance benefits for retirees, and **trashing life savings** in the mandatory employee stock option plan under which a percentage of pay was deducted from their checks and awarded in Polaroid shares.

Both Polaroid, a failure, and Varian Vacuum, a super success, performed “fuzzy front end” Market Research to elucidate the VoC. However the singular difference was the lack of Marketing investment, by plan, at Polaroid versus a significant Front End Marketing investment, by plan, at Varian Vacuum.

Recall (from slide 10), that Varian Vacuum's new leak detector was a **money rocket** at an M/E Ratio™ of 4! Varian success flowed from one-hundred times higher Marketing investment than Polaroid’s failure.

Tools to enlist the Board as your partner

## Use the corporate planning processes

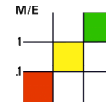
- “We didn't plan it that way [for Cytyc to invest 1.5 times as much in Market Research as in engineering]. We just did what we had to do. In retrospect, it would have been helpful to have such a planning tool.

“Now, we have a budgeting tool in the M/E Ratio™!”

Stanley N. Lapidus, Founder, Chairman, and CEO  
ITRAN, Cytyc, Exact Sciences, and Helicos BioSciences



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“We didn't plan it that way [for Cytyc to invest 1.5 times as much in Market Research as in engineering]. We just did what we had to do. In retrospect, it would have been helpful to have such a planning tool.

**“Now, we have a budgeting tool in the M/E Ratio™!”**

Stanley N. Lapidus, Founder, Chairman, and CEO  
ITRAN, Cytyc, Exact Sciences, and Helicos BioSciences

Cytyc + Exact Sciences created more than \$4 Billion in market value.

---- dig deeper ---- Cytyc ----

Cytyc vignette

“What Do Customers Want?”

“Cytyc's Impact on Women's Health”

“How To Raise \$100 Million”

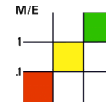
“Marketing, the Bridge for Growing  
from Engineer to Entrepreneur”

<http://marketingvp.com/payback/cytyc/>  
<http://marketingvp.com/papers/buhitech/>  
<http://marketingvp.com/papers/mdg/>  
<http://marketingvp.com/papers/100mil/>

<http://marketingvp.com/guests/bridge/>

Tools to enlist the Board as your partner  
**Feed the Board the facts**

- “Strategy must be based on facts, not on wishes.”  
Dr. Barry Unger, co-founder, MIT Enterprise Forum
- “Turning Insights into Strategies ...”
  - Theme of this Conference



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“Turning Insights **[INTO FACTS]** into Strategies ...” is a Theme of this Conference

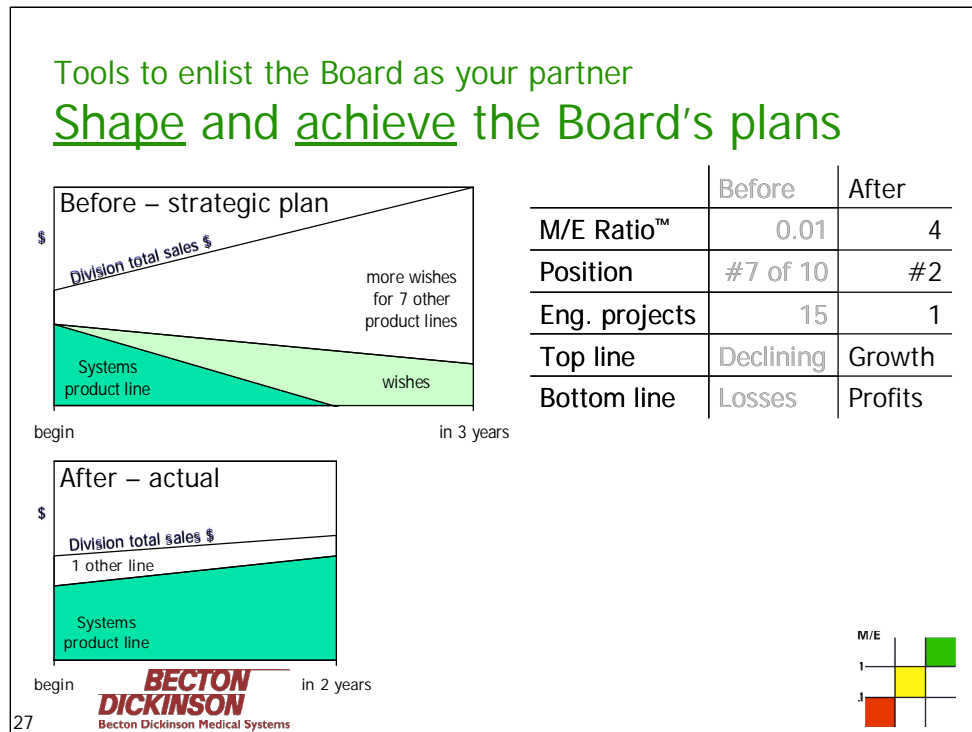
“Market Research is the fundamental intellectual discipline underlying the creation of effective business strategy. **Strategy must be based on facts, not on wishes.**” (\*)  
Dr. Barry Unger, co-Founder of the MIT Enterprise Forum

For example, the Chairman of the Board recruited me for my very first consulting assignment, in 1983, because, while his company had problems, nobody understood the source of the problems, much less solutions. I began uncovering the kind of heavy-duty facts that would compel heavy-duty decisions. On Monday of the last week of the project, I started to ask the CEO a series of questions to test his “ease of decision making.” He bolted up from his chair. I thought he was going to come right across his desk at me!

“Grabowski, **getting the facts is HARD!** Making decisions is easy.  
You get me the facts, Grabowski. I’ll make the decisions.”

That Friday at 9 AM, I laid out the facts across the CEO’s desk.  
Before mid-morning coffee break, he had made all the decisions.

(\*) From Grabowski, “The Board’s Fiduciary Responsibility To Market Research”  
<http://marketingvp.com/download/board.pdf>



Becton Dickinson's Systems' product line was #7 of 10 in the field, losing market share precipitously, and expected to be zero in two years even though there were 15 "Gee-whiz" engineering projects underway to launch new products.

When I joined as Product Manager of that line, the strategic plan, based on wishes, was for me to hold the decline to only one-half over three years, while they wished that seven other product lines would, somehow, expand dramatically.

In my first six months, we raised the M/E Ratio™ from 0.01 to four, investing heavily in Front End Marketing and rigorously examining all fifteen engineering projects against three questions:

1. **What benefits does the customer wish to spend money to receive?** Quantify them.
2. Considering only those, where might we already have, or develop in engineering; a **decisive, defensible competitive advantage?**
3. In which market segment(s) can we deliver the most value to the customer?

#### Armed with customer and market data, I had the facts to

- Shape and achieve a new strategic plan for growth and profitability
- Abandon, shelve, or downsize fourteen out of the fifteen engineering projects as unneeded, ill conceived, or not decisive
- Identify and plainly specify the technology for engineering focus to meet customer needs

Within eighteen (18) more months, in a zero growth market, BD returned to profitability, tripled market share in the US, times-five in Europe from 7% to 35%, from 0.1% to 100% market share in Japan; and **rocketed to #2!**

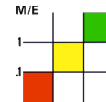
Even while we were dramatically increasing the Marketing investment, by a factor of 400, the sum of Marketing + Promoting + Selling went down by 35%.

Tools to enlist the Board as your partner

## Pose 20 questions for a VoC culture

“Boards and CEOs will have to look in the mirror  
and ask themselves your ‘twenty questions!’”

Albert D. Ehrenfried,  
former Chairman and CEO of Metritape



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Well-placed questions can be an effective method for the Board to guide the CEO and the corporation.

Well-placed questions can also be an effective management tool for **YOU**  
– to guide the Board, the CEO, and the corporation.

---- dig deeper ---- Becton Dickinson Medical Systems ----

“What Do Customers Want?”

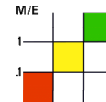
<http://marketingvp.com/papers/buhitech/>



Tools to enlist the Board as your partner

## Pose 20 questions for a VoC culture

- 1 – 10  
The Minimum Marketing Set™ (MMS)  
The Voice of Marketing™ (VoM)
- 11 – 20  
The Enhanced Marketing Set™ (EMS)  
The Voice of Marketing Management™ (VoMM)



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### Pose 20 questions for a VoC culture

They are in two groups of 10. Refer to your printed "Guide."

1 – 10

The Minimum Marketing Set™ (MMS)

The Voice of Marketing™ (VoM)

These are easy, straight forward.

11 – 20 are the **HARD questions**, the ones not always asked.

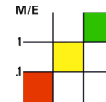
The Enhanced Marketing Set™ (EMS)

The Voice of Marketing Management™ (VoMM)

20 questions for a VoC culture

1 – 10 Prepare answers to questions  
you should EXPECT from the Board

- The Minimum Marketing Set™ (MMS)
- The Voice of Marketing™ (VoM)



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1 – 10 are called  
The Minimum Marketing Set™ (MMS), or  
The Voice of Marketing™ (VoM)

### **Prepare the answers to the questions that you should EXPECT from the Board**

Be ready! Be prepared to **CRISPLY ARTICULATE** the basic Marketing issues.

Above all, make sure that you can identify, "Who Is Going To Buy The Darn Thing?" (\*)

You should **EXPECT** these questions, either directly from the Board or through your CEO.  
If you don't get these questions, prepare your resume and look for another job,  
because your company might be without a sound financial and strategic plan.

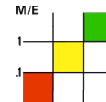
(\*) <http://marketingvp.com/download/whois.pdf>

20 questions for a VoC culture

## 11 – How much engineering investment is wasted\*?

■ \_\_\_\_\_ %

\* Not a failure in engineering,  
but a failure in the market – or of mediocrity



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Take out paper and pencil to answer Question 11 for your company  
– **How much engineering investment is wasted?**

They are not super successes, meaning  
either a home run, or a  
limited investment for limited goals but expectations were exceeded.

“Wasted” means not a failure in engineering, for most engineers will make it work technically ...

but **a failure in the market**, meaning it sells zero or almost nothing,  
or that you missed the market,  
or that you developed technology for which there is no need,  
or that you have been scooped by the competition ...

– **or of mediocrity**, meaning that it may sell some but it really did not matter much to  
either the top line or the bottom line. Considering the engineering investment,  
your company could have done without this project.

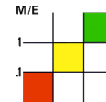
I will not collect your papers. You can self-grade your answer.

20 questions for a VoC culture

## 11 – How much engineering investment is wasted\*?

- “Without Marketing guidance, more than 70% of Xerox’ \$8+ Billion technology investment was wasted!”  
Director, Xerox Corporate Engineering
- “More than 90% was wasted!”  
Xerox Corporate Officer

\* Not a failure in engineering,  
but a failure in the market – or of mediocrity



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I asked the Director of Xerox’ Corporate Engineering who, in the prior eight years at more than \$1 Billion per year, directed more than \$8 Billion of their technology investment.

She admitted, “Without Marketing guidance, more than 70% of Xerox’ \$8+ Billion technology investment was wasted!”

She was being too kind. If you look at Xerox’ disastrous financial and strategic performance over those eight years, you might conclude that over 90% was wasted.

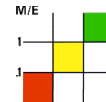
So I checked with a higher-level Corporate Officer who reported to Anne Mulcahy, Xerox’ Chairman and CEO. Yes, he confessed, “**More than 90% was wasted!**”

20 questions for a VoC culture

## 12 – How much do we invest in Front End Marketing\*?

■ \_\_\_\_\_ M/E Ratio™

\* Exclusive of promoting or selling



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Take out paper and pencil to answer Question 12 –

**How much does your company invest in Front End Marketing?**  
(exclusive of promoting or selling)

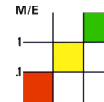
I will not collect your papers.

20 questions for a VoC culture

## 12 – How much do we invest in Front End Marketing\*?

- Xerox' Chief Marketing Officer could not find out after two years of trying
- "I don't know." Patricia Russo, Chairman & CEO, Lucent  
"I don't know." Janet Davidson, Chief Strategy Officer
- "Dell's M/E Ratio™ is North of 1.5!"  
Michael S. Dell, Founder, Chairman, & CEO

\* Exclusive of promoting or selling



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## 12 – How much do we invest in Front End Marketing?

Xerox' Chief Marketing Officer could not find out after two years of trying.

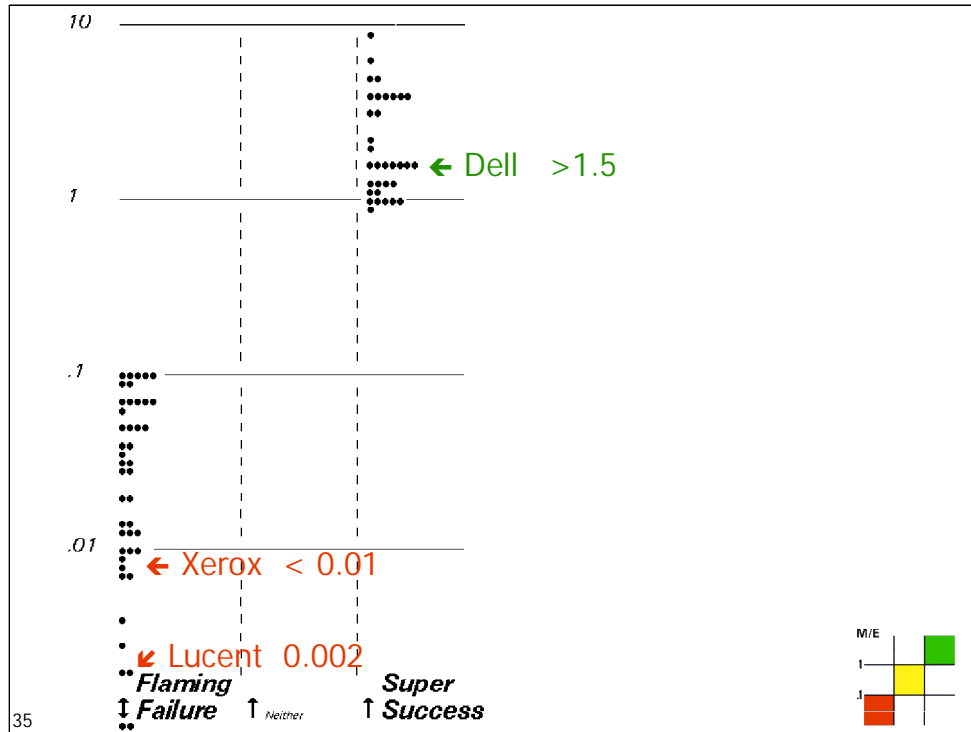
Patricia Russo, Chairman & CEO of Lucent delivered a Spotlight presentation at the MIT Enterprise Forum in Cambridge, MA in 2003 after the Dot-Bust. She spent an hour retrospectively articulating the "tremendous confluence of forces" that has buffeted and is still buffeting Lucent and the telecom industry. So I raised my hand, "How much did Lucent invest in Market Research to proactively understand these forces before they happened and while they were happening, to take command, and to steer her enterprise?"

Patricia Russo starting dancing, weaving, and bobbing around the question.

**"I don't know** how much Lucent invests in Marketing. I know that we do it. I know that we do perform Primary Market Research, but I do not know how much we spend on it. I know that we talk to our customers, but I just do not know how much we invest in Market Research."

Another woman telecom CEO in the audience (name withheld by request) exclaimed, "That was atrocious! Pat Russo danced and danced around your question until finally admitting that she does not know how much Lucent invests in Marketing. I cannot believe that she does not know how much she is spending on Marketing or on Market Research. As CEO, I always know the numbers; including the Market Research investment. It is no wonder that Lucent is in trouble."

Upon returning to her office, Patricia Russo asked her Chief Strategy Officer, Janet Davidson, the woman responsible for gathering the facts upon which to develop strategy. Janet admitted to Pat, **"I don't know.** I just can't put my hands on that number and I have no way to get it."

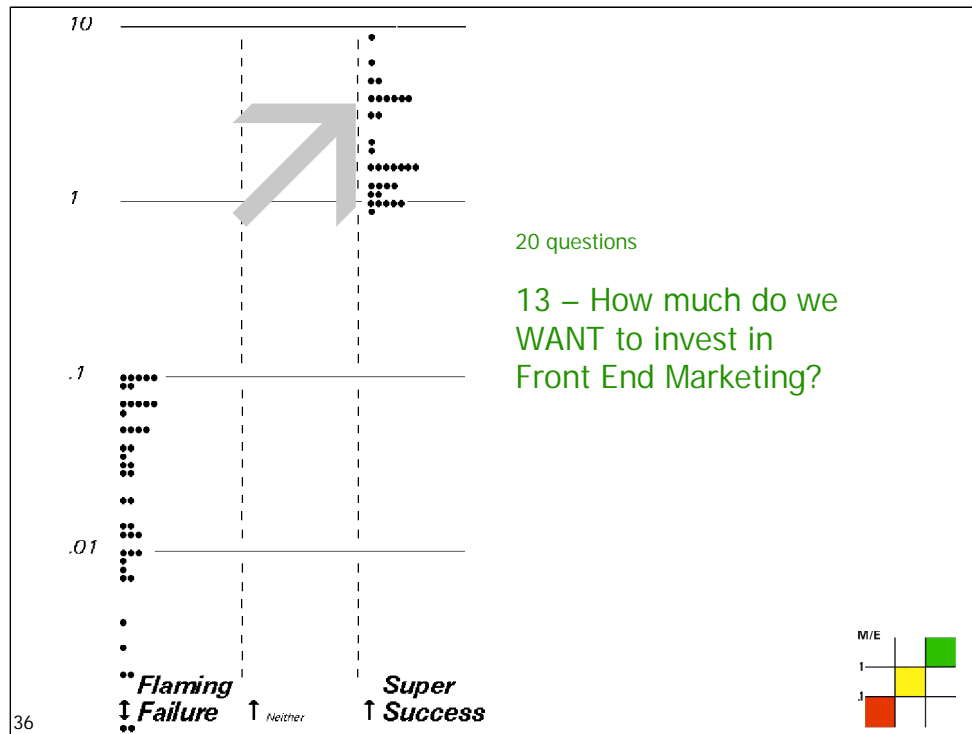


Michael S. Dell, Founder, Chairman, & CEO, in the same room and same venue as Patricia Russo of Lucent, delivered a Spotlight presentation at the MIT Enterprise Forum (in 1998), speaking for an hour on how his company is **absolutely driven by customer data**.

So I raised my hand, "How much does Dell invest in Market Research to collect customer data?"

Michael Dell immediately replied, "**Dell's M/E Ratio™ is North of 1.5!**"

Here's the data.



### 13 – How much do we WANT to invest in Front End Marketing?

Lay out the data in your printed "Guide" as you ask the question.

[With Laser pointer in the lower left sector, below an M/E Ratio™ of 0.1]  
I cannot see a Board member saying, "I would like us to NOT invest in Front End Marketing and for our company to become a failure. I want to be down there, at a low M/E Ratio™, with all the other failures. I'm a loser."

NO! He will draw a line **up here**.

**[Laser pointer in the upper right sector, above an M/E Ratio™ of one.]**

### There is your budget!

The first time I used the data this way was in a session with a Division President and his top five executives. He took out his pencil, drew that arrow, then without saying a word, left the room. He returned a minute later, towing his HR Director, and threw a sheaf of a company form on the table. He said, "These are personnel requisitions. We are filling them out for **Marketing staff** and I am going to sign them."

The second time I used the data this way was in a session with the Chairman of the Board and CEO of a second company. He drew the line and said, "I want us to be a ten! Grabowski, **draw up a hiring and staffing plan for Marketing.**"



20 questions for the Board for a VoC culture

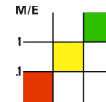
## 14 – When will we perform Front End Marketing?

"When you make the market research investment is key.

There is no point in doing market research after the product is developed.

Market research must be done up front!"

Seth Taylor, Ph.D., Grand Prize Winner  
MIT \$100K Entrepreneurship Competition



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Question 14 is tricky. When will we perform Front End Marketing?

You cannot answer it, "We will perform Front End Marketing on the back end."  
That makes no sense.

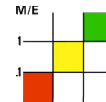
The only answer is **"We will perform Front End Marketing on the Front End."**

Then you can get on with it.

20 questions for a VoC culture

## 15 – Who will represent the VoC to the Board of Directors?

- ✓ Scientific Board of Advisors
- ! Marketing Board of Advisors  
VoC process, Front End process, methods, and tools
- ! Customer Board of Advisors
  - ! CEOs, not just a User Group  
(B-to-B example)



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Many companies already have a Scientific Board of Advisors, representing technology to the Board.

However, we now know that the depth of customer understanding, not technology, is a company's only core competency.

### 15 – Who will represent the VoC to the Board of Directors?

How about a **Marketing Board of Advisors** to represent  
--- VoC process, Front End process, methods, and tools

Why not a **Customer Board of Advisors**

- For an example, in a Business-to-Business company,
- Customer CEOs to represent fundamental customer problems and direction, not just a User Group

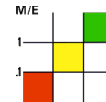
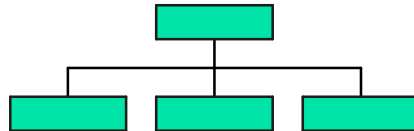
20 questions for a VoC culture

## 16 – 18 Confirm the caliber of the Front End Marketing staff

16 – Who will perform the Front End Marketing?

17 – What are their skills, training, experience, and track records in Front End Marketing?

18 – To whom will they report?



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16 – **Who** will perform the Front End Marketing?

Sales people, Engineering?

Who will create the customer requirements, the Market Requirements document?

Sales people, Engineering?

Who will capture and articulate the Voice of the Customer?

17 – What are their **skills, training, experience, and track records** in Front End Marketing?

Engineering staff are well trained in engineering. Period.

How many times have we seen highly educated and trained Engineering and Sales people placed into Marketing roles because they performed well in engineering or sales, but without any skills, training, or experience in Front End Marketing?

18 – To whom will they report?

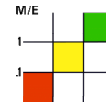
To Sales? To Engineering?

20 questions for a VoC culture

## 19 – 20 Establish a VoC culture to steer the enterprise

19 – How will Marketing shape and achieve our  
financial and strategic goals?

20 – How will Marketing steer the enterprise?



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19 – How will Marketing **shape and achieve our financial and strategic goals?**

--- What will YOU do to shape and achieve the Board's financial and strategic goals?

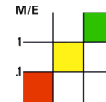
**20 – How will Marketing steer the enterprise?**

--- Do you have the influence?

--- What will you do to acquire and exercise the influence?

## Take-away

- Tools to enlist the Board as your partner
- 20 questions to pose for a VoC culture
- Evidence reveals VoC investment for success



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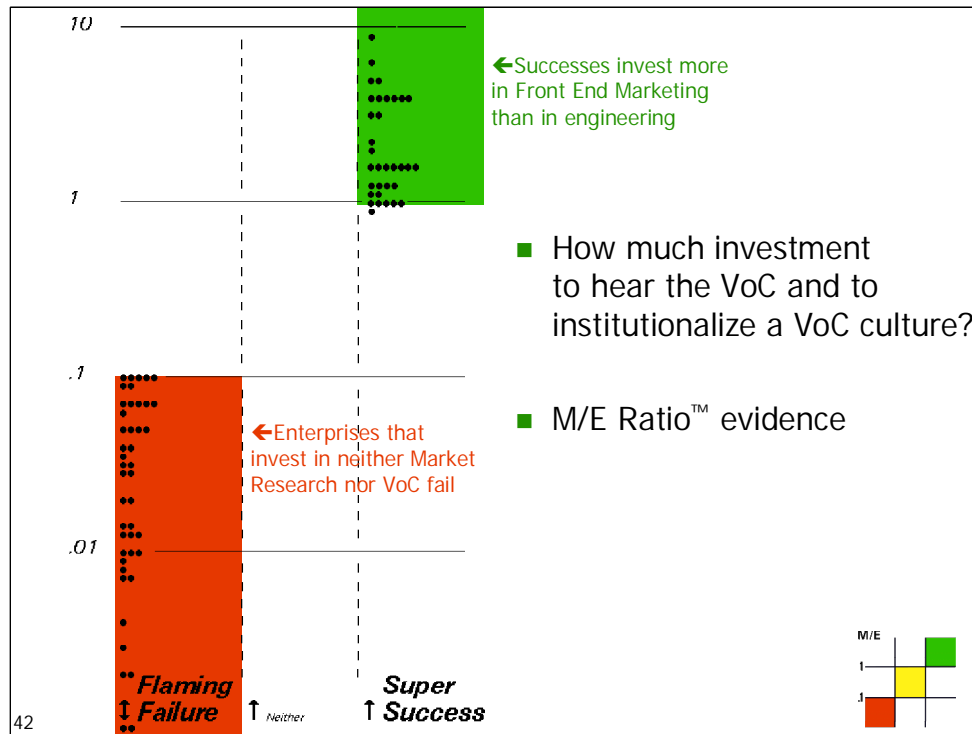
We hope you can take away tools to enable you to be more comfortable with the Board, and to enlist the Board of Directors as your partner in a VoC culture.

You can pose 20 questions for a VoC culture  
– to guide the Board, the CEO, and the corporation.

The counter intuitive, surprising evidence is in. Success follows a commitment to invest significant resources in decisive, upstream marketing and to create a culture of the Voice of the Customer (VoC).

### **Take away THE FORMULA to budget and staff for Front End Marketing!**

A Marketing-to-Engineering Investment Ratio™ of a minimum of one and more likely over two-to-one.



The cause of failure is now known;  
inadequate budget and staffing for the Front End Marketing process.

**The path to success is illuminated.**  
[Laser pointer in the upper right sector, above an M/E Ratio™ of one.]

Enjoy the ride.

Thank you.

---- dig deeper ----

"Who Is Going To Buy The Darn Thing?" <http://marketingvp.com/download/whois.pdf>

"The Board's Fiduciary Responsibility  
To Market Research" <http://marketingvp.com/download/board.pdf>

Investment evidence & research methods <http://marketingvp.com/invest/>

Acugen Software <http://marketingvp.com/payback/acugen/>  
Brooks Automation <http://marketingvp.com/payback/brooks/>  
Cytac <http://marketingvp.com/payback/cytac/>

"What Do Customers Want?" BD & Cytac <http://marketingvp.com/papers/buhitech/>  
"Cytac's Impact on Women's Health" <http://marketingvp.com/papers/mdg/>  
"How To Raise \$100 Million" <http://marketingvp.com/papers/100mil/>

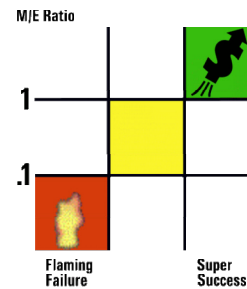
"Marketing, the Bridge for Growing  
from Engineer to Entrepreneur" <http://marketingvp.com/guests/bridge/>  
"The Importance of the Selling Process" <http://marketingvp.com/guests/sellproc/>

"An Approach for  
Semiconductor Equipment Firms" <http://marketingvp.com/download/whosemi.pdf>

## The Board of Directors; Vital Partner for a VoC Culture

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9th Annual Voice Of The Customer (VoC) Conference  
December 5, 2006

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