

**strategy+business** presents

THE CUSTOMER CONNECTION:

# THE GLOBAL INNOVATION 1000

**SPEAKER:**

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# Barry Jaruzelski is a co-author of the annual Innovation 1000 Study and one of the leaders of Booz Allen's Innovation Team



**Barry Jaruzelski**  
**Vice President &**  
**Lead Marketing Officer**  
**New York**

Mr. Barry Jaruzelski is a New York-based Vice President who leads Booz Allen Hamilton's work for high technology and industrial clients. He specializes in corporate and product strategy and the transformation of core innovation processes. Barry also is the firm's Lead Marketing Officer and is responsible for Booz Allen's marketing function worldwide.

A recognized thought leader, Barry is frequently quoted in publications like *The Wall Street Journal*, the *Financial Times*, and *The New York Times* on the technology industry and the challenges of innovation. He often appears as an expert commentator on *ABC News*, *CNBC*, and the *BBC*. He has been a guest lecturer at Columbia, Tuck, and MIT Sloan business schools.

Barry is a three-time recipient of Booz Allen's Professional Excellence Award, which was given in recognition of outstanding and innovative client service on assignments for Lucent, GE Aerospace, and for development of the Commercial Strategic Wargame service offering. He has also received the firm's Eagle Award for his outstanding contributions to Booz Allen.

Barry is a board member of VCG/Boardnet USA, a member of *BusinessWeek's* Innovation Advisory Board, and a member of the panel of judges for *The Wall Street Journal's* annual Technology Innovation Awards.

# Booz Allen's Innovation 1000 Study has garnered global recognition and been recognized for advancing innovation

## Selected Media Coverage Highlights

- ▶ Covered by ABCNews and MSNBC television
- ▶ Featured on NPR radio across the US and by BBC Radio in the UK
- ▶ Cited in over 170 publications across 27 countries

### Select publications



## Furthering the Innovation Dialogue

### 2005

- ▶ Initiated study to better understand how organizations can maximize their return on innovation investment
- ▶ Found no statistical relationship between R&D spending and key measures corporate success

### 2006

- ▶ Confirmed lack of relationship between R&D after adding additional data (e.g., patent records) and analyzing using more complex methods
- ▶ Defined “High Leverage Innovators” who produced significantly better results per R&D dollar than their industry peers
- ▶ Awarded “2006 Special Achievement Award for Advancing Innovation” by Innovate Forum

### 2007

- ▶ Examined the connection between performance and the elements of innovation strategy, including customer focus and alignment of corporate and innovation strategies

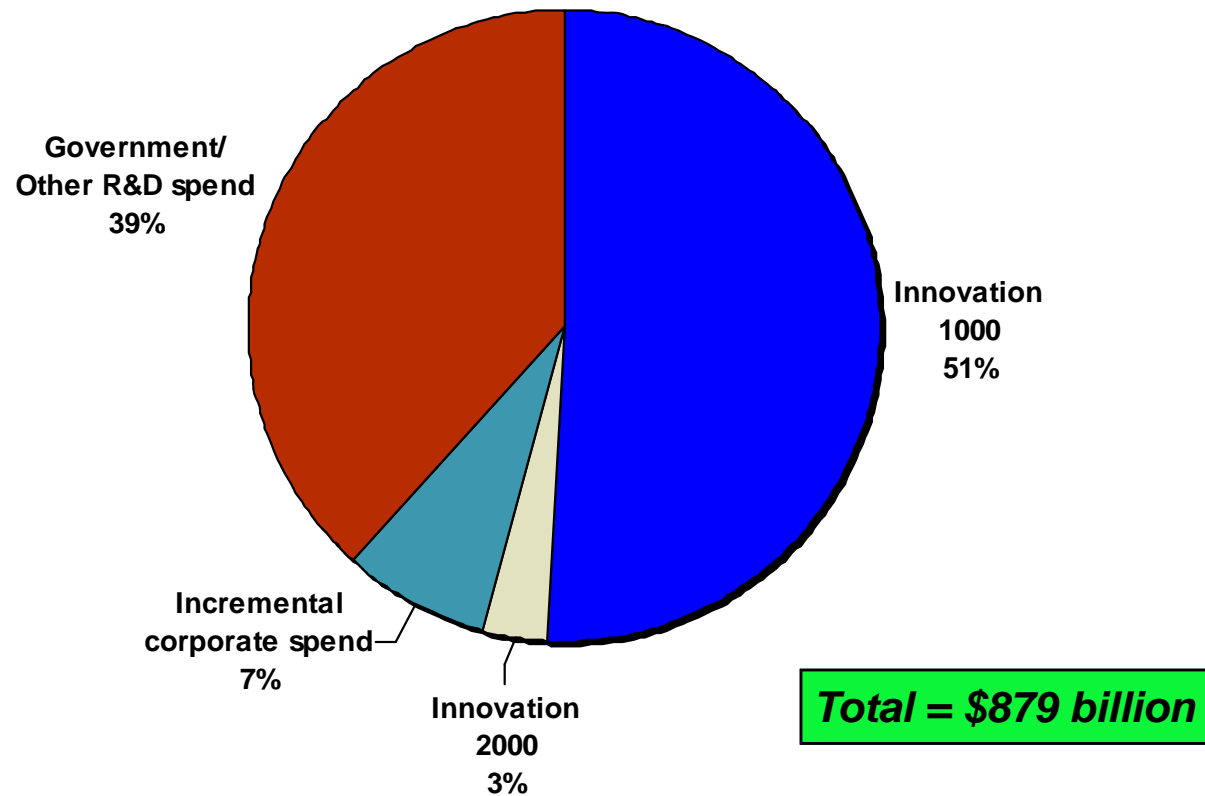


## Key findings of this year's Innovation 1000 Study:

- ▶ **Spending on R&D accelerated among Innovation 1000 firms over last year**
  - 10% increase in absolute spending
  - Further raising imperative to ensure the effectiveness of R&D spending
  
- ▶ **Three distinct innovation strategies were identified**
  - None of them are inherently superior to each other in financial results
  - The quality of the alignment of innovation & business strategies was key
  
- ▶ **For each of the three innovation strategies, companies that were more focused on customers are more financially successful than their peers**
  
- ▶ **Beyond strong customer focus and tight alignment of business & innovation strategies, building targeted capabilities for the selected innovation model is key**

# Total global R&D spending reached \$879 billion in 2006

## Share of Global R&D Spend - 2006



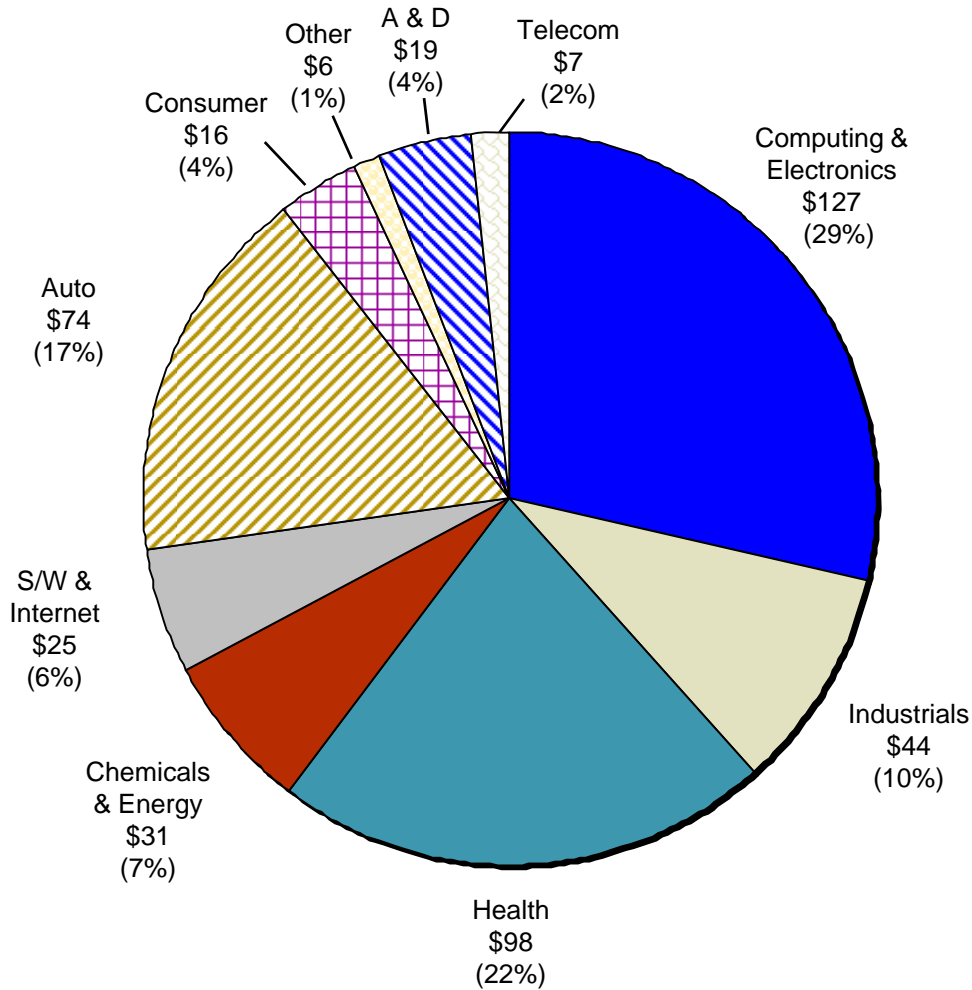
## Innovation 1000 captures 84% of corporate & 51% of all R&D spend

Notes: 1) OECD list includes all OECD countries plus Russia, China, South Africa, Israel Singapore 2) Largest country adjustments: China, South Korea, Russia, Israel, South Africa  
3) Excludes adjustment for potential R&D double counting by not-for-profits and academic institutions with government

Sources: OECD, World Bank, International Monetary Fund, Booz Allen Analysis

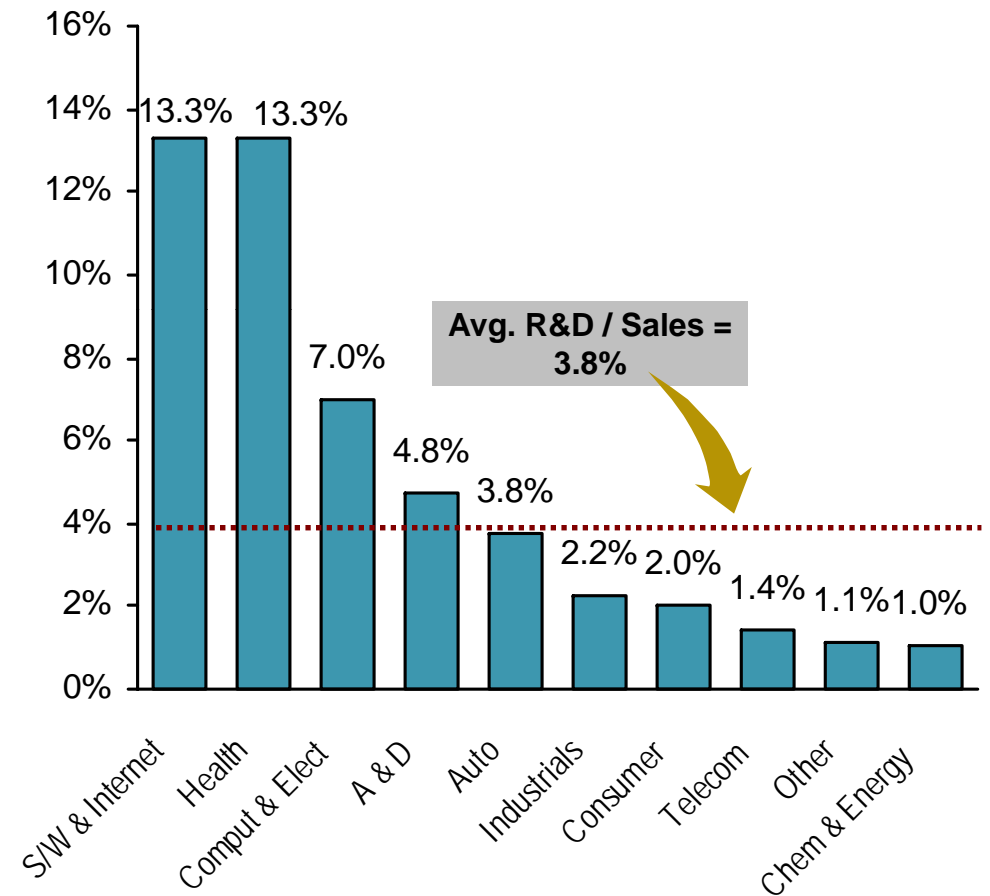
# Innovation 1000 R&D spend grew 10% to \$447 million, 75% of which is spent by high tech, health & auto companies

## R&D Distribution by Industry - 2006



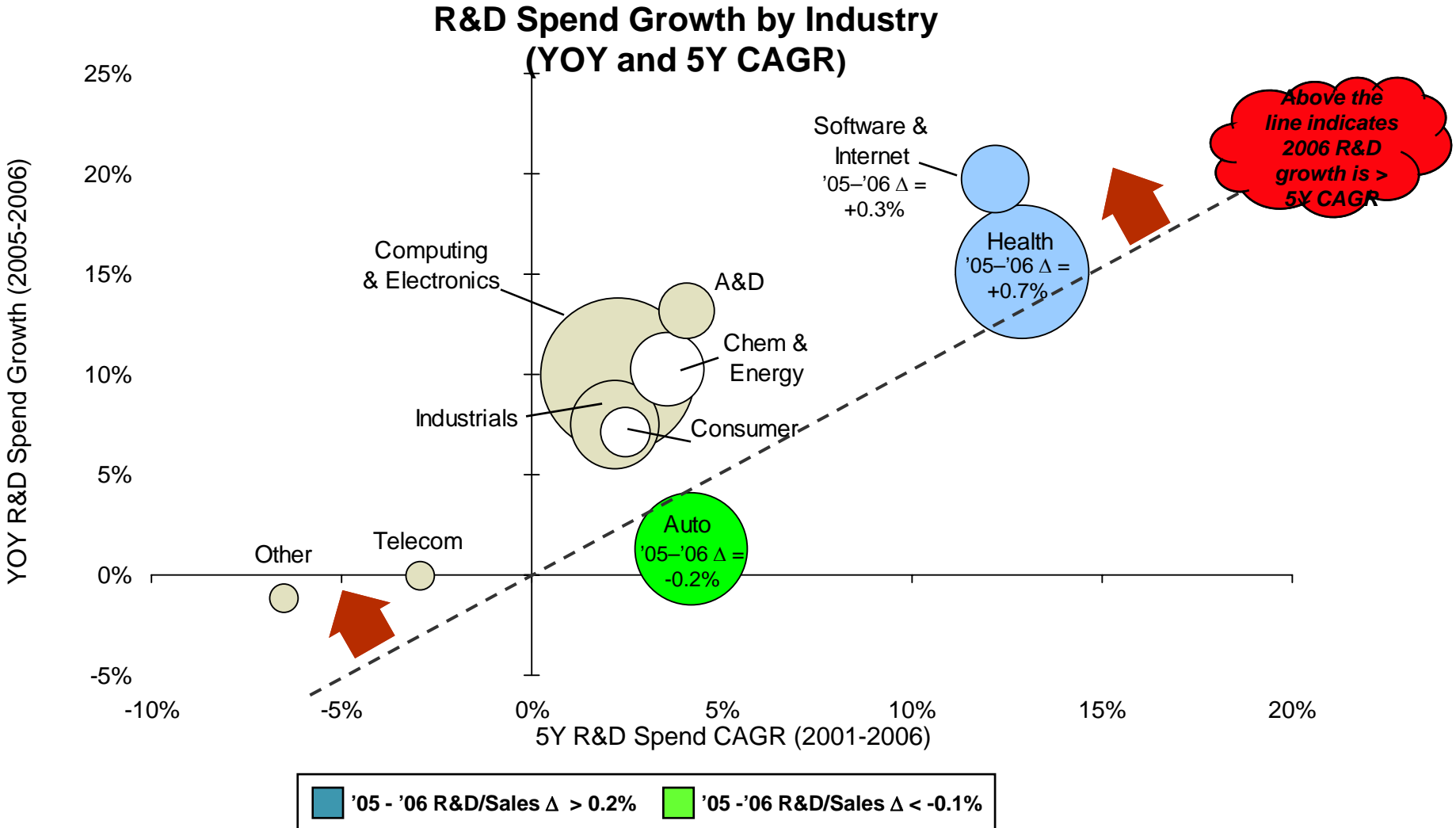
**Total = \$447 B**

## R&D % of Sales by Industry - 2006



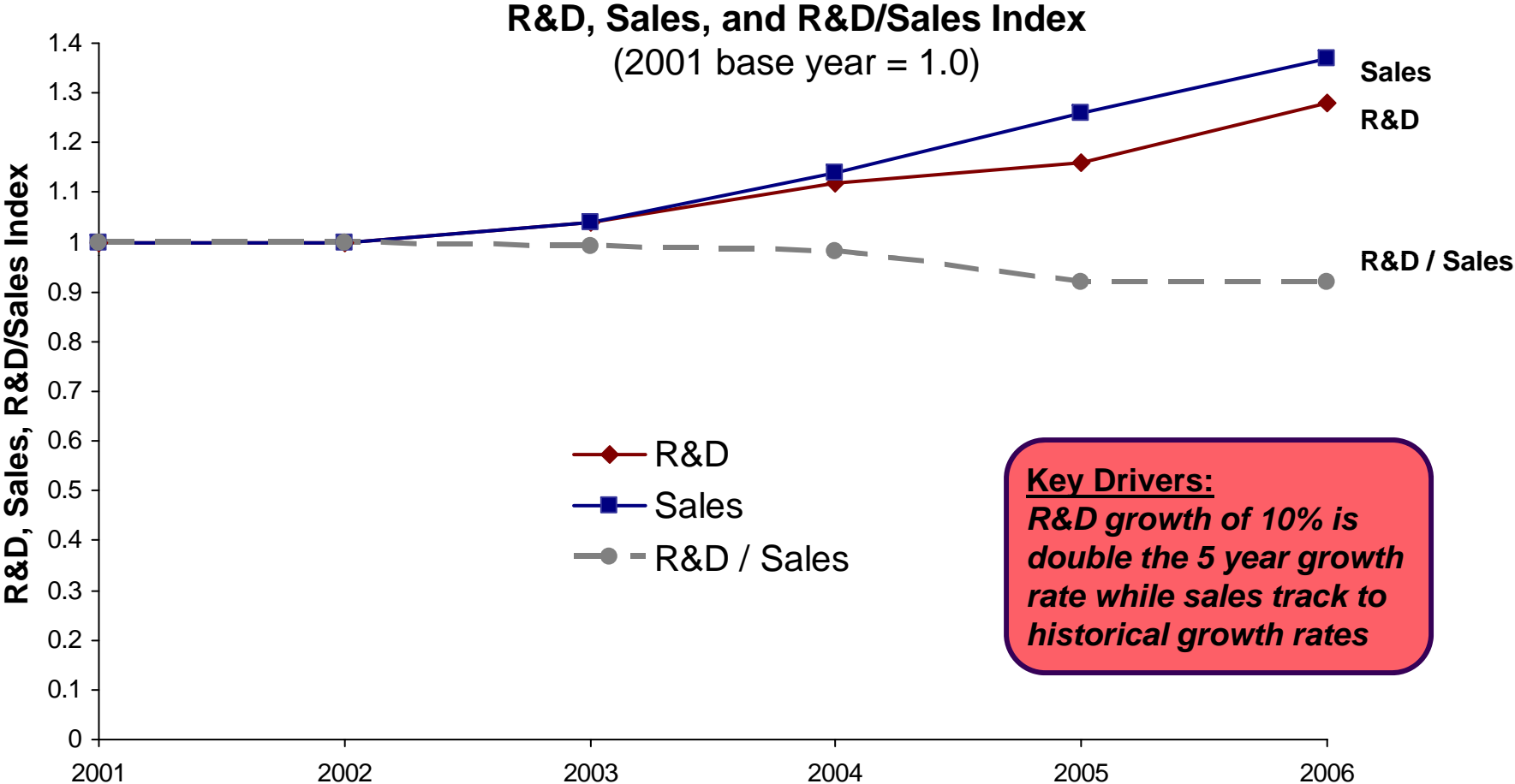
Source: Bloomberg data, I2007 Booz Allen analysis

# R&D spending growth accelerated in 9 of 10 industries examined, Auto is the only sector with a slowing rate



Note: Based on 879 same store sales with 2005 & 2006 data available.  
 Source: Bloomberg data, I2007 Booz Allen analysis

# Key Finding: The steady decline in R&D/Sales leveled off last year as R&D spending grew at the same rate as Sales

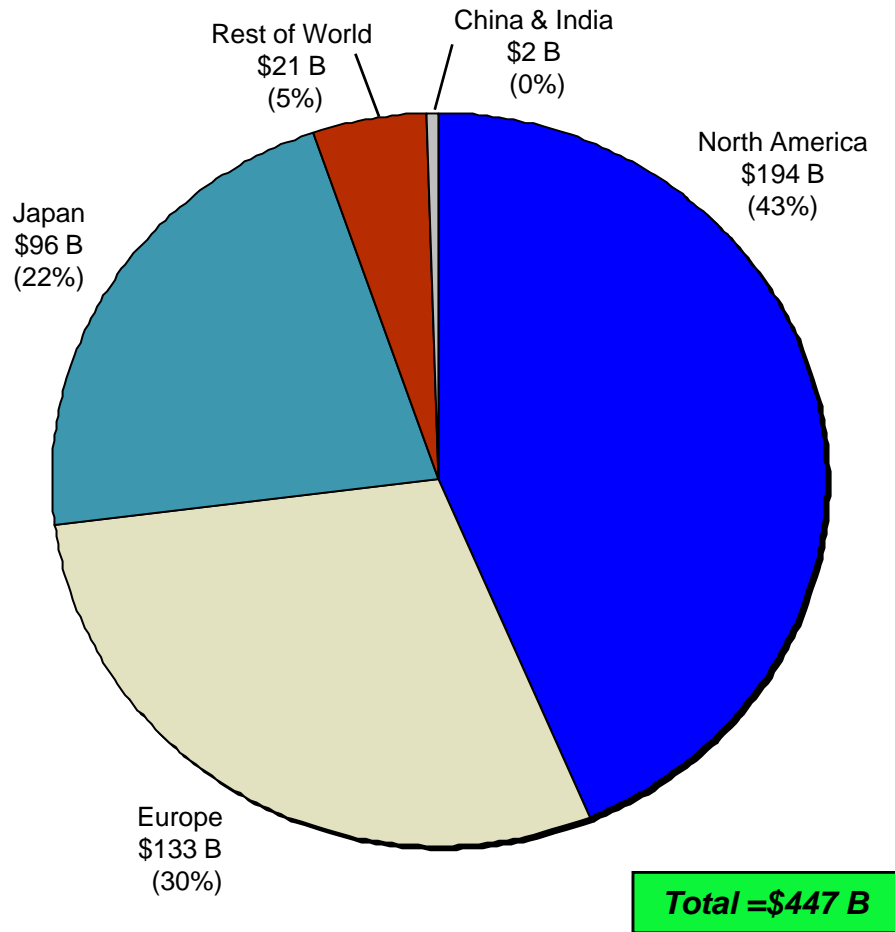


**Key Drivers:**  
*R&D growth of 10% is double the 5 year growth rate while sales track to historical growth rates*

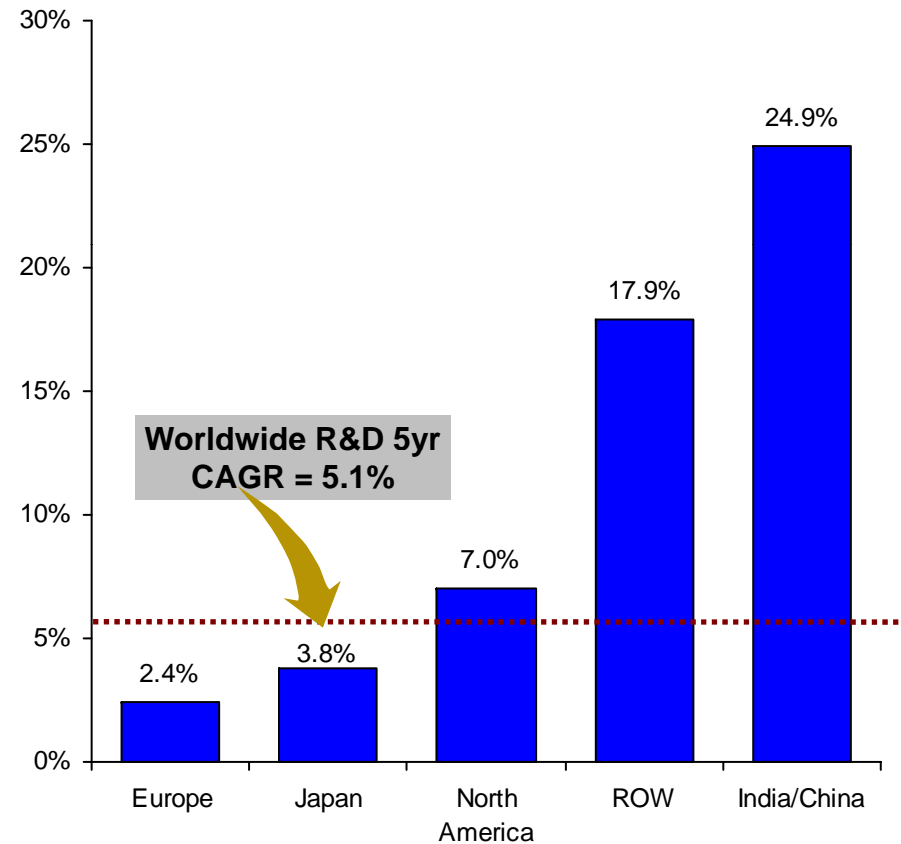
Source: 2006 Booz Allen Global Innovation 1000; Based on 788 "Same Store" for which 2001-2006 sales and R&D data were available;

# European & Japanese headquartered firms are lagging the average R&D spend growth of the world

R&D Spend Distribution by Region - 2006





R&D Spend 2001 - 2006 CAGR



Note: Based on company headquarter locations; CAGR based on 813 same stores for which complete R&D information was available; Used same For-Ex rate for 2001 and 2006;  
Source: Bloomberg data, I2007 Booz Allen analysis

# The Top-20 firms spent over \$120B and are now led by Toyota

Rank	Company	R&D Spend (\$M)	Geography	Industry	R&D / Sales	2005 Rank	% Change over 2005
1	Toyota Motor Corp	7,691	Japan	Auto	3.7%	3	9.6%
2	Pfizer Inc	7,599	North America	Health	15.7%	2	4.7%
3	Ford Motor Co	7,200	North America	Auto	4.5%	1	-10.0%
4	Johnson & Johnson	7,125	North America	Health	13.4%	7	10.3%
5	Daimler Chrysler AG	6,678	Europe	Auto	3.5%	4	-5.6%
6	General Motors Corp	6,600	North America	Auto	3.2%	5	-1.5%
7	Microsoft Corp	6,584	North America	Software/Internet	14.9%	8	6.5%
8	GlaxoSmithKline PLC	6,351	Europe	Health	14.9%	10	10.2%
9	Siemens AG	6,294	Europe	Industrials	5.8%	6	11.4%
10	IBM	6,107	North America	Computing & Electronics	6.7%	9	4.5%
11	Samsung	5,924	ROW	Computing & Electronics	6.7%	11	2.8%
12	Intel	5,873	North America	Computing & Electronics	16.6%	12	14.1%
13	Sanofi-Aventis	5,571	Europe	Health	15.6%	14	9.5%
14	Novartis AG	5,349	Europe	Health	14.8%	16	10.9%
15	Volkswagen AG	5,312	Europe	Auto	4.0%	13	4.0%
16	Roche-Holding	5,262	Europe	Health	15.7%	19	16.2%
17	Matsushita Electric	4,992	Japan	Computing & Electronics	6.3%	15	2.4%
18	Nokia	4,892	Europe	Computing & Electronics	9.5%	17	1.9%
19	Merck & Co	4,783	North America	Health	21.1%	22	24.3%
20	Honda Motor Corp	4,765	Japan	Auto	5.0%	20	8.1%
		<b>\$120.950 Total</b>			<b>6.9% Average</b>		<b>5.8% Average</b>

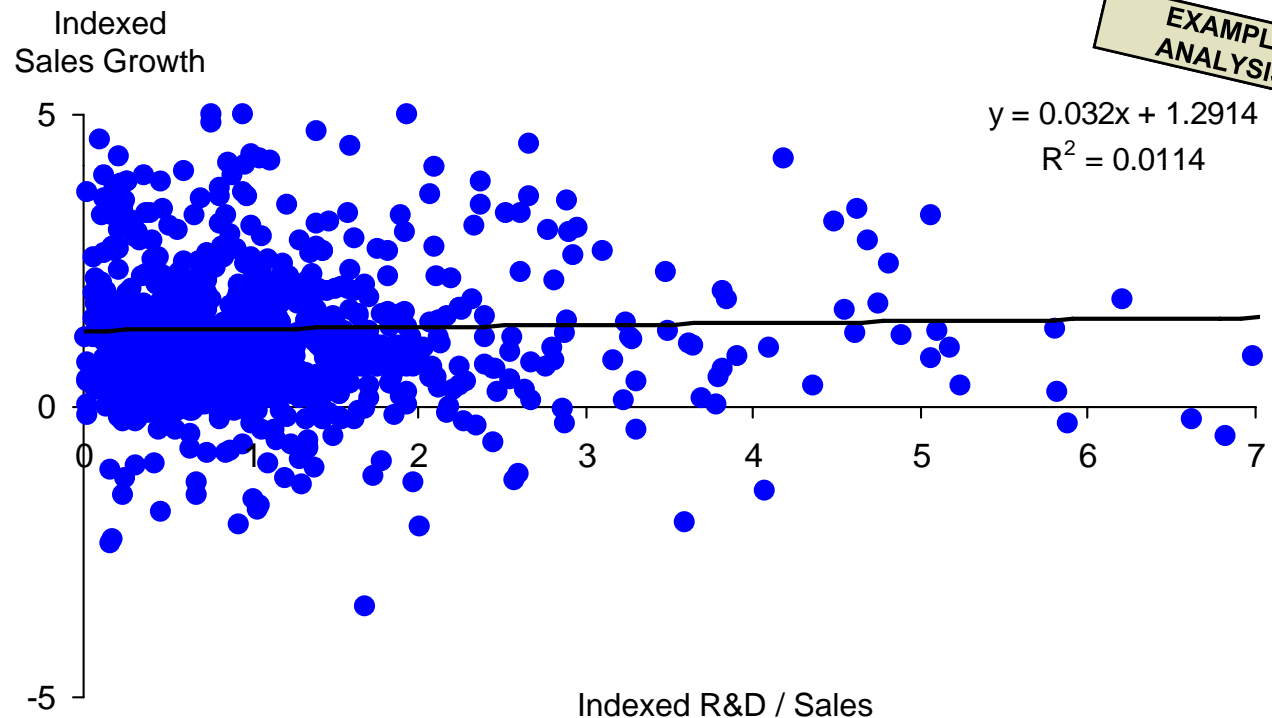
	% Change > 10%		% Change < (5%)
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# Key finding: Higher R&D spending doesn't ensure better performance in terms of growth, profitability or shareholder returns

The Performance Disconnect  
Example analysis showing relation between R&D and financial performance

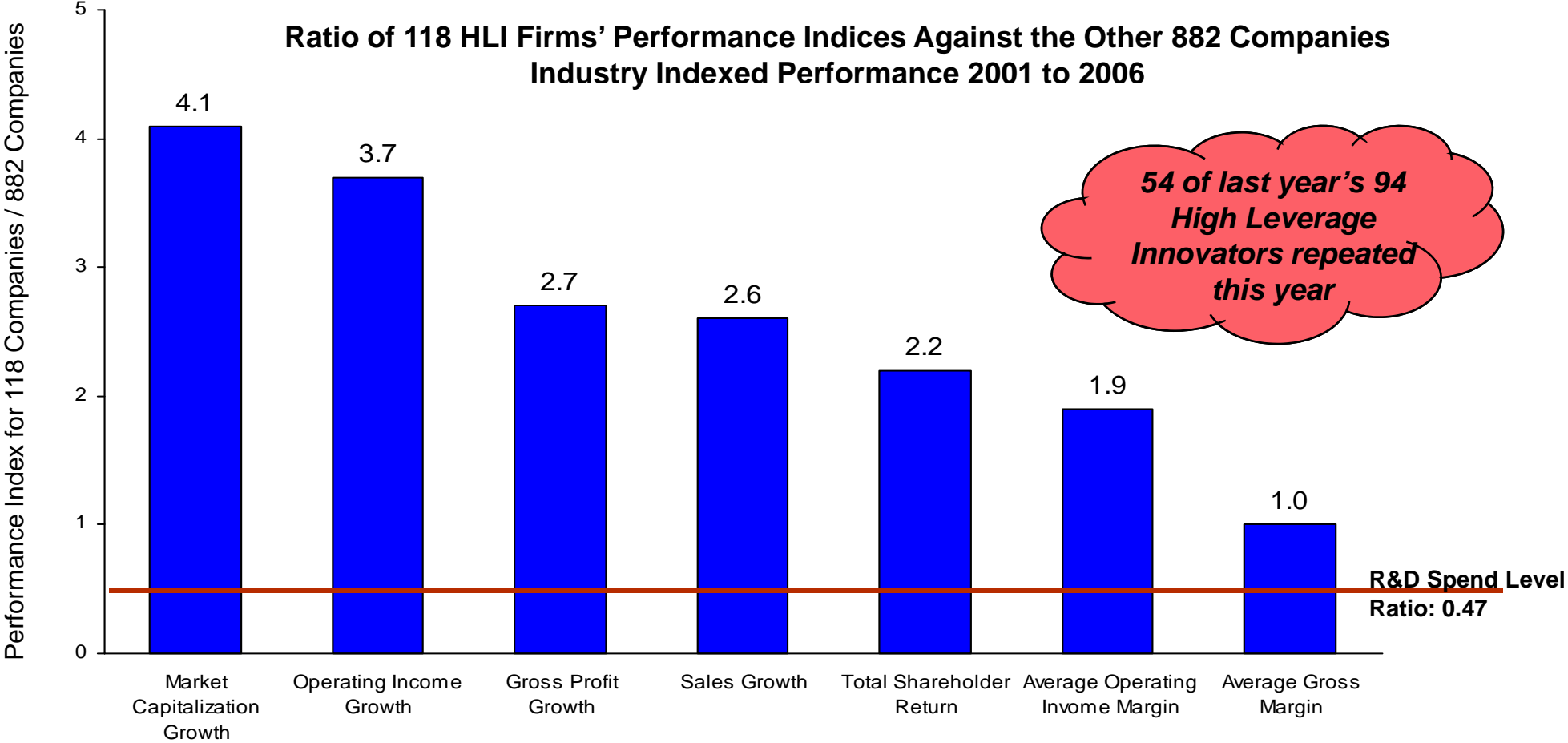
~10,000 analyses found **NO** statistical relationship between R&D spend and:

- Sales growth
- Gross profit growth
- Operating profit growth
- Operating Margin
- Net profit growth
- Net Margin
- Market cap growth
- Total shareholder return



Source: Booz Allen Hamilton Global Innovation 1000, 2006

# Key Finding: High Leverage Innovators spend only about half as much on R&D as the rest of the 1000, but perform 2x-3x better



Source: Booz Allen Global Innovation 1000, 2007

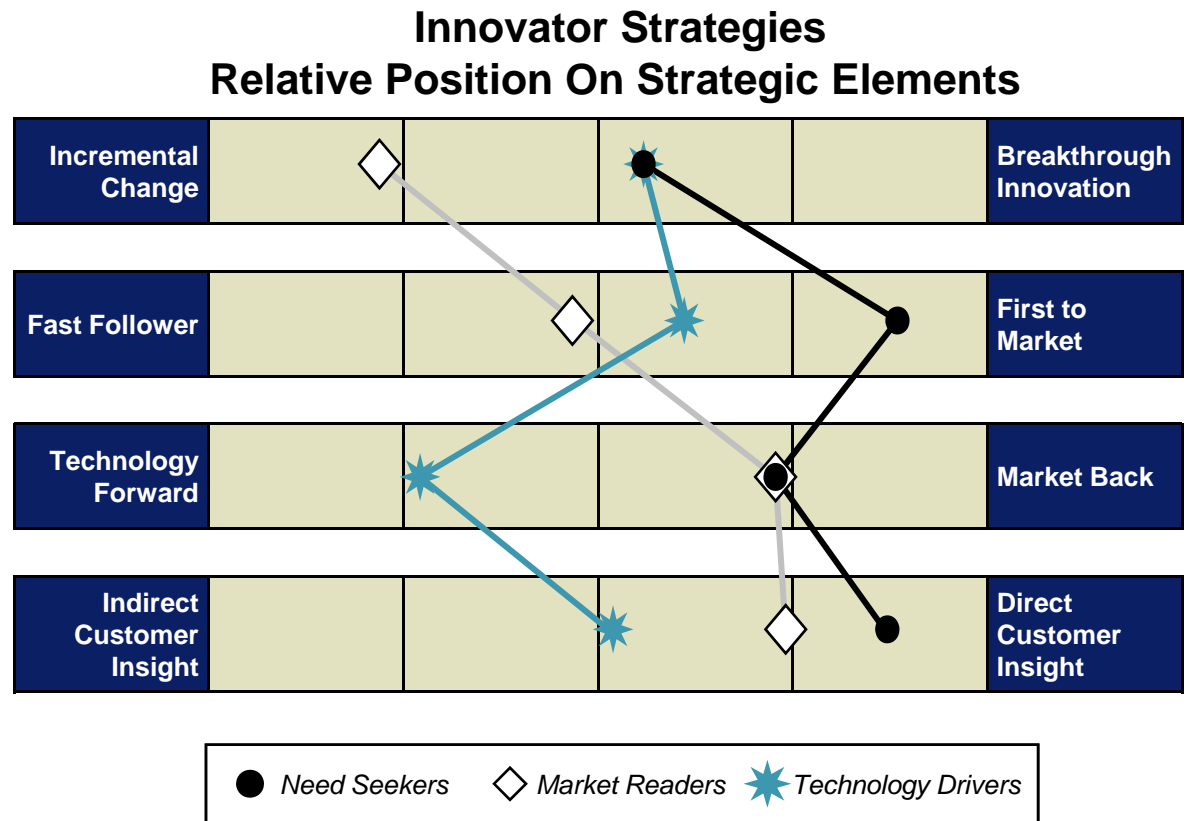
# Key Finding: Three distinct innovation strategies were identified – Need Seekers, Market Readers & Technology Drivers

## Three Innovation Strategies

**Need Seekers** – Consistently strive to be first movers; Proactively engage customers to determine needs and shape new innovations; Determine new innovations market back from market need identification

**Market Readers** – Adopt a second mover strategy; Focus on driving value through incremental change; New innovations determined market back, although not as proactively as Need Seekers

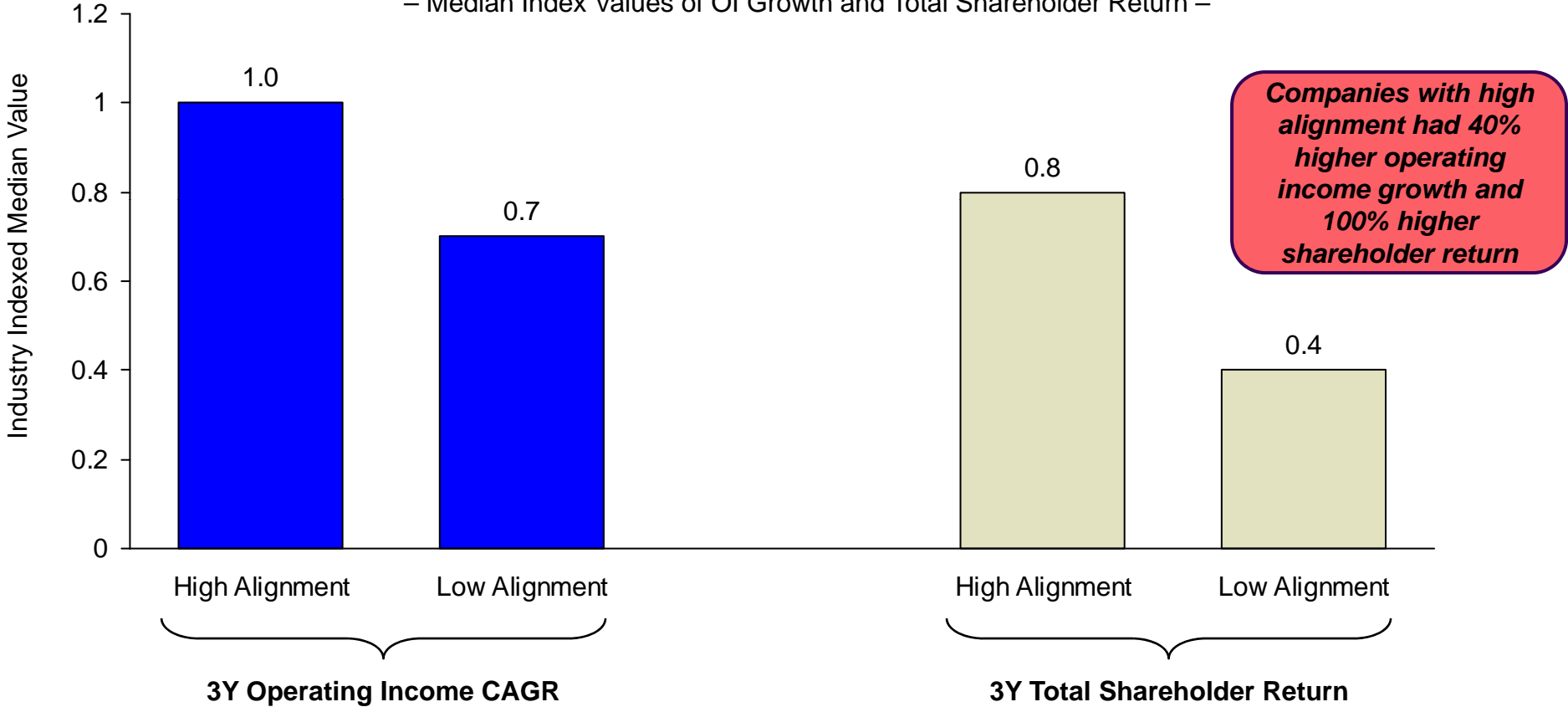
**Technology Drivers** – Drive innovation via technological achievement; Leverage technology for both incremental and breakthrough change; While the least proactive of the three strategies in directly contacting customers, they are still focused on consumers



# Key Finding: Companies with tightly-aligned business and innovation strategies perform better than those with weak alignment

## High vs. Low Alignment Between Innovation & Business Strategy

– Median Index Values of OI Growth and Total Shareholder Return –

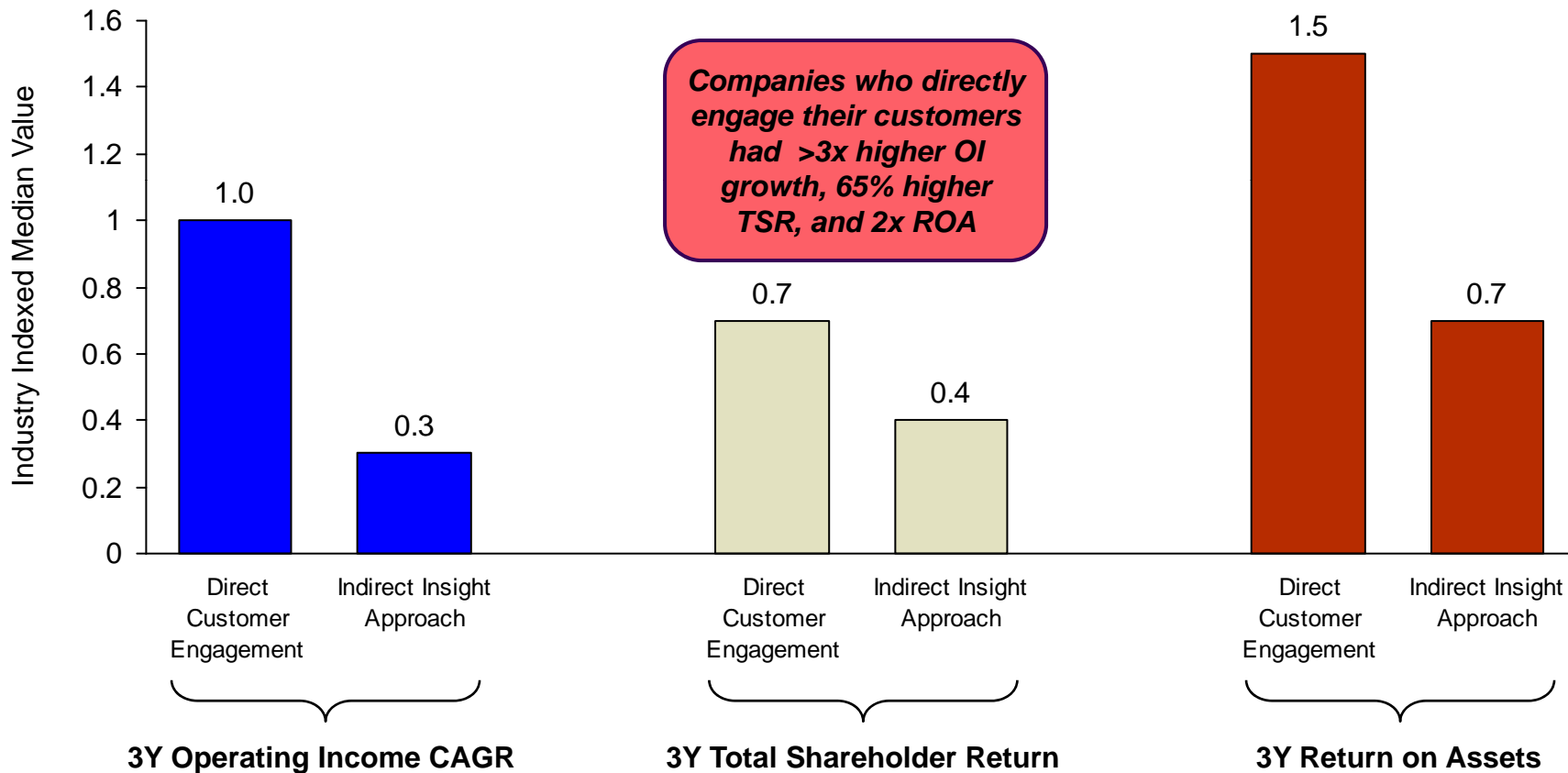


Note: High Alignment represents scores of 1 or 2; Low Alignment represents scores of 3,4, 5;  
Source: Booz Allen analysis

# Key Finding: Companies who directly engage their customers had superior results regardless of innovation strategy

## Direct Customer Engagement vs. Indirect Customer Insight Approach

– Median Index Values of OI Growth, Total Shareholder Return and ROA –



Note: Direct Engagement represents scores of 1 or 2; Indirect Insight represents scores of 3,4, 5

Source: Booz Allen analysis

# Companies following each innovation strategy provide examples of differentiating practices

## ***NEED SEEKER***



- ▶ Stresses engagement with customers and sends engineers and marketing product managers on regular visits to homebuilding job sites to study building trends and their impact on the company's products

## ***MARKET READER***



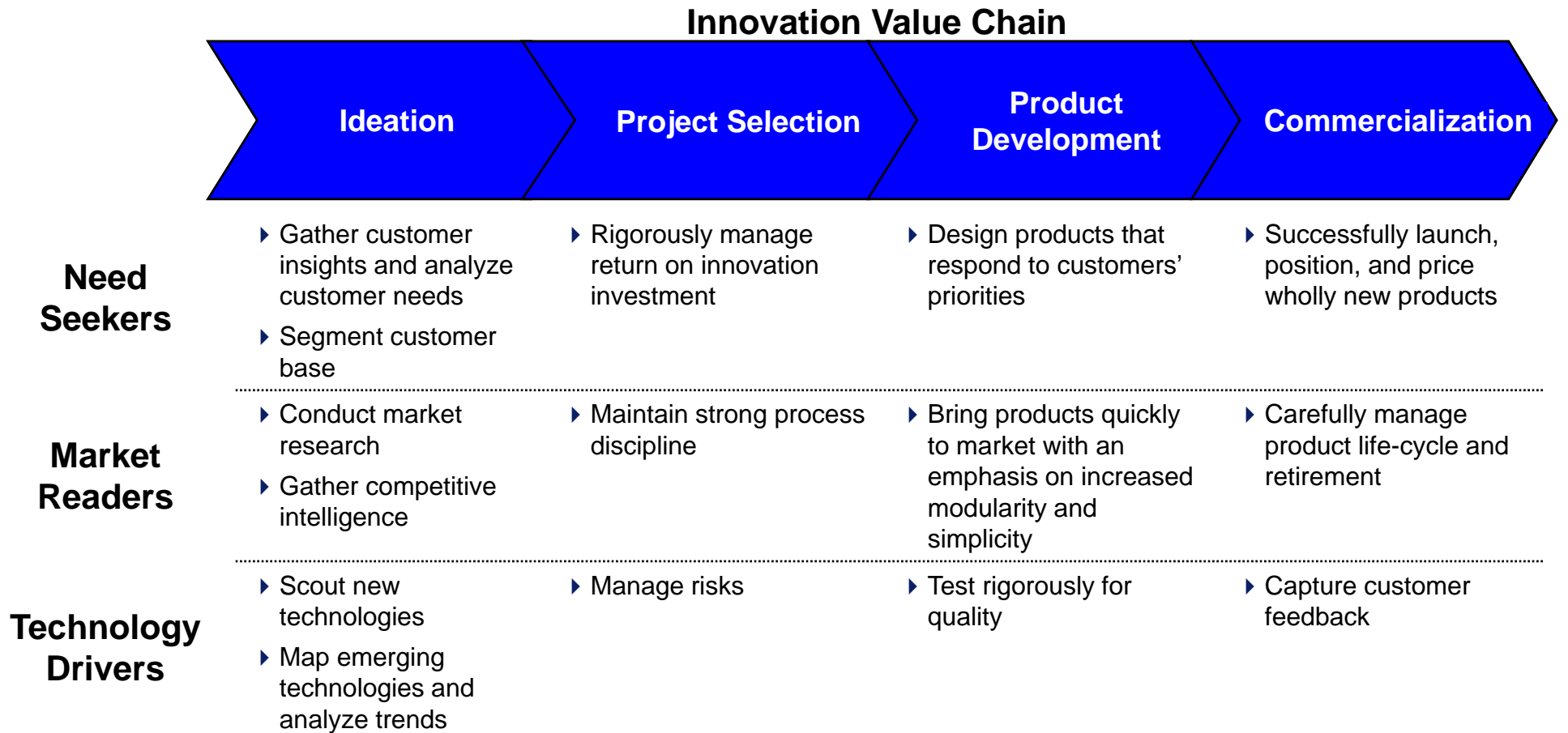
- ▶ Collects customer information by closely following technological and user trends in consumer market and by sharing knowledge through strategic partnerships with major corporate customer
- ▶ Employs a rigorous measurement process on all innovation projects to ensure success of product brought to market

## ***TECHNOLOGY DRIVER***

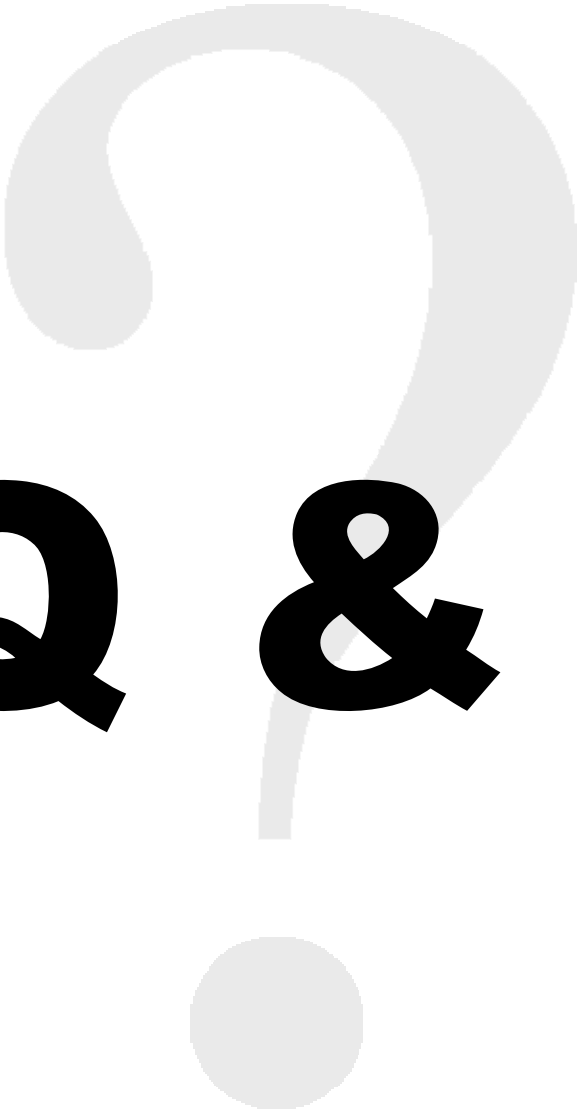


- ▶ As a technology driver, the company understands it needs to temper their own design creativity with customer needs
- ▶ Siemens maps long-term trends to anticipate how customer needs will change over time, even before the customers are able to explicitly convey those needs

# A company's innovation strategy determines which capabilities are most vital to success across its innovation value chain



**Customer insight & portfolio management are key to all strategies**



**Q & A**

# For Further Reading

**To read the article, “The Customer Connection: The Global Innovation 1000,” please use the following link:**

<http://www.strategy-business.com/press/article/07407>

**Slides and recording: A recording of the event will be posted at:**

<http://www.strategy-business.com/webinars/archive>



## **Additional Innovation Reading:**

**Innovation Agility – Insights into Toyota Product Development**

*from the Summer 2007 issue of s+b*

**Innovators without Borders – The Globalization of Engineering**

*from the Spring 2007 issue of s+b*

## **Previous Innovation 1000 articles:**

- Smart Spenders – The 2006 Booz Allen Innovation 1000
- Money Isn't Everything – The 2005 Booz Allen Innovation 1000



**Interested in receiving more information from Booz Allen’s Innovation Team?**

**Contact Kate Pinkerton, Innovation Director ([pinkerton\\_kate@bah.com](mailto:pinkerton_kate@bah.com))**

**or Barry Jaruzelski ([jaruzelski\\_barry@bah.com](mailto:jaruzelski_barry@bah.com))**