

SOONER. BETTER.



Improve Your Competitive Edge Through Custom Design, Development, & Manufacturing

*Bob Hayes, Vice President
Product Development*

New Product Innovations, Inc.

DISCUSSION

Discussion Points

- Perspective
- The Reality
- Do the Right Thing Right
- In Conclusion
- Discussion



Perspective

- Destined to be a consultant
- Research and Development
- Industry
- Consulting
- Custom Solutions: NPI
 - Began as joint venture in 1989 between GE Plastics and FITCH.
 - Headquartered in Columbus, OH with offices in Asia.
 - Interdisciplinary teams with expertise in product design, development and manufacturing.



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The Reality— *Things are Changing*

ROLE

The Role of SCM

- Innovation—
 - **1973**—Purchasing last to know.
 - **Now**—Involved earlier in the process.
 - **Future**—SCM doing opportunity sourcing, driving and championing innovation.
- Contribution
 - **1973**—Little attention paid to purchasing functions.
 - **Now**—Purchasing must learn and sell their changing role throughout the organization.
 - **Future**—Executives expect supply chain managers to show initiative and offer value with proactive business strategies that lead to correlating SCM strategies.

Source: “*Beyond Supply Chains - Sooner Than We Think*”, Joseph L. Cavinato, Ph.D.
ISM’s 86th Annual International Purchasing Conference, April 29, 2001.

The Birth of Co-Development

Supply Chain Management Continuum



Co-Development

What is Co-Development

When two or more organizations, with shared vision and objectives, work closely together to bring a new product to market. In this process it is required that each of the involved organizations share in the risks and rewards of the product's success.

Co-Development is not:
Outsourcing/Subcontracting
Insourcing
Easy



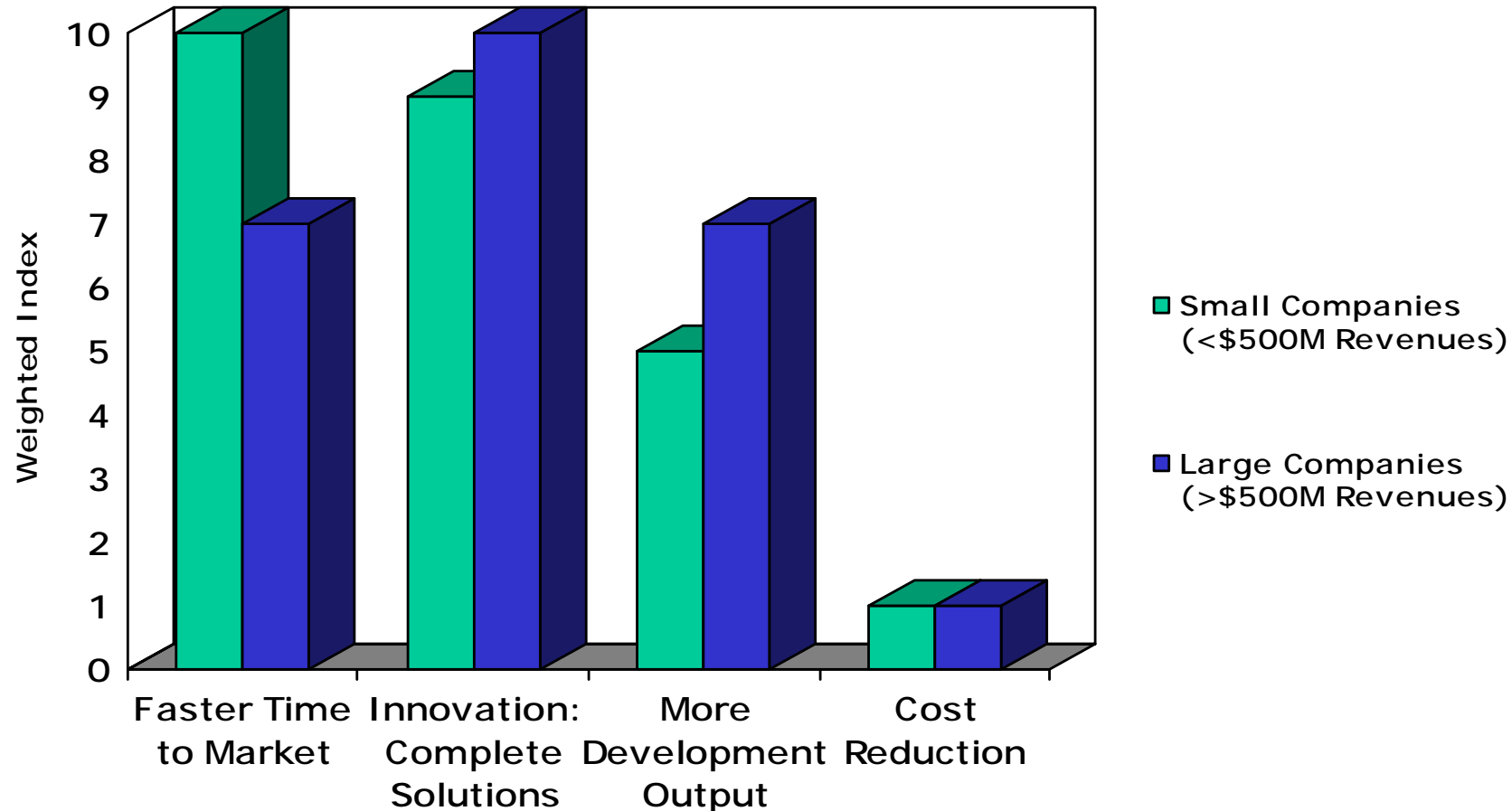
Co-Development

- How is it different from outsourcing?
 - Shared Risk
 - Shared Accountability
 - Shared Responsibility
 - Shared Financial Investment
 - Shared Authority

Co-Development=Partner not Vendor

Reasons for Co-Development

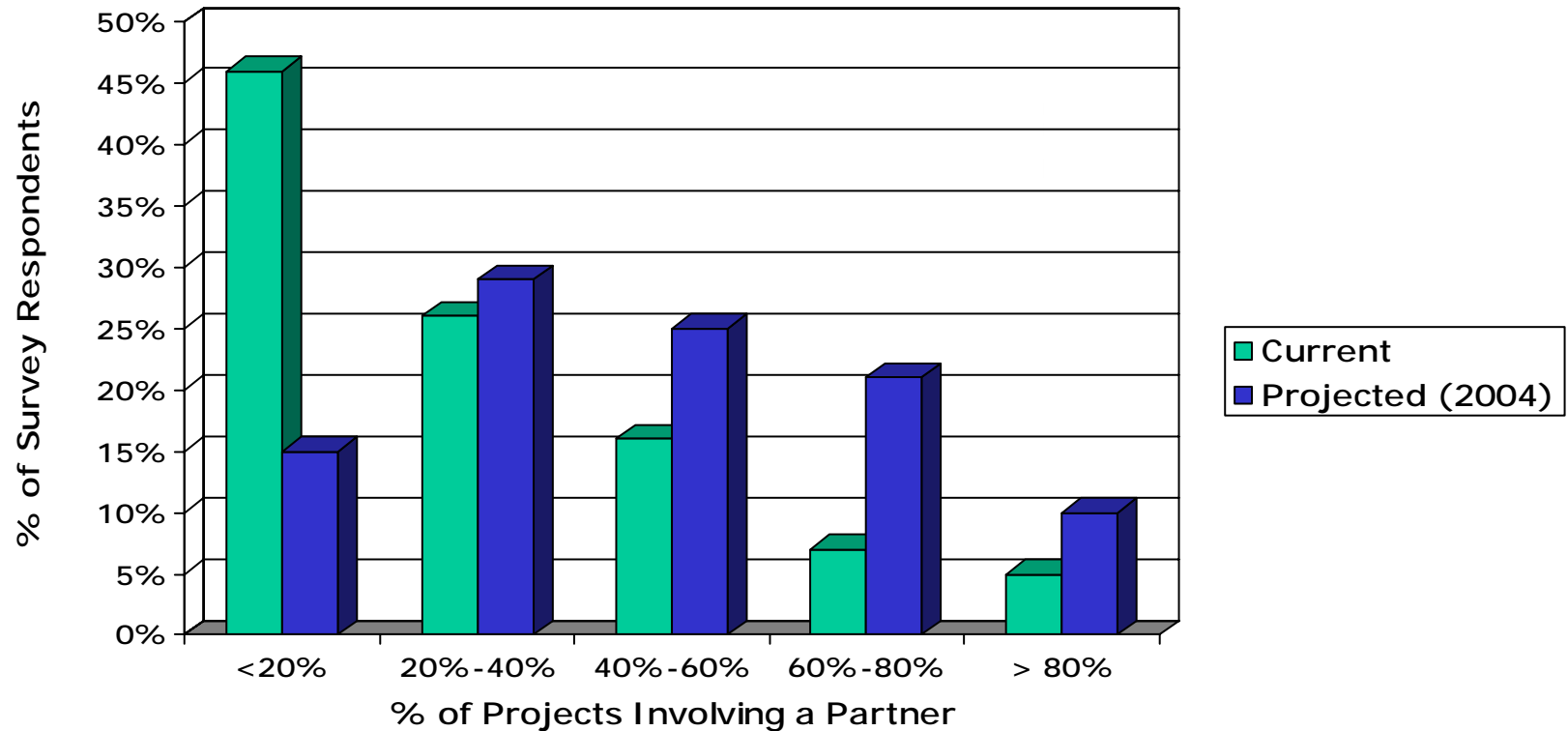
Relative Importance of Reasons for Co-Development



Source: 2002 survey conducted by The Performance Measurement Group LLC (A PRTM Company) for the January 2002 PDMA/MRT Co-Development Conference

Co-Development Projects

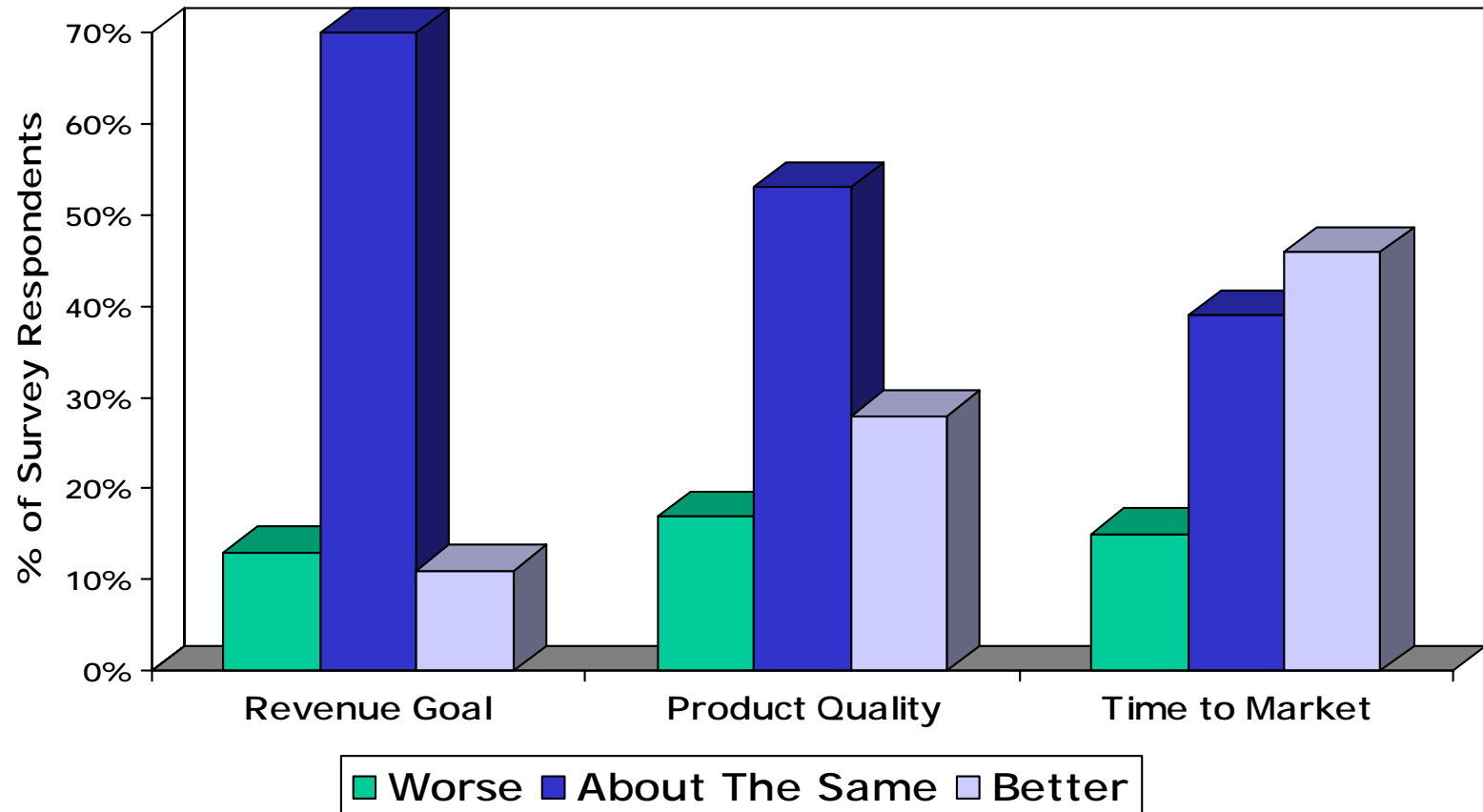
Percent of Projects Involving a Defined, Strategic Partner



Source: 2002 survey conducted by The Performance Measurement Group LLC (A PRTM Company) for the January 2002 PDMA/MRT Co-Development Conference

Co-Development Performance

Performance of Co-Development Projects as Compared to In-House Projects



Source: 2002 survey conducted by The Performance Measurement Group LLC (A PRTM Company) for the January 2002 PDMA/MRT Co-Development Conference

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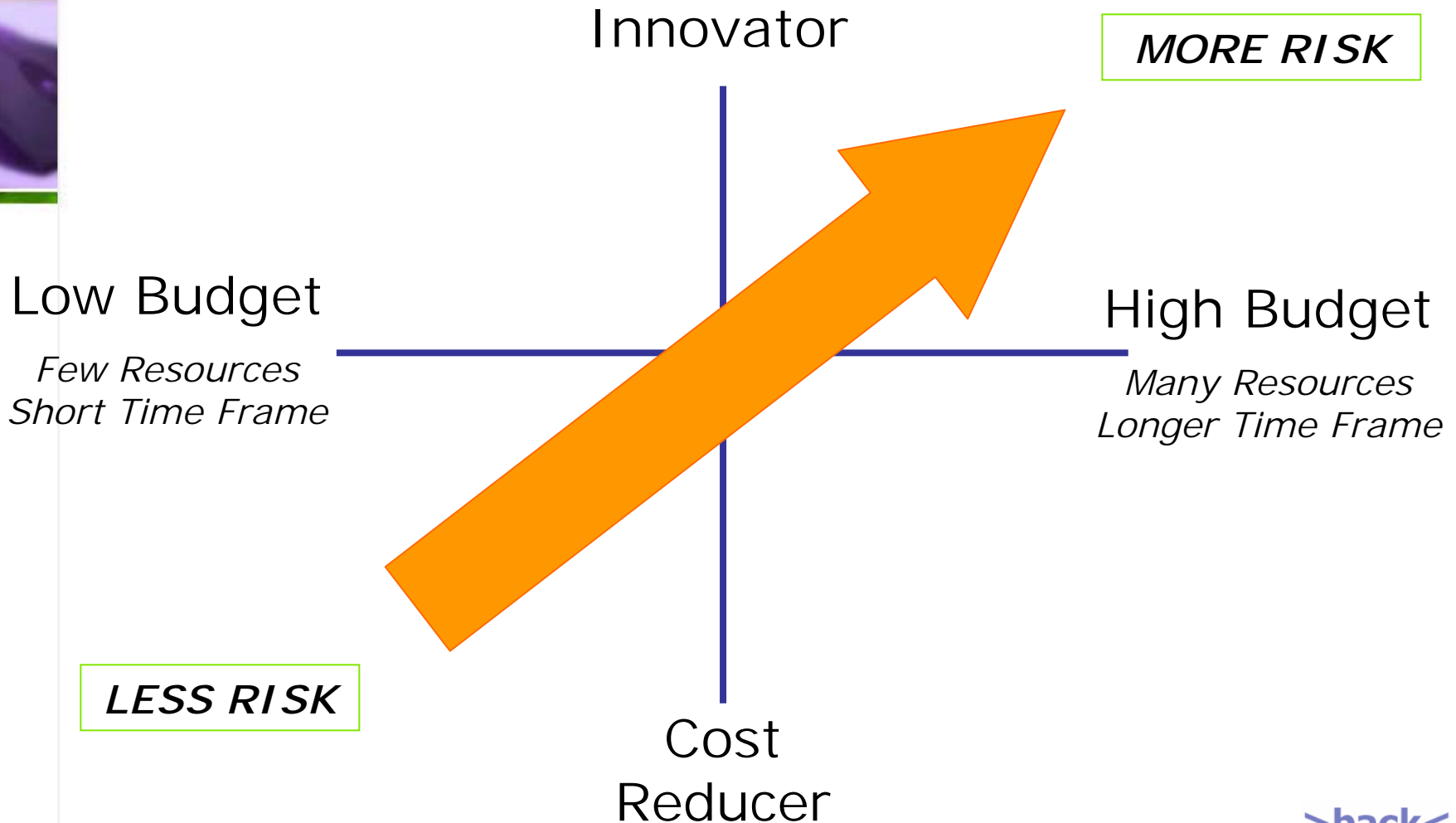
Success— *Do the Right Thing Right*

Do the Right Thing

- Know what kind of company you are
 - Innovator
 - Fast Follower
 - Cost Reducer
- Know what you are asking for
 - Project Requirements
 - [Implications](#)
 - [Case Study 1](#)
 - [Case Study 2](#)
- Know your stakeholders
 - Do Your Homework
 - Determine Implications
 - [Case Study 3](#)



Implications

[>back<](#)

Types of Product Development Projects

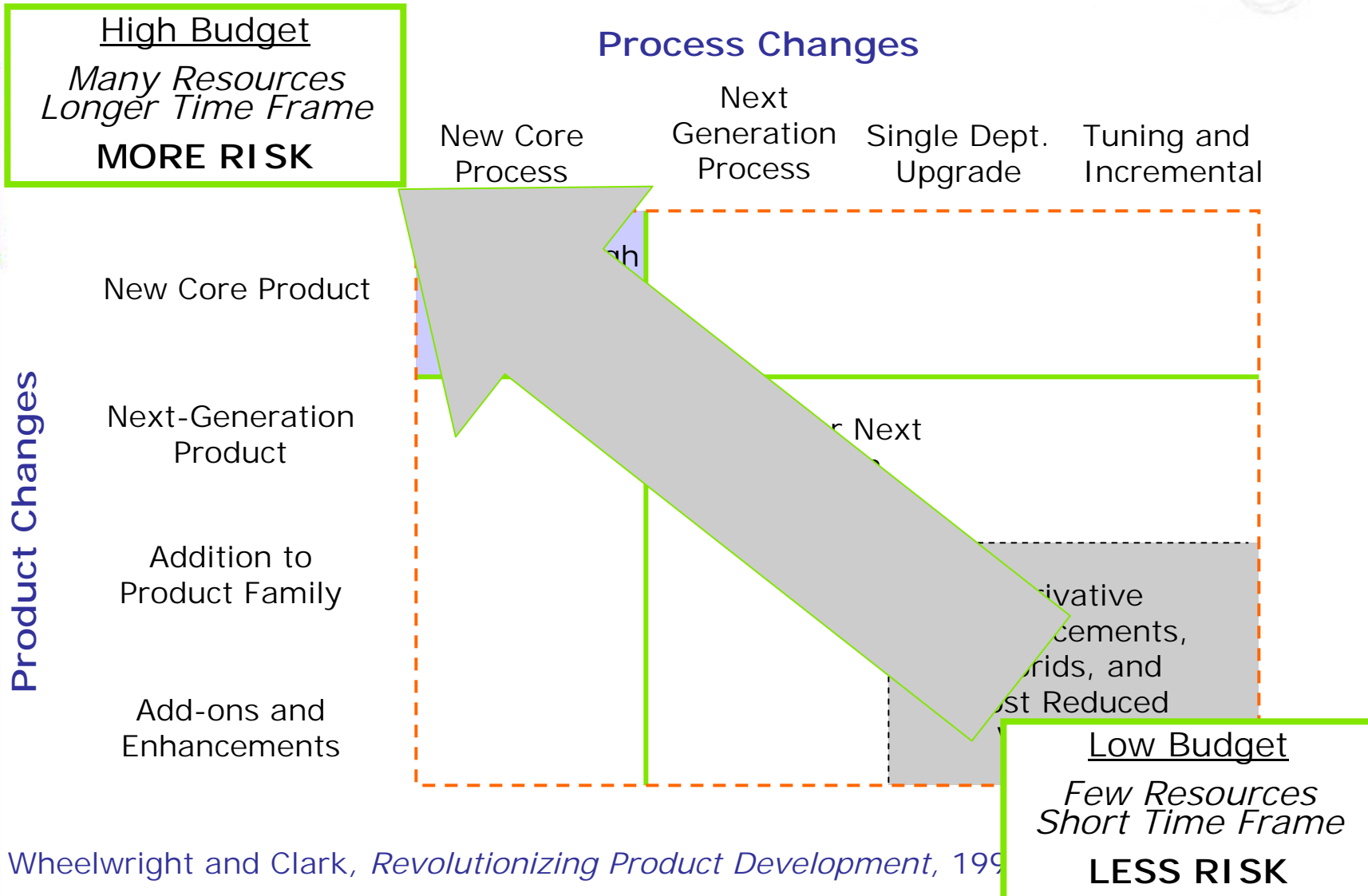
Product Changes

Process Changes

	New Core Process	Next Generation Process	Single Dept. Upgrade	Tuning and Incremental
New Core Product	Breakthrough or Radical			
Next-Generation Product		Platform or Next Generation		
Addition to Product Family				
Add-ons and Enhancements				Derivative (Enhancements, Hybrids, and Cost Reduced Versions)

Source: Wheelwright and Clark, *Revolutionizing Product Development*, 1992.

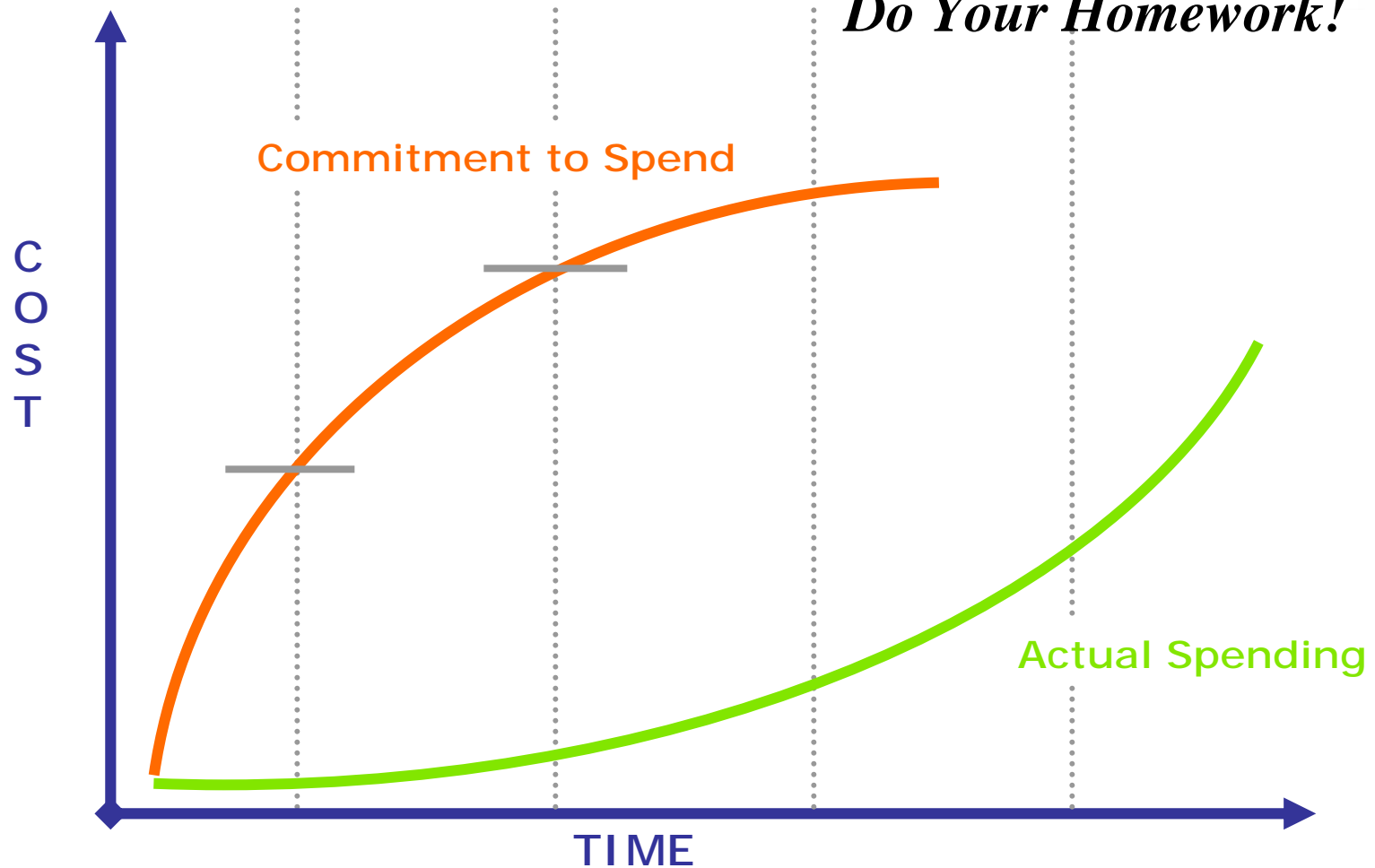
Types of Product Development Projects



Source: Wheelwright and Clark, *Revolutionizing Product Development*, 1999

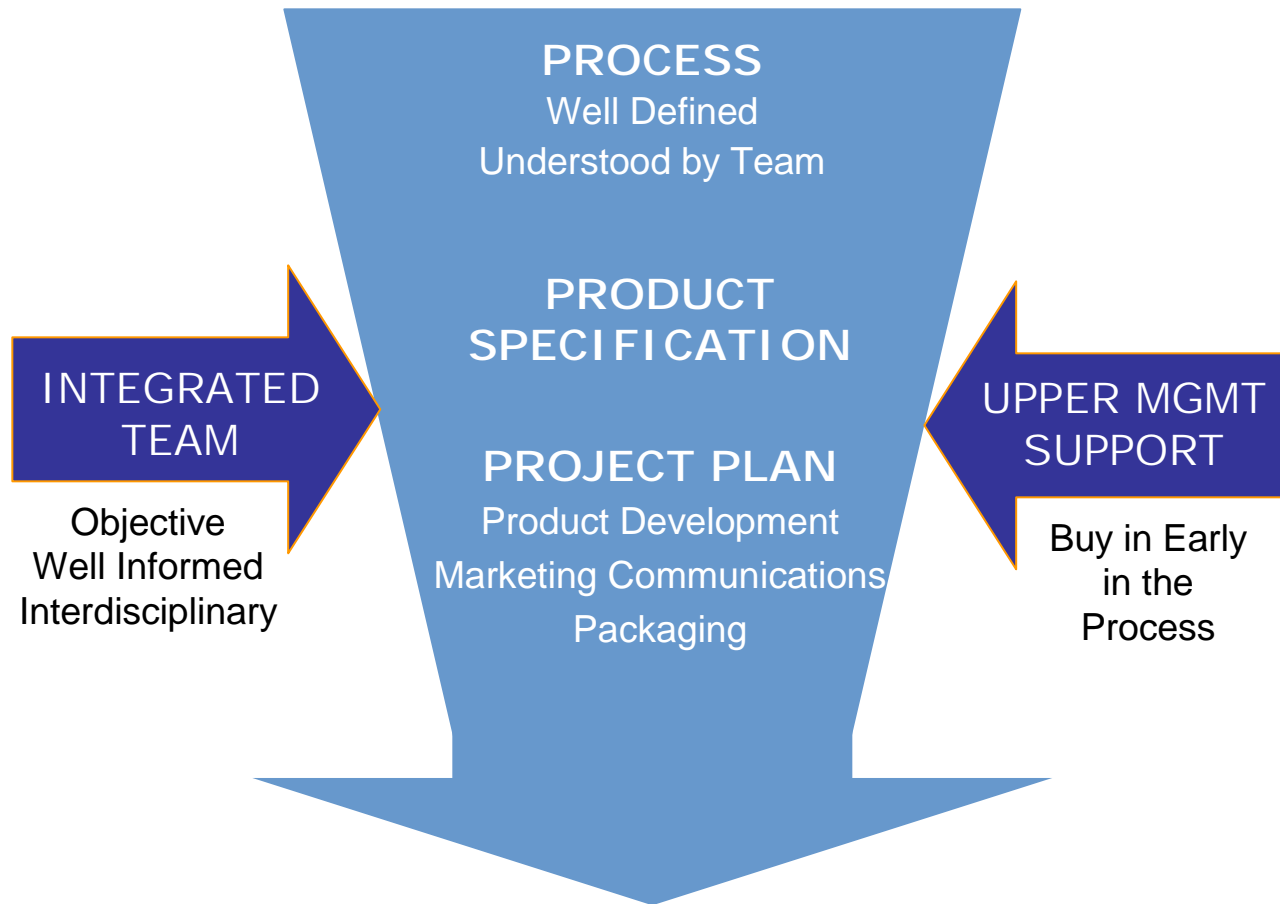
Commitment versus Spending

Do Your Homework!



75-80% of the Commitment to Spend Happens in the First 25-30% of the Project.

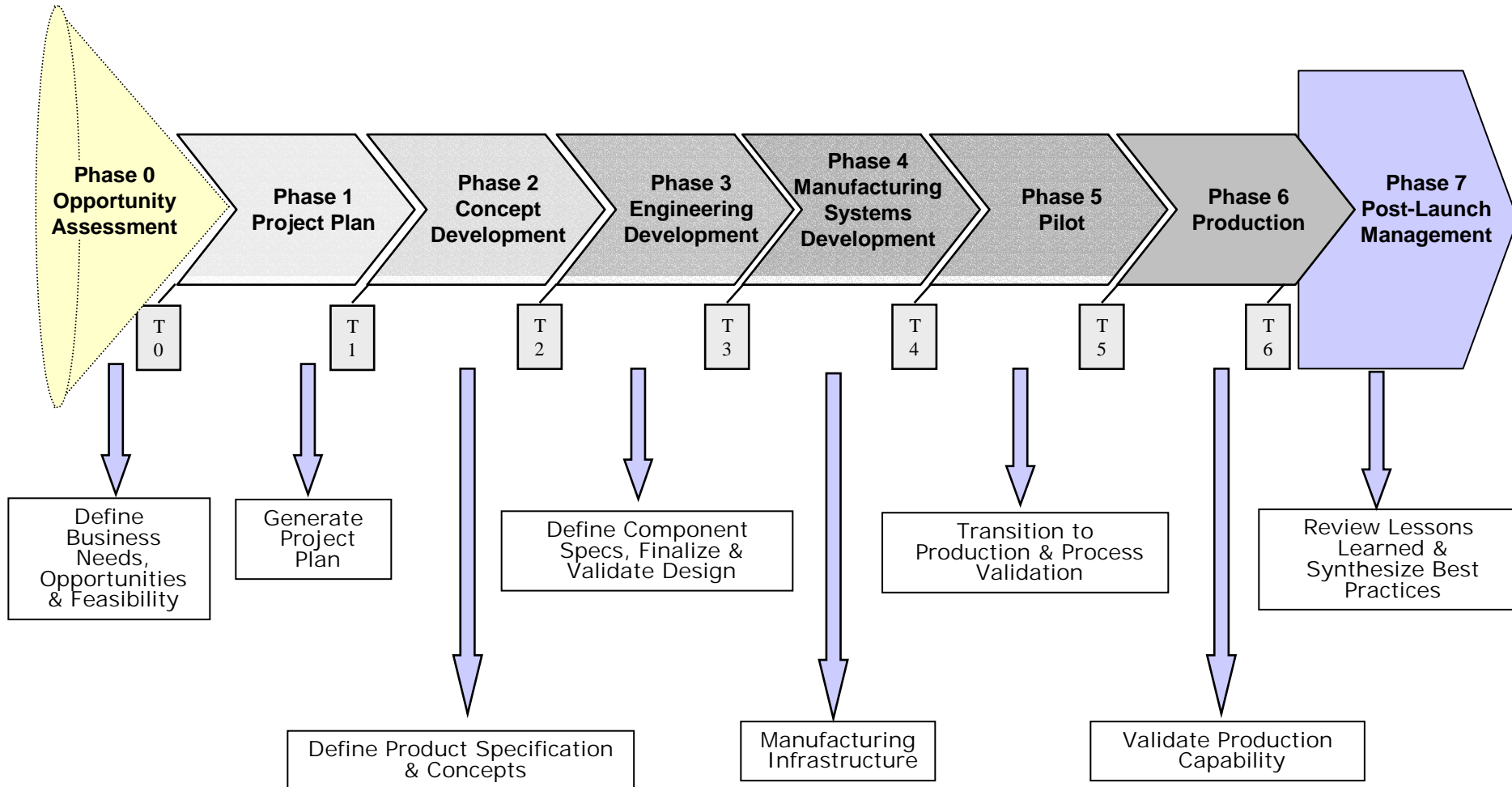
Do Things Right



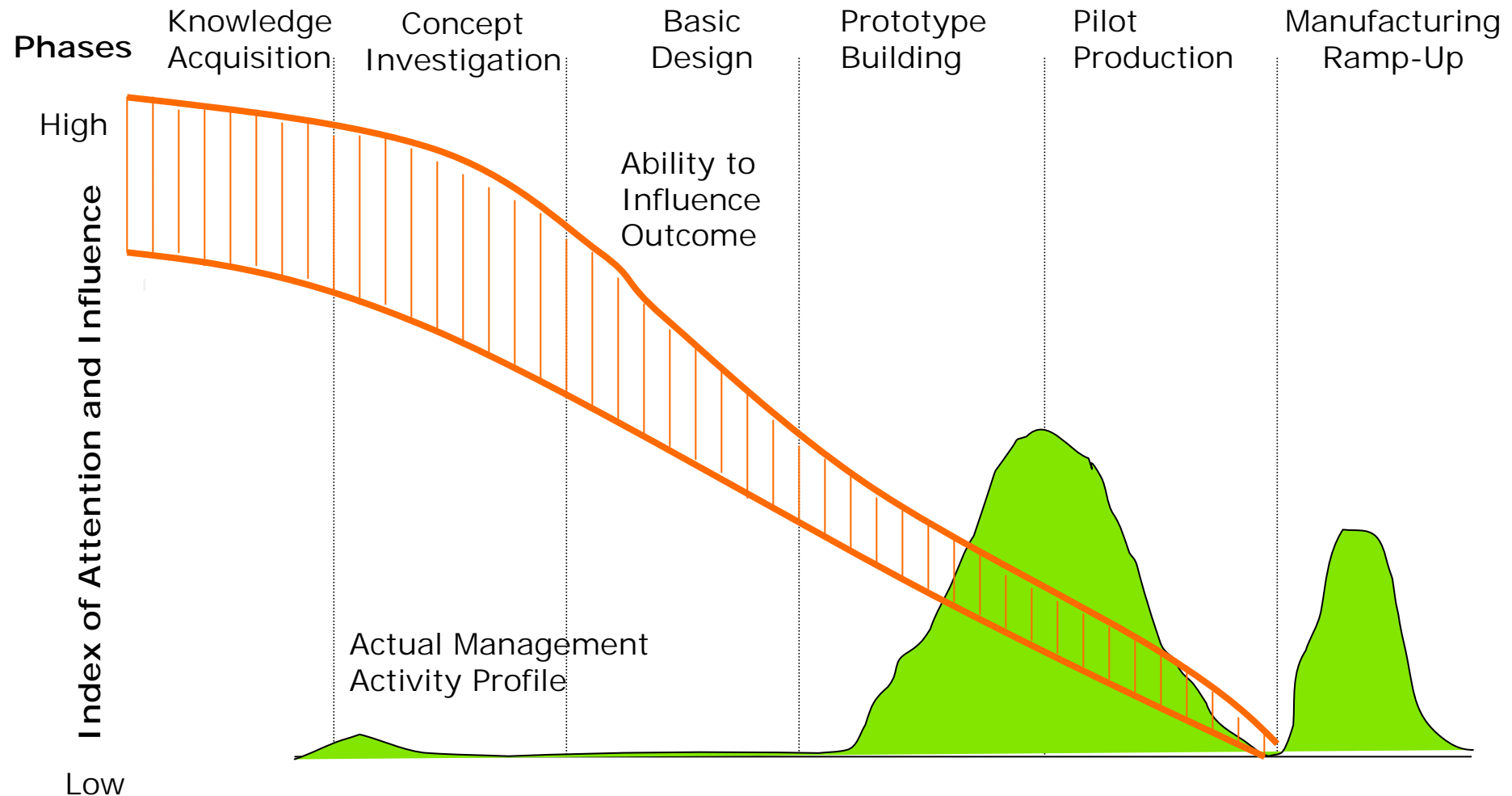
SINGLE POINT OF RESPONSIBILITY

Time Constrained, Not Budget Constrained

NPI Process TM



Timing and Impact of Management Attention and Influence



Source: Hayes, Wheelright and Clark, *Dynamic Manufacturing*, 1988

SPEED

Integration

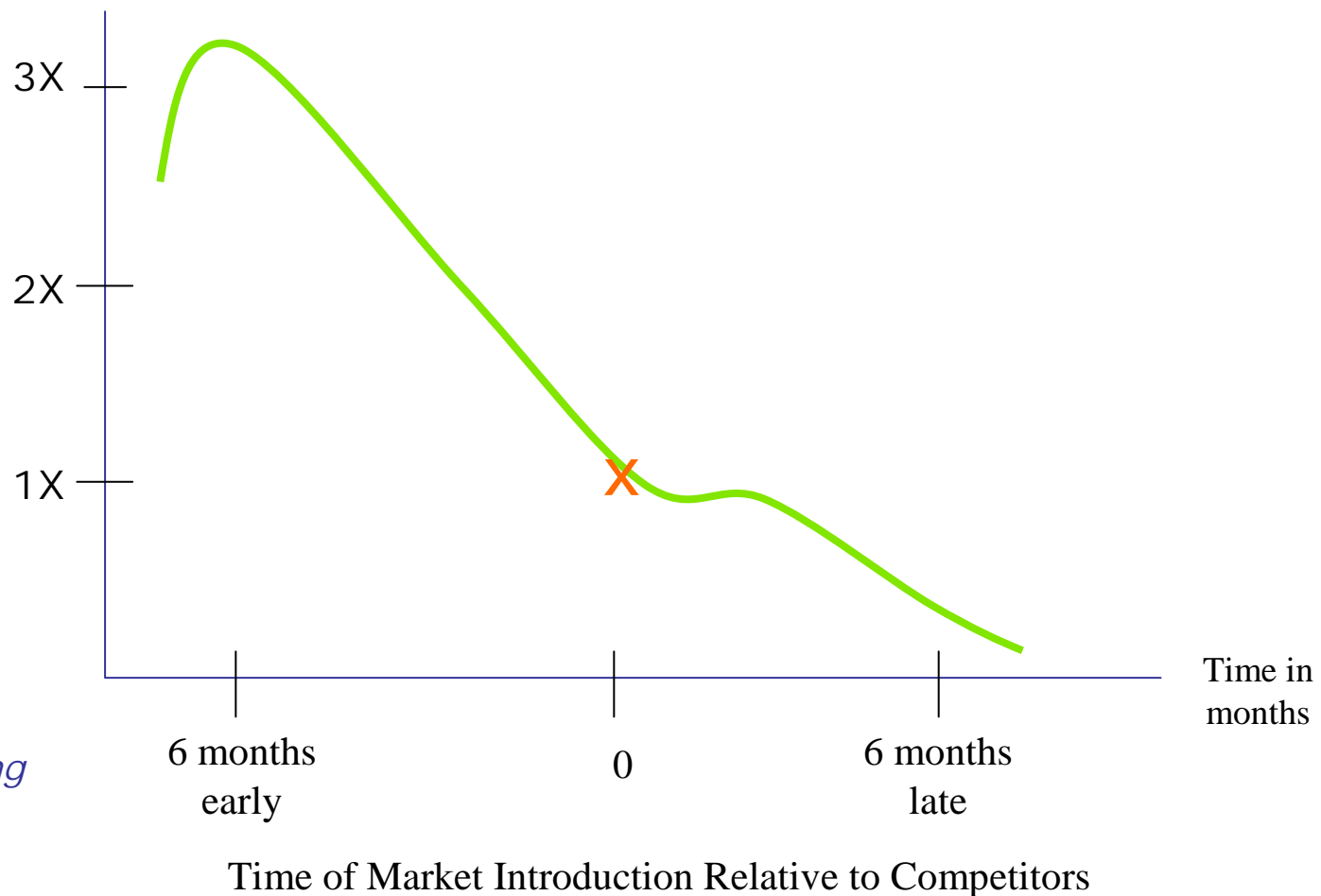
“Research on high-performance product development has shown quite clearly that problems in lead time and in productivity generally revolve around the challenge of integration. The typical problem is that important connections between functional activities are not made in either a timely or an effective way. The result is that difficulties with the product as a system crop up late in the development cycle, resulting in significant delays, redesigns and poor quality.”

Source: *“The Product Development Challenge: Competing Through Speed, Quality and Creativity.”* Kim B. Clark



Impact of Market Introduction Timing

**Cumulative Profits Over
Life of Product**
(relative to average for the
industry)



Source:
Wheelwright
and Clark,
*Revolutionizing
Product
Development*,
1992.

SPEED

Speed versus Cost


A product produced within a set budget, but lagging behind schedule will lose half of its profit potential, but in contrast, a product produced at 50% over budget, but on time will lose only 3% of its overall profit margin.....



"Competing Against Time"
George Stalk Jr. & Thomas M. Hout

SPEED

Speed versus Cost



“Studies have shown it’s more profitable to get a product out in time but over budget by 50% than it is to be six months late and within budget.”

Source: *“Idea to reality: Get to market faster”*
Smart Business Magazine



CONCLUSION

Conclusion

- It's ok to lead, follow or optimize
- Do it with insight
 - Process
 - Market Understanding
 - Cost/Time trade-off
- Adopt, sit on the fence or resist





Q & A



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