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Who Is Going To Buy The Darn Thing?

Invest MORE IN MARKETING Than In Engineering To Find Out!
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<http://marketingVP.com/download/whois.pdf>

Why do some new products take off, while others don't sell at all? What is the origin of super success or flaming failure? Marketing is a process of ascertaining needs which customers are willing spend money to satisfy, thus guiding engineering to design the right products. How much shall we invest in marketing to enable commercial success, and when?

A new metric has been developed to answer these questions, 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).

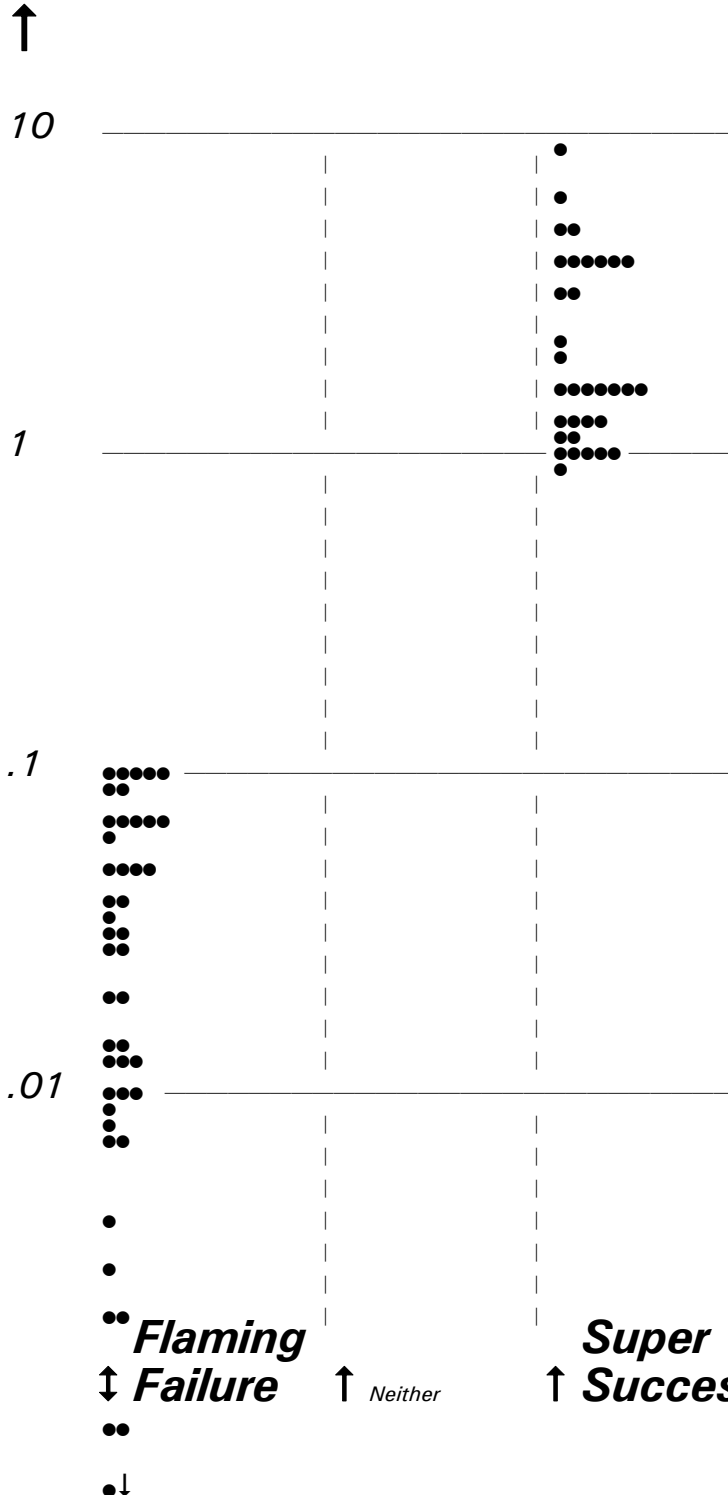
The IEEE will hear evidence to confirm the recommendation that technology-based enterprises invest MORE IN MARKETING than in engineering. Super successes are seen in this survey with an average M/E Ratio™ of greater than 1, investing more than one dollar in marketing (exclusive of promoting and selling) for every dollar invested in engineering. Every flaming failure suffers from a M/E Ratio™ of 0.1 or lower.

Examples will be revealed from diverse technologies; software, machine vision, medical, semiconductor equipment, and instrumentation, to deliver practical advice on dealing with the pitfalls of new ventures. The implication for technology-based enterprises is a fundamental shift in management attention and investment commitment toward decisive, up-front marketing.

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Marketing*/Engineering Investment Ratio™

(*) excludes promoting and selling



- Infinity Helicos BioSciences, single-molecule DNA sequencing '03
- Infinity Balico, balance aid medical device, Grand Prize Winner '05
- Infinity Angstrom Medica, synthetic bone, Grand Prize Winner '01
- 9 MIT \$50K Entrepreneurship Competition
- 9 Litton Medical (ex-BD, ex-DataMedix), mid '80s
- 6.25 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
- 1.5 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 '96
- 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 December 5, 2006
 ●● 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, semiconductor stepper
- .05 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
- .033 Evidian USA, enterprise software (2) '92-'96 & '00-'02
- < .033 KSR, supercomputers '86-'95
- < .03 Cisco, Internet routers '00
- .02 Quarterdeck, operating system (OS) software '90s
- .015 Cetacean Networks, real-time Internet & VoIP '00-'04
- .014 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
- .002 SALL, X-ray stepper '81-'00s
- < .001 WANG Laboratories, PCs & minicomputers '84-'91
- < .001 VNCL, network video '93-'99
- Zero Thinking Machines '83-'89