



# ***Engines of Innovation***

## **Executive Presentation**

***Growth & Innovation are the TOP PRIORITIES on CEO's Minds***

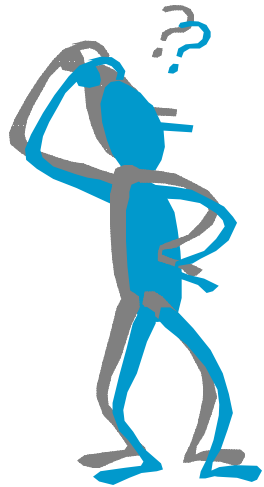
**DuPont**

**Delaware**

**July 2005**

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## **What's Wrong with these Comments?**



# Real Stories About Supply Chain Management

- **Cisco Systems:** “Our key customer just demanded a 35% cut in price for our product. They said if we didn’t, they would buy it in China instead.” (Our warranty is bullet proof, our quality is second to none, our systems architecture is scalable, our product outperforms the competition, our R&D is cutting edge, and last year we enabled you to get into the market with a great product before the competition.)
- **Medical Product Supplier to Johnson & Johnson:** “Every year they demand a 5% cut in costs. So I cut costs, but they are not interested in any of my innovations that would increase their sales dramatically.”
- **Firestone:** A 50 cent belt on the tire would have prevented nearly all the blowouts and saved Ford billions of dollars. Instead nearly 300 people are dead.
- **General Motors in 1990s:** “We squeeze our suppliers.” “Our warranty costs are higher than our profits” GM’s market share has been slipping for years, and has lost billions of dollars.
- **Suppliers about General Motors in 1999:** “We subsidize General Motors” “There’s no profit in it” “We don’t drive GM cars because we know what goes into them” **in 2002:** “We have left the automobile industry” “We will not engage in the e-bidding debacle; they don’t want our innovation”
- **Large Chemical Company:** “Years of Squeezing our suppliers has decimated our supply base; they’re now working for the pharma companies.” “We’re late to market too often.” “Our new Procurement VP just demanded we get a 15% price cut from our suppliers!”
- **Large Hi-Tech Company:** “Seven years ago there were 21 suppliers of resistors and capacitors. Now only 3; and 2 are on the ropes.”
- **Large Manufacturer:** “Most of our European container suppliers are now out of business.”
- **Bicycle Manufacturer:** “We were #1 in our segment. Each year our seat supplier came to us with new innovations, but we turned them away, seeking price cuts instead. They went to our competitor with the new ideas, who was then #2. Now they are #1, and we are #2.”



# Diagnosis

- 1. What's Wrong with these Comments?***
- 2. What were the companies Overlooking?***
- 3. What type of Thinking created these problems?***
- 4. How Relevant are these difficulties to your company?***





## **What is the Purpose of a Supply Chain?**

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# ***Engines of Innovation***

- A. Get Low Prices without Sacrificing Quality***
- B. Keep the Pipeline filled JIT to ensure  
Production is Rolling & Orders Fulfilled***
- C. Meet Customer Needs***
- D. Provide Continuous Streams of Innovation***



# The Mistakes We Repeatedly Make

- **Focus on:**
  - Tactics and Tools  
Not Strategy & ReEngineering
  - Price & Power,  
Not Innovation, Speed, and Integration
  - Destruction of Supply Base by Win-Lose  
Not Problem Solving & Synergy in the Value Chain
  - Raping Suppliers, Onerous Terms & Conditions,  
Not Building the Supply Base as a Competitive  
Weapon
  - Using Outdated Thinking & Practices  
Macho-Style Negotiations, Component-Based Metrics





# ***Engines of Innovation***

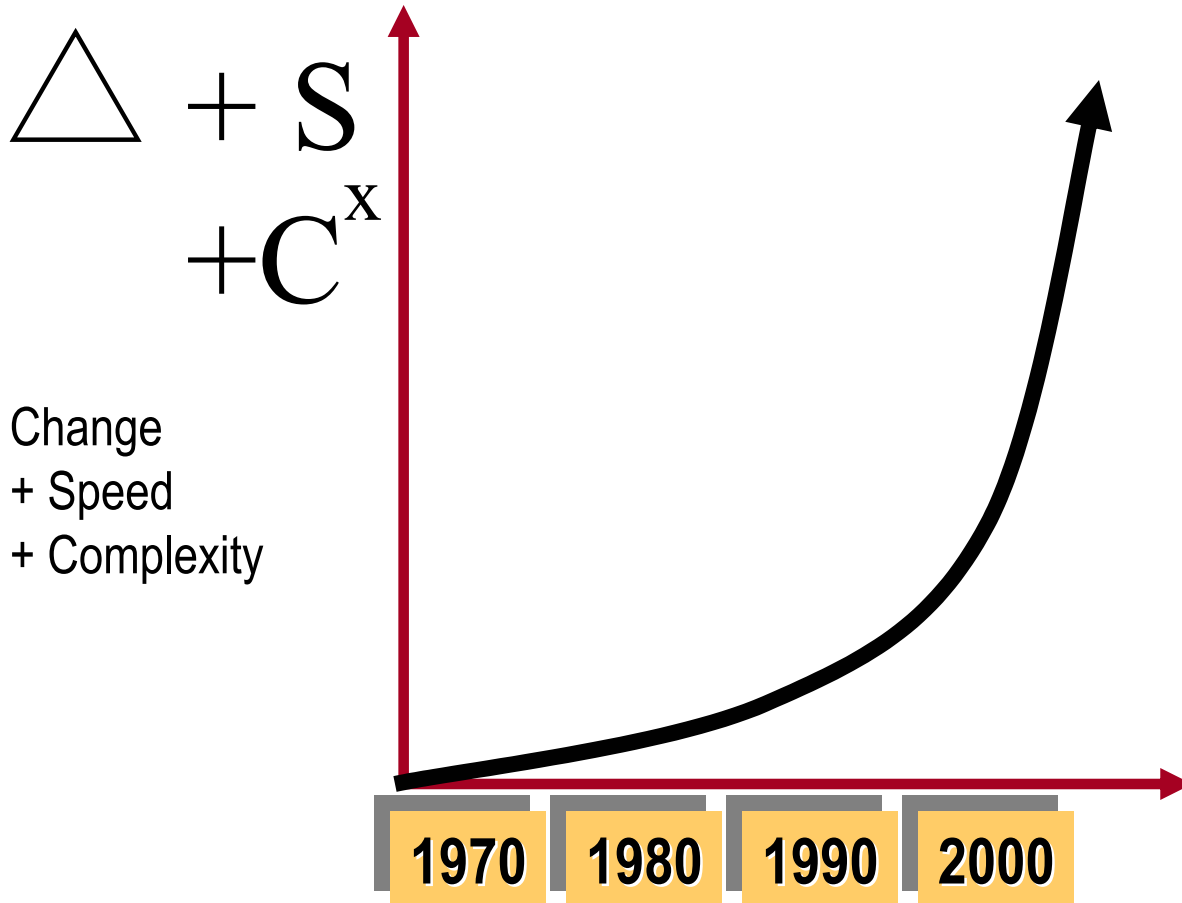
***How Do I Turn my  
Supply Chain  
into our Company's most Valuable  
Competitive Advantage?***





# *Engines of Innovation*

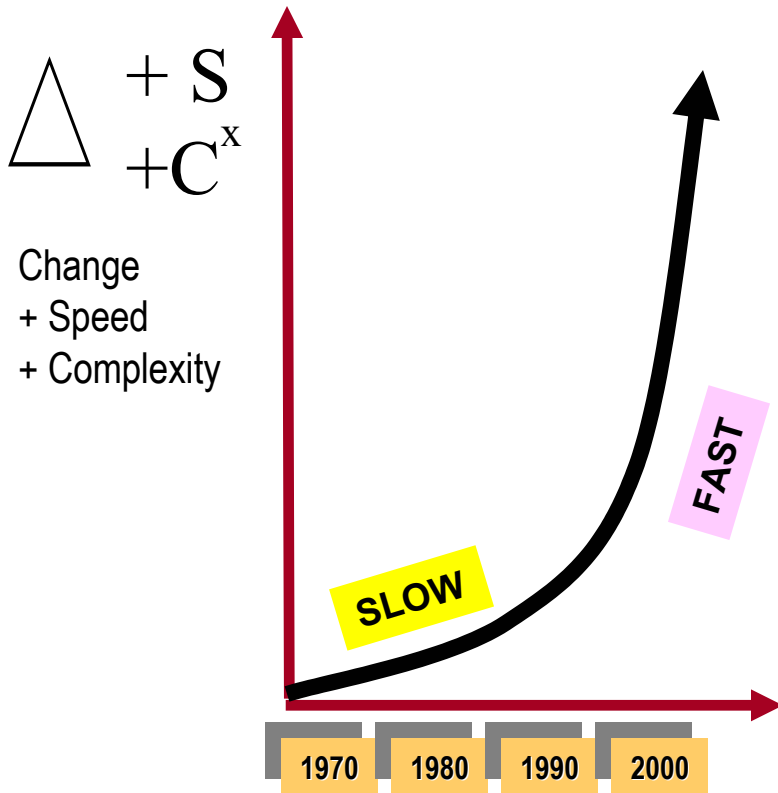
## *What's Happening Now?*





# Engines of Innovation

The World Changed!



Pace	Slow	Fast
Key Planning Characteristic	Predictable Linear Logical	Innovative Simultaneous Integrative
Command System	Control	Coordinate
Structure	Hierarchical	Alliances & Networks
Organizations	Separate	Integrated





**How Powerful are the Paradigm Shifts????**

***The Future Isn't  
What It Used to Be!***





# ***Engines of Innovation***

## **Five Things I want you to Remember**

- 1. You Cannot Cost-Cut your way to Prosperity***
- 2. In a Fast Moving World, Innovation is the most sustainable source of competitive advantage***
- 3. Innovation from Suppliers is typically the least costly, least risky, and often the fastest to market***
- 4. Strategic Suppliers require Alliances to produce Innovation***
- 5. Vision without Execution is Hallucination***  
(You don't have to be Perfect, Just Better than the Competition)





## **Supply Chain Study**

in Conjunction with University of San Diego Supply Chain Management Program



- ***What Percentage of Your Innovation comes from Suppliers?***
- ***KEY FINDINGS***
  - For Most Companies,
    - ***Cost Cutting was #1 Strategy with Suppliers***
    - ***Innovation was Neither a Priority Nor a Strategy***
    - ***Innovation was Neither Managed Nor Measured Nor Rewarded***
    - ***Best Practices in External Innovation was “Missing in Action”***
  - Consequences
    - ***Destruction of Supply Chains***
    - ***Loss of Industry Leadership***



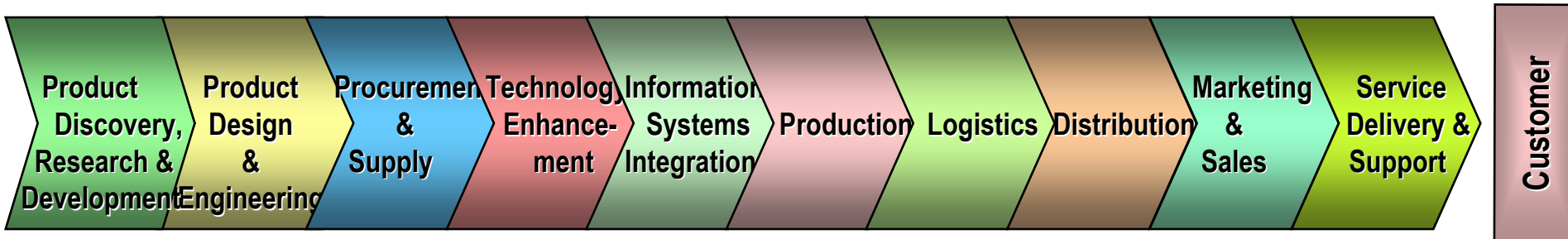


# ***Engines of Innovation***

## **The Immanent Battle of Value Chains!**

### **Competitive Advantage**

Is Created in the Value Chain



**The Race will go to the Thoroughbreds  
Swiftest + Most Innovative = Best of Breed  
(Best of Breed is not Price!)**





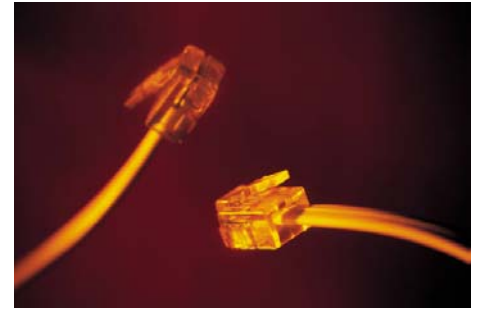
# ***Engines of Innovation***

## **The Battle of Value Chains**

*Value Chain either Creates or Destroys Corporate Power*

<b>INDUSTRY</b>	<b>DESCENDANCE</b>	<b>ASCENDANCE</b>
<b>Automotive</b>	<b>General Motors Ford</b>	<b>Toyota Honda</b>
<b>Computers</b>	<b>IBM HP/Compaq</b>	<b>Dell</b>
<b>Consumer Goods</b>	<b>Colgate</b>	<b>P&amp;G</b>
<b>Retail</b>	<b>K-Mart</b>	<b>Wal-Mart</b>
<b>Hi-Tech</b>	<b>Lucent AT&amp;T</b>	<b>Cisco Systems IBM</b>





***Where will My Company  
Get the Innovation It Needs  
to Thrive in a  
Rapidly Changing World?***







# *Engines of Innovation*

## Chemical Industry is not poised for the Future

### *And Mergers won't help*

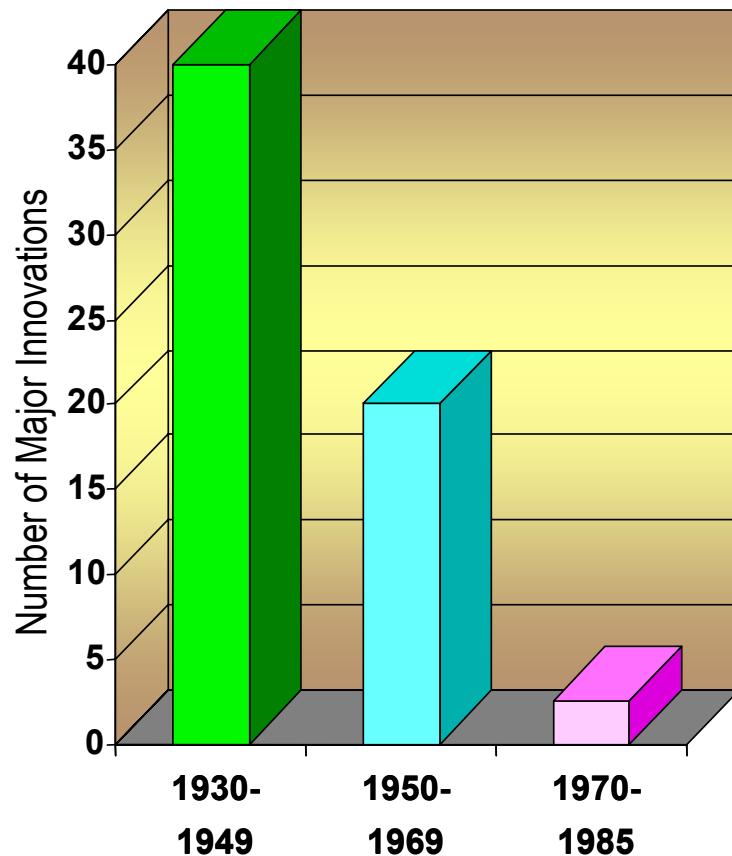
The Rate of Innovation in the Chemical Industry has ***Slowed Dramatically*** .....  
At the same time....

Innovation has ***Accelerated*** within End-Use Markets.....

Leaving Large Chemical Corporations ***Highly Vulnerable***

The Industry has become ***Inbred***  
Everyone thinks alike, thus ***incremental improvements***, but ***few breakthroughs***

***A new field innovates internally first, then when it runs out of steam, it must innovate from outside***



Source: MIT Commission on Industrial Productivity 1989





## ***Differentials in Thinking are the Principle Source of Innovative Thinking***



*With Best Process & Best Practice,  
Success Rates More than Double,  
thus:*

- Risks are Substantially Reduced*
- Returns are Greatly Increased*





# *Engines of Innovation*

## Innovation, Invention, & Creativity

### *Definitions*

- **Innovation:**

- *Transformation of a New Practice, Product, Process, Or Paradigm by an organization (company, team, alliance, etc)*
  - Unique collection of ideas or assets that synergistically yield new solution or result, unanticipated and unexpected
- *Adapting, adjusting, or altering that which already exists for the purpose of adding value.*
- Can be triggered by an Invention, or occur without a technological invention

- **Invention:**

- *The Creation of a New Idea, Object, or Technology*

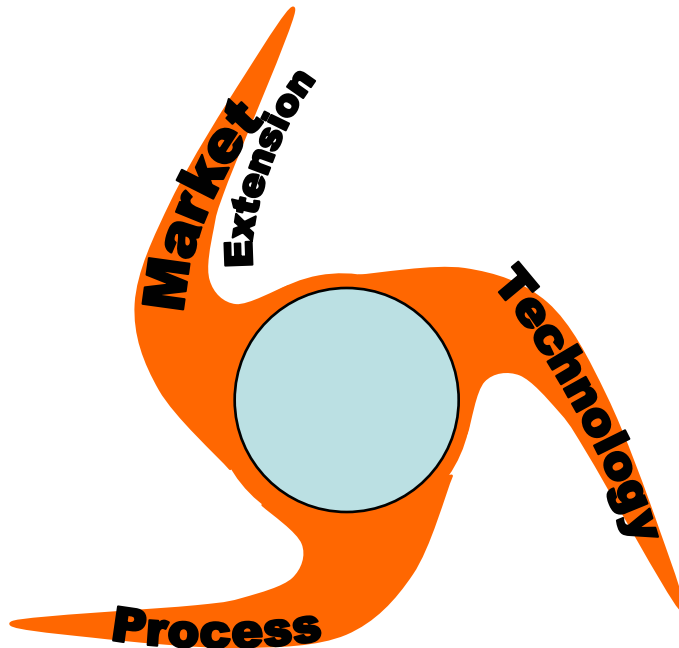
- **Creativity:**

- *To cause to come into being, as something unique that would not naturally evolve or would not exist via ordinary processes. Resulting from originality of thought.*





## Three Kinds of Innovation



### **Three Basic Kinds of Innovation:**

#### **1. Technical Innovation**

- Product
- Next Generation
- Continuous Improvements

#### **2. Process Innovation**

- Make Process
  - Simpler
  - Faster
  - More accurate
  - More Reliable
  - Less Expensive
  - More Integrated

#### **3. Market Extension Innovation**

- Develop Services to
  - facilitate Product/Technological Adoption and create value from usage
  - Introduce new value streams





# ***Engines of Innovation***

## Future Breakthroughs in Technology ...

**Will not be primarily from within industries  
& fields of thought,**

**but between the fields of thought.**

(Sometimes called Convergence or Technology Hybridization)

*Computers and Biotech = Genomics*

*Data Systems and Biotech = Bioinformatics*

*Chemicals and Biotech = Chemogenomics*

*Telecomm and Computing = Internet*

*Automobiles and Defense Electronics = GPS*

*Other Examples:*

*Internet and Home Construction*

*Teaching and Computing*

*GPS & Satellite Surveillance & Agricultural Chemicals*

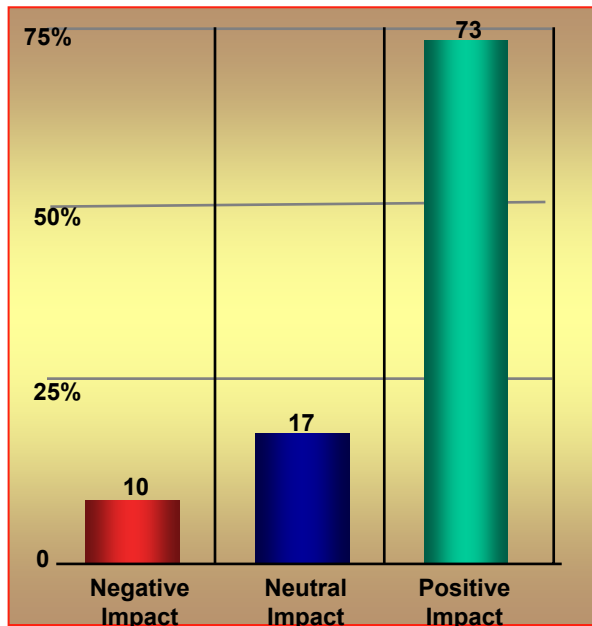




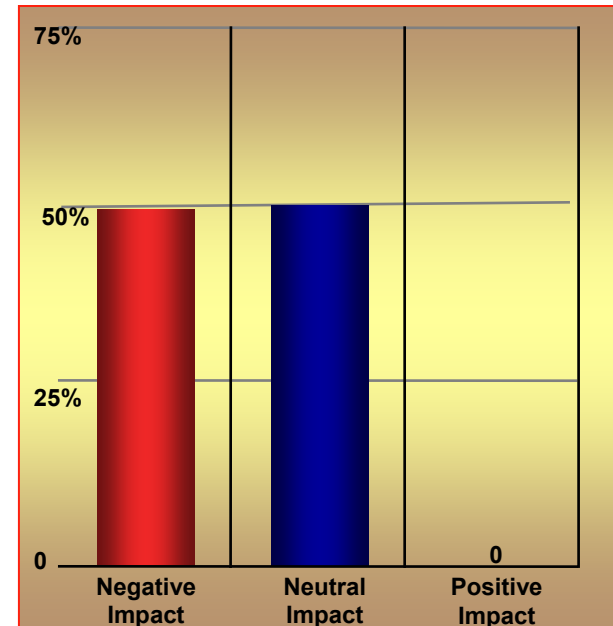
# Engines of Innovation

## Major Impact on Innovation & Competitive Advantage

### Impact of **Alliances** on Innovation



### Impact of **Mergers & Acquisitions** on Innovation



Source: 2002 Ministry of Economic Affairs in the Netherlands –University of Eindhoven Study -- Extensive literature review on the available empirical studies regarding the effect of strategic alliances and mergers and acquisitions on innovative performance

- University of San Diego Supply Chain Management Study of 244 companies:
  - 35% of all product innovation comes from suppliers.
- Evidence shows that the Best Companies derive upwards of 60% of their new product innovation from external sources.





## Lilly Example

*Lilly*

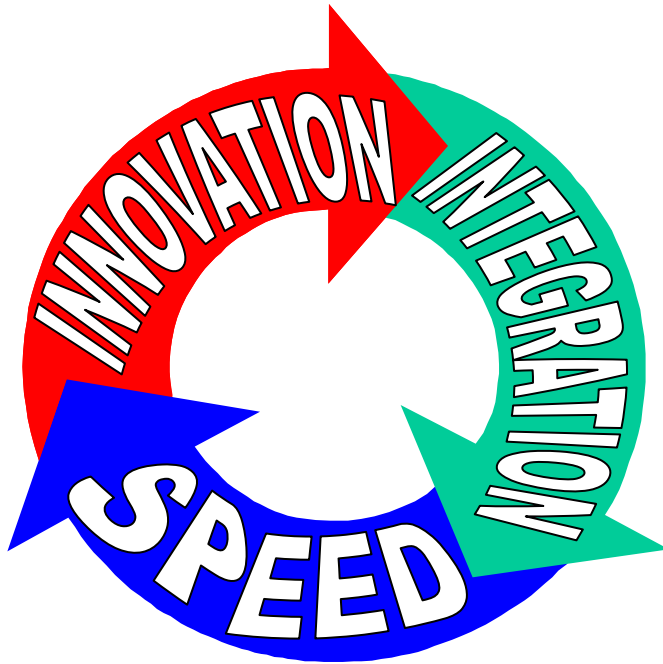
- 1999: Ranked **7<sup>th</sup>** as a “Partner of Choice” by Bio-Tech Companies
- Adopted Alliance Best Practice Models
- Lilly established an Office of Alliance Management to transform its relationships
- Focused on alliances in R&D, made no acquisitions
- 2003: Ranked **1<sup>st</sup>**
- Now has an **Abundance of Innovation**
- Has become “Partner of Choice” in the Pharma field -- the company bio-tech considers first when wanting to partner for a new compound.





# *Engines of Innovation*

## Innovation Travels with Two Companions



- ***Innovation Breeds Rapid Improvement & Change***
  - Requiring Acceleration in ***Speed*** of Everything
    - Communications
    - Decision-making
    - Fulfillment & Delivery
    - Problem Solving
  - Which Requires High Levels of ***Integration***
    - Coordination
    - Synchronization
  - Alliances become >>>>>??



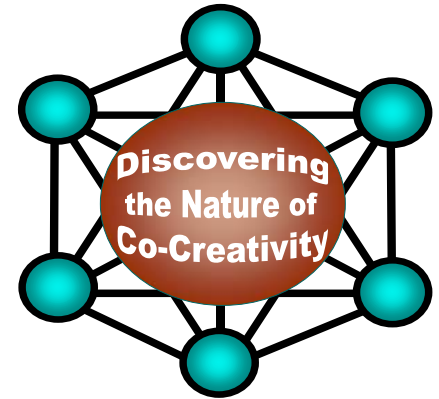




# ***Engines of Innovation***

## **Components for an ENGINE of INNOVATION Best Practices**

- 1. Strategies**
- 2. Leadership & Relationships**
- 3. Legal & Contractual**
- 4. Organizational Frameworks**
- 5. Performance Processes**
- 6. Econometrics**





# ***Engines of Innovation***

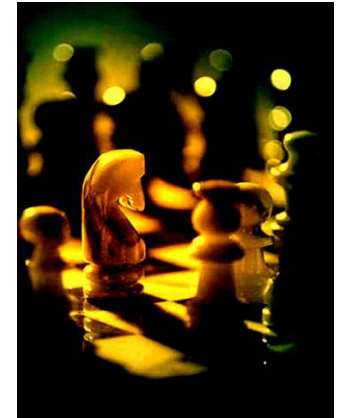
## **1. STRATEGIES**

*Leadership Issues*  
*Legal & Contractual*  
*Organizational Frameworks*  
*Performance Process*  
*Econometrics*



# ***Engines of Innovation***

## **Strategic Imperative:** *Corporate Rationale for Innovation*



- ***Most Sustainable Competitive Advantage in a Fast Moving, Rapidly Changing World***
- ***Only Way to Keep Alliances Regenerative***
- ***Leverages Vast Resources most Effectively & Efficiently***





# ***Engines of Innovation***

## Corporate Policy for Innovation

- **Written**
- **Clear**
- **Focused**
- **Promulgated**
- **Supported**
- **Operationalized with**
  - Programs
  - Processes
  - Practices
  - Rewards
  - Metrics

## Innovation Policy Example

- ***Innovation is Essential for our future***
- ***Innovation Comes from Inside, Outside, and Across our organization.***
- ***Innovation comes from successfully Connecting Differentials in Thinking***
- ***Innovation does not reside solely in R&D***
- ***Process Innovation is Equal to Technology Innovation is Equal to Market Extension Innovation***
- ***Innovation must create some Competitive Advantage; Innovation for Innovation's sake is not valuable***
- ***Much Innovation is Free, it bubbles up from the Wellsprings of Collaborative Minds***
- ***Innovation Must be Measured and Rewarded***
- ***We will seek to create a Culture of Innovation***
- ***All our relationships are potential sources of Innovation:***  
***We will look across our entire set of connections for innovation possibilities***





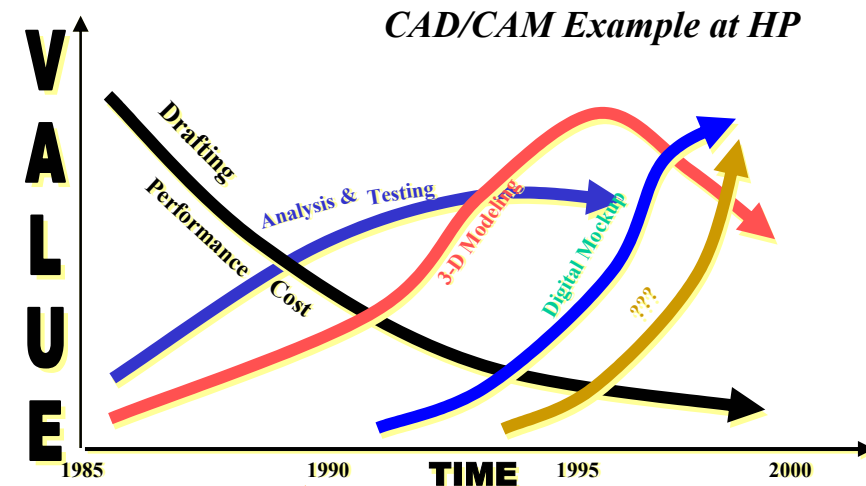
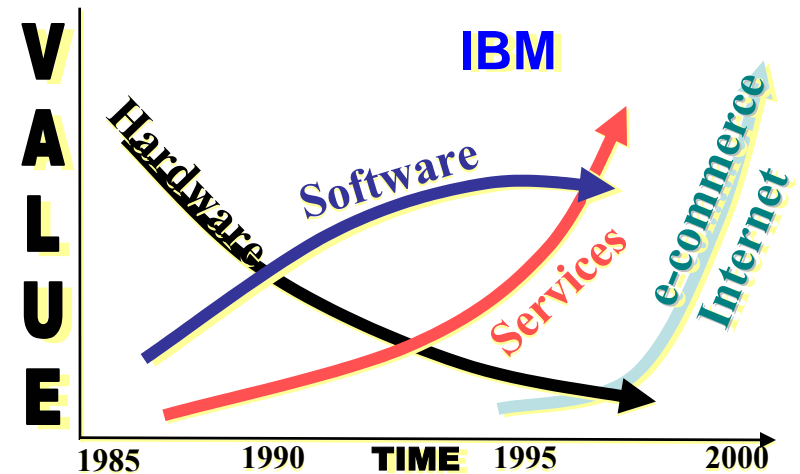
# Engines of Innovation

## Using Value Migration to Stimulate Innovation

### Why Value Migrates

- Technology Changes
- Unmet Needs
- New Entrants with New Solutions
- External Environment Changes
- Companies with New Rules of the Game
- Cultural Differences
- Integrated Solutions
- Speed

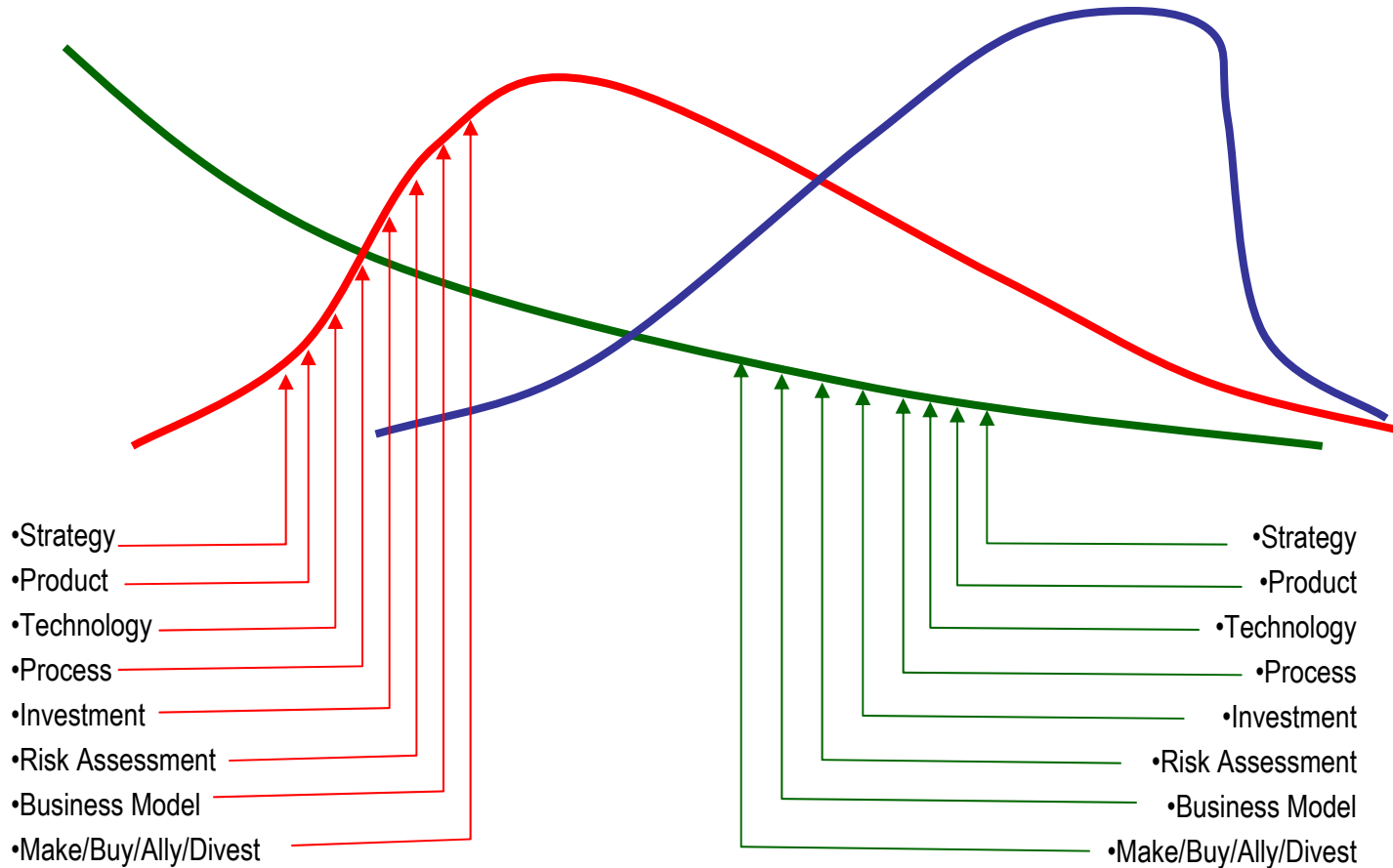
- **Innovation is Essential to Keep on the Value Migration Power Curve**





# Engines of Innovation

## Strategic Value Evolution Planning





## **Strategies for Innovation**

- **Set A Goal**

- Do you want more discovery and invention to come from **OUTSIDE** the company?

- Rationale?

- Where will the Innovation Come From?

- How Much? What Metrics?

- P&G

- **50% of our innovation will come from Outside Sources**





# Engines of Innovation

## Innovation Sourcing Universe

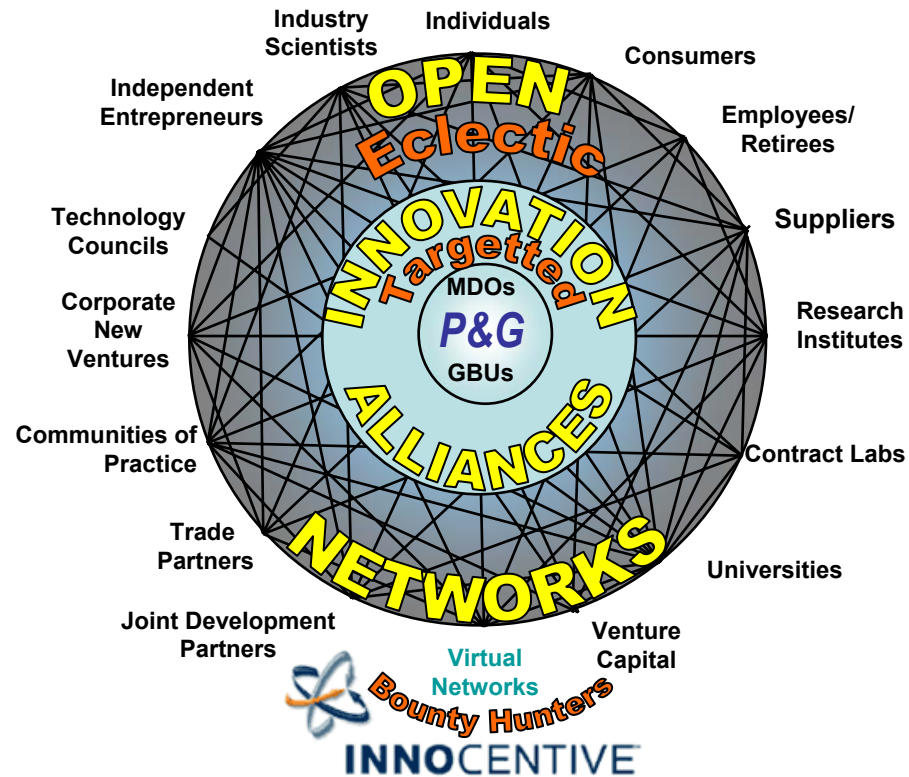
(P&G Example)

### Where Do You Find Innovation?

- **Traditional Answer: R&D organization in house.**
- **Today's Answer: External networks and internal networks.**
- **For P&G Research and Development is becoming "Connect and Develop"**
  - The Supply Chain is a key part of that network.
  - "We will acquire 50% of our technologies and products from outside P&G." – **A.G. Lafley**
  - P&G has fueled its innovation capability by leveraging external innovation assets and partnerships to deliver superior P&G products and services at greater value to consumers.
- **Turn Platitudes into Policies & Programs**
  - "Connect & Develop" Program
  - Value Chain Analysis
    - » Triage the Supply Chain
    - » Supplier Relationship Management Program
    - » General Business Services – Outsourcing Relationships

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# Engines of Innovation

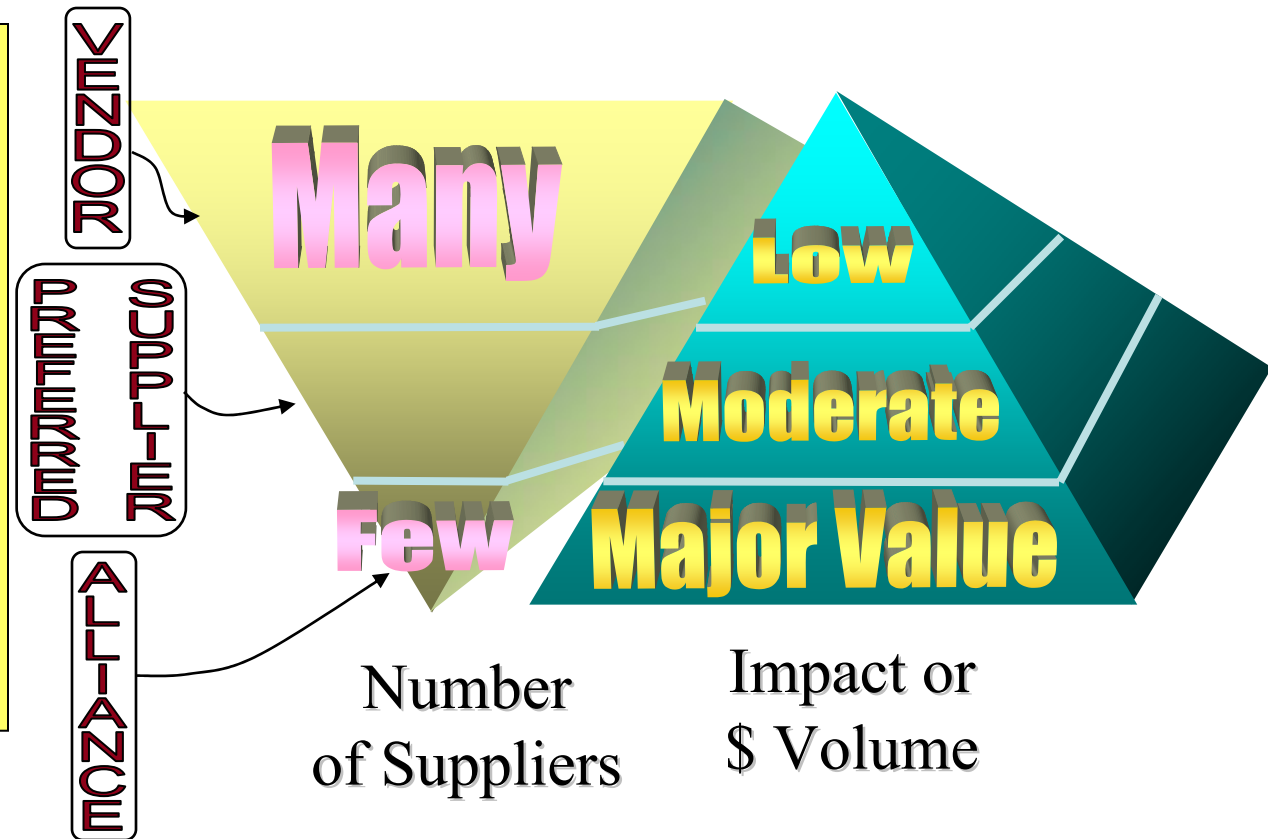
## Triage Supply Base

### First Step is Triage:

- Who are key players?
- How do different functions/businesses see it?
- Manageable list

### Triage Criteria

- Spend (\$)
- Consumer Noticeable Innovation
- Willingness to Link Strategically
- Chronic Supply Issues
- Range of Interactions
- Future Potential Value





# ***Engines of Innovation***



**Identify five Strategic changes that would make a substantial improvement in Innovation we gain from Suppliers:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_





# ***Engines of Innovation***

*Strategies*

## **2. LEADERSHIP & RELATIONSHIPS**

*Legal & Contractual  
Organizational Frameworks  
Performance Process  
Econometrics*



## **Senior Exec's Responsibility**

**Make INNOVATION A TOP PRIORITY  
& TOP PROGRAM**

**Any Company without  
a World Class Innovation Engine,  
IS AT RISK of DEMINISHMENT**

**This means NEW THINKING & NEW ARCHITECTURE**

**Vision without Execution is  
Hallucination!**





# ***Engines of Innovation***

## **Senior Executives Must Systematically Institute Innovation**

- ***Support the Innovation Strategy***
- ***Empower Innovation Champions***
- ***Shift the Legal Processes***
- ***Build the Organizational Systems***
- ***Put Programs and Best Practices in Place***
- ***Develop the Econometric System***

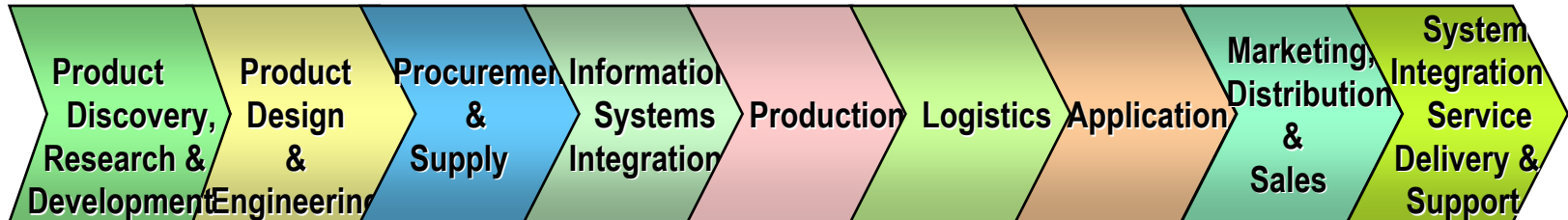




# *Engines of Innovation*

## Role of Innovation Champions

for each point on the Value Chain



- ***Advocate for Collaborative Innovation, Convert Skeptics, Avoid Cynics.***
- ***Install Best Innovation Practices Implement Programs of Action***
- ***Build Trust – Individual & Institutional***
- ***Overcome the Biggest Obstacles Fight for Survival of Innovation***
  1. Prevent Corporate Immunal Rejection Response
  2. Prevent Not Invented Here
  3. Combat Procurement Mentality & Component Metrics
  4. Desire for Homeostasis and Control
  5. Tactical-Transactional Contracting





## **Champions of Innovation**

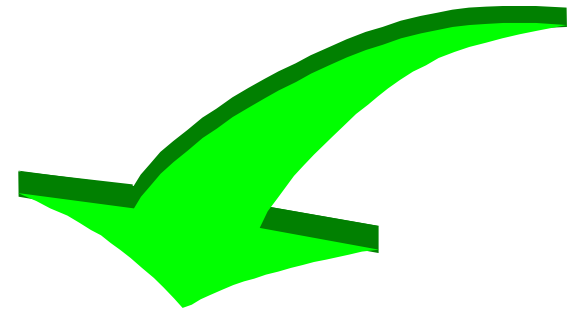
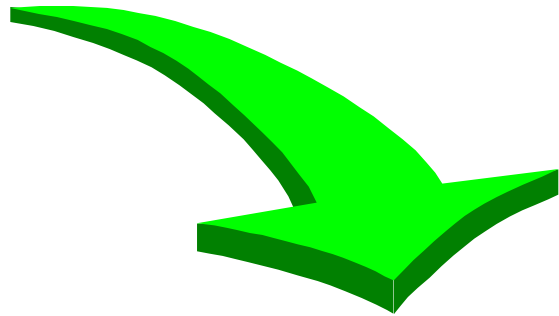
- **Advocate:** → **Laud**
- **Educate:** → **Learn**
- **Initiate:** → **Lead**
- **Coordinate:** → **Link**
- **Proliferate:** → **Lure**
- **Motivate:** → **Lift**





# ***Engines of Innovation***

**Leadership**



***Identify five Leadership changes that would make a substantial improvement in Innovation we gain from Suppliers:***

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_







# ***Engines of Innovation***

*Strategies  
Leadership Issues*

## **3. LEGAL & CONTRACTUAL**

*Organizational Frameworks  
Performance Process  
Econometrics*



# Engines of Innovation

## The Crown Jewels

Two Different Schools of Thought  
Intellectual Property



- **Protective**  
**Existing School of Thought**
  - PRIORITY:  
PROTECT CURRENT GENERATION  
My intellectual Property is MINE  
(But someone might cannibalize our IP)
  - I will protect the property with Legal Means, Penalties, and Litigation
  - You pay me Royalties and a Licensing Fee
  - Horde, Defend, & Protect
  - Patent Protection, Non-Compete, Exclusivity
  - Legal Doctrine
    - Owner enforces
    - Clear ownership
    - Rights to market, sell, etc
    - High Chance of Litigation
- **This works in a Slow Moving world where the technology has longer lifetimes**
- **Generative**  
**New School of Thought**
  - PRIORITY:  
Co-CREATION of NEXT GENERATION  
(We will opt to Cannibalize or License our old IP)
  - Regeneration/OPEN Systems
  - Optimize Value
  - Collaboration Extension
  - Speed to Market is Critical to Economic Success
  - Share & Proliferate
  - Joint Patents, Joint Development Agreements, Tech Transfer, Joint Ownership
  - Fairness Doctrine
    - Deepest Interest Enforces
    - Change terms to keep Win-Win
    - No Chance of Litigation
- **This works in a Fast Moving world where the technology has shorter lifetimes**





## **Generative Legal Approach**

- ***Creates Clear Expectations & Builds Trust***
  - The New Paradigm of Intellectual Property is an **ABUNDANCE** oriented **PARADIGM** that assumes:
    - » IP is often generated by Multiple Parties, often in Alliance with each other
    - » IP is a Continually Renewing set of ideas that, in an alliance, will be Regenerating, therefore IP must be **shared** in order for it to **Expand\***
    - » To retain Competitive Advantage, the Co-Generation of new IP among alliance partners is critical, and the establishment of a Regenerative System of Continually Improving IP is more important than being stuck with an old, dysfunctional IP that is outdated soon after it is created.\*
- ***The Value of IP is short-lived in a fast-moving world, and therefore its renewal and regeneration and future new royalty streams are just as important as its protection and current royalty streams.***





## Legal & Contractual

### 1. Review All Legal & Contractual Documents

- Should it be a Tactical Transaction or Strategic Relationship?
  - If it should be a Strategic Relationship, do the terms & conditions promote the objective?
- Does it Promote Innovation?
  - Technology Innovation & Next Generation Development?
  - Process Innovation?
- Does it Build a Long-Term Relationship?
- Does it Share Risks & Reward?
- Does it Focus on Speed to Market?
- Does it Enable better Integration?

### 2. Review Your Negotiations Approach

- Does it Stand for Win-Win?
- Is it Mutual, Fair, and Flexible?
- Does it Build Trust and Creativity?
- Does it Create a Joint Strategy for Innovation?

### Generative Approach to Legal Agreements

#### Objective: Ensure Getting Right Agreement in place will Never Delay Joint Projects

- Set of model agreements covering all phases of a new initiative
- Agreements are effective retroactively
- Joint activities started as soon as two directors agree by e-mail
  - no need to wait for signatures
- **Best Examples:**
  - P&G
  - Cisco





## Legal & Contractual Best Practices

### • **P&G Example**

#### **(used with Novozymes)**

- Master Legal Agreement with Guiding Principles:
  - Five Standard Agreements (depending upon where we are in the development process)
  - Allows us to start work because we know what the agreement will be before hand.
  - We just insert our details in the framework, and file the agreement.
  - Ensures getting right agreement in place will never delay joint projects
  - Set of model agreements covering all phases of a new initiative
  - Agreements are effective retroactively
  - Joint activities started as soon as two directors agree by e-mail – no need to wait for signatures

### • **Cisco Example**

- Abandoning Boilerplate Contracts
- Litigation is a Defensive Strategy only, Patent Portfolio is a defensive weapon
  - if another company threatens suit, I have option to retaliate
- Adopt technology, diverse industries confronted with change
- Not Driven by Licensing Mentality
- Four Hard Stops:
  1. Protect IP (Defensively, not Offensively)
  2. Limit Liability
  3. No Consequential Damages
  4. Choice of Law is Reliable & Enforceable.
    - *Everything else is flexible.*
- Moving to Contract-BUILDER Tools
  - » Common Terms
  - » Domain-Specific Frameworks
  - » Domain-Specific Alterations
  - » Geographic-Specific Alterations
  - » Contract “Lite”
- Training Programs to Enable people in the Field to Operationalize Contracting Process
- Better Integration Between Legal, Contracting, & Procurement
- Legal Department not run by Legal People





# Engines of Innovation

## Master Intellectual Property Agreements

- **Set Legal Ground Rules in Advance of any Discovery**
- **Fairness Principle**
- **Reasonable Assurance of Mutual Reward**
- **No Chance of Litigation**

- Step 1: Outline the Possible Situations/Circumstances
- Step 2: Clarify the Mutual Objectives
- Step 3: Define what constitutes a Win-Win
- Step 4: Stipulate the Guiding Principles
- Step 5: Determine Signing Authority

1) SITUATION Or DEVELOPMENT STAGE	2) OBJECTIVES	3) WIN-WIN DuPont   Supplier		4) GUIDING PRINCIPLES	5) SIGNING AUTHORITY
Supplier creates innovation solely					
Supplier combines their innovation with DuPont Innovation					
Supplier Shoulders Most of Risk Burden					
DuPont Shoulders most of Risk Burden					
Idea Comes from One Party, Development Comes from the Other					

EXAMPLE





## **Importance of Speed to Market**

- **Best Legal Practices**
  - Key Factors for Success
    - Speed to Market
      - » 1st to Market = 50-60% market share
      - » 2nd to Market = 30-40% market share
      - » 3rd, 4th, 5th = remaining 10-15% market share
    - Cost of Saving a Day
      - » Rapid Problem Solving
      - » Co-Location
    - Experienced and Adept Integrators Use a team approach (R&D, Purchasing, Lawyer) to determine what field of innovation will be central
    - Use Patent Lawyers rather than Contract or Licensing Lawyers, (they are generally easier and more flexible)
      - » Use lawyers that see themselves as “Enablers of Innovation” (Not Protectors of Property Rights)





# Engines of Innovation

## Regenerative Value Networks

### Best Practices – Corporate Example

- **Unipol Technology**

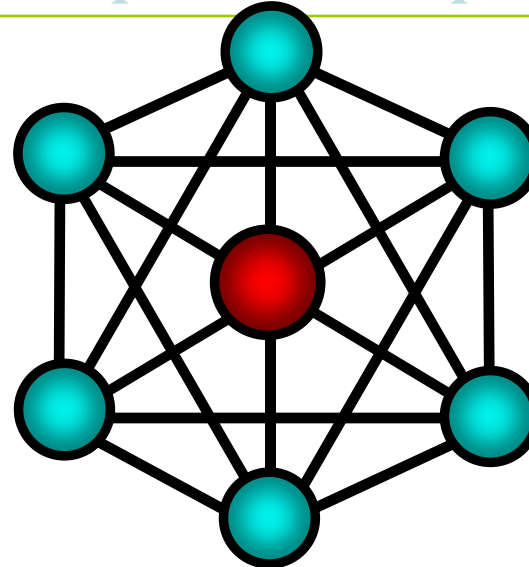
- 1<sup>st</sup> Generation Invented by Union Carbide in 1970's
- Licensed to Competitors with Royalties returning to Union Carbide

- **Unique Aspects**

- Licensees were also Alliance Partners:
  - Flow Forward → ← Flow Backward
  - Encouraged to Upgrade, Improve Upon, and Adapt
  - Required to SHARE upgrades with other licensees in a Cooperation Agreement
  - Received Portion of Royalty Stream if Upgrade was Significant

- **Results**

- Several Generations of Improvement = REGENERATIVE SYSTEM
- Still holds commanding position in its field



- **Laws:**

- Entropy Exists only in Closed Systems
- Synergy  $1 + 1 > 3$  ..... ∞
- Synchronicity
- Evolution occurs on the Fringes
- Sharing Expands, Hording Contracts
- Open up the Number of Inputs and Flow of Differentials for Evolution by expanding from Supply Chain to Value Chain to Value Networks







# ***Engines of Innovation***

## **Legal & Contractual**



***Identify five things that would make a substantial improvement in the Legal & Contractual way we work with Suppliers:***

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_





# ***Engines of Innovation***

*Strategies  
Leadership Issues  
Legal & Contractual*

## **4. ORGANIZATIONAL FRAMEWORKS**

*Performance Processes  
Econometrics*



# ***Engines of Innovation***

## **Organizational Frameworks**

### **STRUCTURE & INTEGRATION**

#### ***Shifting the Organization to Handle a Fast Moving Innovative World***

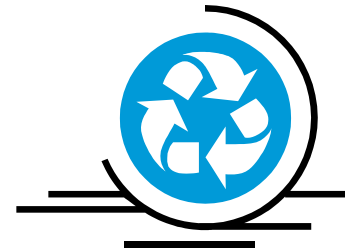
- ***Managing Ambiguity & Uncertainty***

#### ***Internal Organizational Connectivity***

- ***Cross Functional Teams***
- ***Linking R&D to Procurement & Strategy***
- ***Cross Business Unit Integration***
- ***Managing Innovation at Every Point in the Value Chain***

#### ***External Organizational Connectivity***

- ***Alliances Relationships***
- ***Business Process Outsourcing Relationships*** (IT, HR, Manufacturing)
- ***Linking Solutions Providers or Systems Integrators or Compatible Suppliers***
- ***Build network nodes where talents & ideas are aggregated***



### **ATTITUDES & BELIEFS**

#### ***Culture of Collaborative Innovation***

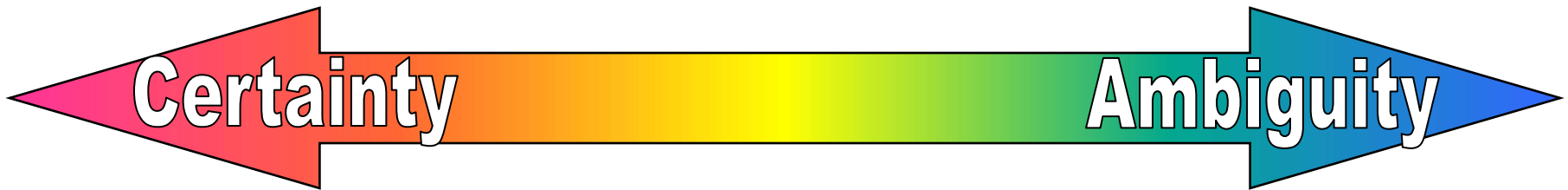
- ***Values – Interpersonal & Discovery***
- ***Behaviors & Rewards***
- ***Prevention of non-synergistic Actions***
- ***Managing Knowledge & Learning***





# ***Engines of Innovation***

## Shifting the Organization to Handle a Fast Moving Innovative World Ambiguity-Certainty Continuum



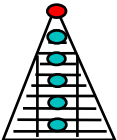
Stability and Predictability

Routines Required

Anticipated Problems

Developments Within Organiz. Control

Info Clear & Adequate



Hierarchical Task Mgmt Style

Decision Making @ Higher Levels

Mature Personnel Needed at Higher Levels

Tighter Structures Needed

Decision Dominance over Lower Levels

Predominant Vertical Info Flow

**CONDITIONS**

If

Then

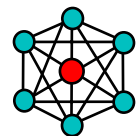
Dynamic change

Innovation Required

Unanticipated Problems

Developments Outside Organiz. Control

Info Unclear or Inadequate



Collaborative Mgmt Styles

Decision Making @ Lower Levels

Mature Personnel Needed @ All Levels

Looser Structures Needed

Shared Decision Making

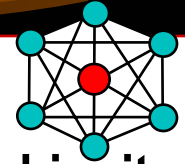
Predominant Lateral Info Flow

**MANAGEMENT FUNCTIONS**





# Engines of Innovation



## Managing Ambiguity and Certainty

**Certainty**



**Ambiguity**

<b><i>Situation is Repetitive Covered by Rules</i></b>	<b><i>Situation is Complicated, Multiple Forces</i></b>	<b><i>Situation is Complex, Interconnected</i></b>	<b><i>Situation is Chaotic, Paradoxical,</i></b>
<i>Issues Known and Stable Future is Relatively Predictable</i>	<i>Issues Can be Known Future is Probable</i>	<i>Multiple Unknowns Future is Vague</i>	<i>Multiple Unknowns &amp; Changing, Future is Unknown</i>
<i>Impose Laws, Rules &amp; SOPs</i>	<i>Impose Guidelines/Forecasts</i>	<i>Impose Best Process/Practice</i>	<i>Impose Principles</i>
<i>Proven Operating Procedures Stability is Desired/Possible</i>	<i>Use Judgment &amp; Experience Decision Making Criteria</i>	<i>Use Intuitive Thinking Trust is Essential</i>	<i>Use Creativity &amp; Intuitive Thinking, Prolific Innovation</i>
<i>Decide by Reason/Rationality</i>	<i>Analysis of Components</i>	<i>Examine Scenario Options</i>	<i>Create/Influence Scenarios</i>
<i>Everyone Follow the Book/Contract</i>	<i>Use Intelligence &amp; Knowledge</i>	<i>Rely on Wisdom &amp; Principles</i>	<i>Wisdom &amp; Creativity</i>
<i>Focus on the Right Answer, Optimize Efficiency</i>	<i>Focus on Key Priorities Gain Proficiency</i>	<i>Focus on Systems Interaction Manage Interfaces</i>	<i>Focus on Opportunities &amp; Questions, Aim for Zone</i>
<i>Reward Right Behavior Accept No Deviation</i>	<i>Use Teamwork &amp; Alignment Cross Functionality</i>	<i>Flexibility &amp; Coordination Adaptive Frameworks Needed</i>	<i>Rapid Response Teams &amp; Multiple Rapid Experiments</i>
<i>No Tolerance of Differences</i>	<i>Tolerance of Differences</i>	<i>Support &amp; Value Differences</i>	<i>Nurture Differences</i>
<i>Efficiency, Return on Investment</i>	<i>Continuous Improvement</i>	<i>Quantum Jumps in Productivity</i>	<i>Breakthrough Paradigm Shifting</i>
<i>Position in Existing Markets</i>	<i>Multiple Market Forces</i>	<i>Changing Market Conditions</i>	<i>Incubate Emerging Markets</i>

**(Work in Progress – Your Ideas are Encouraged!)**

Portions Adapted from David Snowden,  
IBM Centre for Organizational Complexity



**THE WARREN COMPANY**  
Copyright 2005



## **Internal Organizational Connectivity**

- ***Cross Functional Teams***
- ***Linking R&D to Procurement & Strategy***
- ***Cross Business Unit Integration***
- ***Managing Innovation at Every Point in the Value Chain***
  - Technology Innovation
  - Process Innovation





## **External Organizational Connectivity**

- ***Alliances Relationships***
  - with Suppliers, with Portfolio Management & Governance System
  - Discovery & Development
  - Solution Systems
- ***Outsourcing Relationships***
  - IT, HR, Manufacturing
- ***Linking Solutions Providers or Systems Integrators or Compatible Suppliers***
- ***Build network nodes where talents & ideas are aggregated***
  - Customer Networks → with end users
  - Supplier Networks → Bring Suppliers into Innovation Networks





# ***Engines of Innovation***

## **Culture of Collaborative Innovation**

### **ATTITUDES & BELIEFS**

### **Create Self-Fulfilling Prophecies!**

#### ***Therefore we Must Manage:***

- ***Values – Interpersonal & Discovery***
- ***Behaviors & Rewards***
- ***Prevention of Non-Synergistic Actions***
- ***Knowledge & Learning***

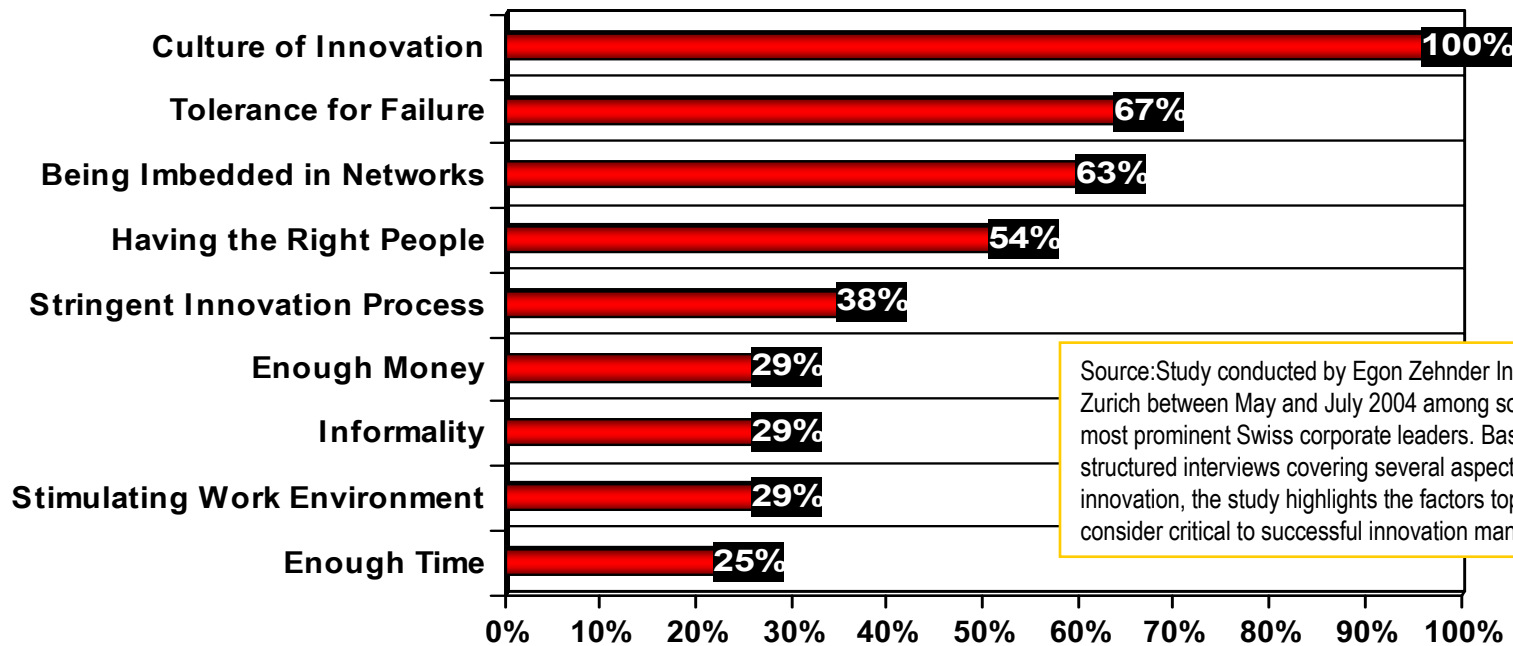






# Engines of Innovation

## Success Factors for Innovation



Source: Study conducted by Egon Zehnder International Zurich between May and July 2004 among some of the most prominent Swiss corporate leaders. Based on structured interviews covering several aspects of innovation, the study highlights the factors top executives consider critical to successful innovation management.

### CEO Comments:

*“A culture of innovation has been established when change is perceived as an everyday occurrence.”*

*“You only get the ten percent of innovations that succeed if you are ready to accept the ninety percent that fail,”*

*“If you never failed, you never dared.”*

*“Relieve failures of their negative aura by calling them ‘lessons learned’ or ‘learning opportunities.’”*

*“It’s a mistake to punish innovative people for failures, particularly in industries with very short product cycles, where decision-making is invariably faster and often based on incomplete knowledge.”*





## Core Cultural Values

- **From the Robert Shapiro  
CEO, Monsanto**

1. **Customer focus:**

- To be an organization that is fanatically dedicated to customers.
- To anticipating customers' needs in a changing marketplace.
- Always attacking the status quo by doing something superior to what's out there today.

2. **Openness to newness and diversity:**

- In a world that's changing, we don't want an attitude that says, "I don't like change much, how do we stop it?"
- When something new comes along, we want to react by saying, "How do we make use of it? How do we get out ahead of it?"
- We need to have people who recognize:
  - that success and survival are based on anticipation, not on hanging on to the past.
  - that are linked as a matter of psychological habit to acceptance of diversity.

3. **Environmental responsibility:**

- Monsanto has a special commitment to environmental protection, to sustainability.

- **From Jack Welch  
CEO, General Electric**

GE Leaders... Always with Unyielding Integrity:

1. Have a **Passion for Excellence** and **Hate Bureaucracy**
2. Are **Open to Ideas from Anywhere...** and Committed to Work-Out
3. **Live Quality...** and **Drive Cost and Speed** for Competitive Advantage
4. Have the Self-Confidence to **Involve Everyone** and Behave in a **Boundaryless** Fashion
5. Create a Clear, Simple, **Reality-Based Vision...** and **Communicate It** to All Constituencies
6. Have **Enormous Energy** and the Ability to **Energize Others**
7. Stretch... **Set Aggressive Goals...** **Reward Progress...** Yet Understand Accountability and Commitment
8. See **Change as Opportunity...** Not Threat





## **Create an Innovative Culture**

***Culture: "The sum total of values, norms, assumptions, beliefs and ways of living built up by a group of people and transmitted from one generation to another."***

- ***Culture of Synergistic Innovation***

- Discovery (Hidden Treasures)
- Enthusiasm (Energy & Motivation)
- Mutuality (Commitment to Win-Win)
- Shared Goals (Alignment of Vision)
- Teamwork (Co-Creativity & Connectivity)

- Vision
- Values
- Behaviors
- Rewards
- Metrics





## **Culture of Innovation**

***Starts with a pervasive attitude of constant improvement.***

- People may be happy, but nobody is satisfied with how things are.
- Nothing is ever truly finished--only in stages, because in the process of building and using what we create, we are already seeing ways to make it better.
- The culture, from top down, has to support and encourage and embrace constant questioning, exploration and experimentation. – *Cornell University*





## Innovation Begins with a Mindset

- ***“We will create one minor invention every 10 days, and a Big One every six months”***
  - Thomas Edison  
to his invention team at Menlo Park,  
1872

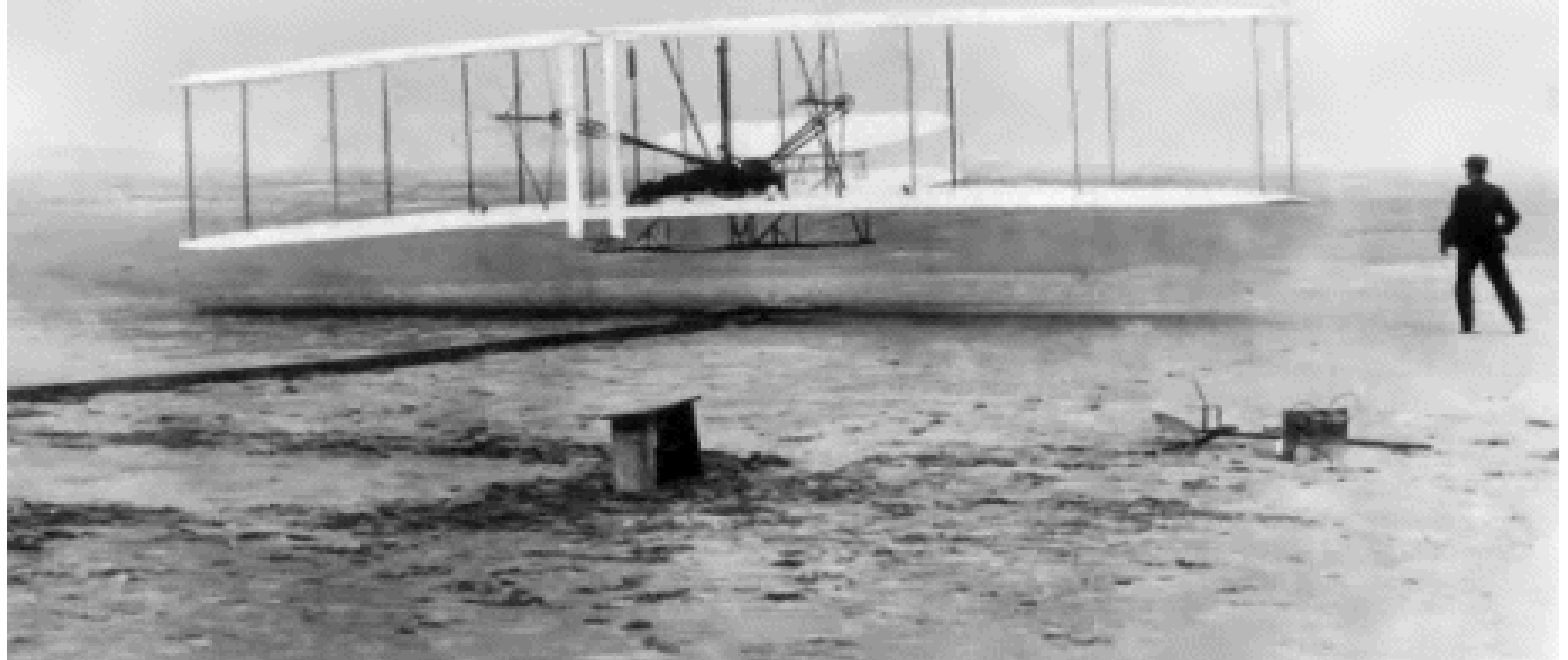




# *Engines of Innovation*

**After the Flight, Orville Wright Commented:**

**“Isn’t it astonishing that all these secrets have been preserved for so many years, just so we could discover them!”**



On December 17<sup>th</sup> 1903, the Wright Brothers first flew an airplane on a flight of 120 feet that lasted 12 seconds, beginning a revolution in aviation and exploration.





# ***Engines of Innovation***

**What Would You Do  
If a Supplier Came to you and said:**

***"So we went to Atari and said, 'We've got this amazing thing; it's even built with some of your parts! What do you think about funding us? Or we'll give it to you. We just want to do it. Pay our salary, we'll come work for you.'"***

***They said 'No'.***

***Then we went to Hewlett-Packard; they said, 'We don't need you. You haven't got through college yet'."***

(Apple Computer founder Steve Jobs on attempts to get Atari & HP interested in his and Steve Wozniak's personal computer.)

Lesson: Corporate Culture has significant impact on economic performance





# ***Engines of Innovation***

## **Organizational Frameworks**



**Identify six Organizational Changes that would make a substantial improvement in Innovation we gain from Suppliers:**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

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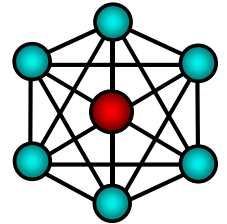


# ***Engines of Innovation***

*Strategies  
Leadership Issues  
Legal & Contractual  
Organizational Frameworks*

## **5. PERFORMANCE PROCESSES**

*Econometrics*



## **Performance Processes**

- **Separate: Supplier Relationship Management from Commodity Management**
  - Innovation is a People Process
  - Require & Reward Innovation from Your Suppliers
- **Set Up Joint Innovation Processes**
  - **Common Language, Architecture, Metrics**
    - Filling the Pipeline with Innovation
    - Triaging Innovation & Integrating Innovation
    - Managing Cooperation & Co-Creation
    - Fast Time Processes
    - Managing Breakdowns
    - Legal Processes for Joint Collaboration
    - Combating “Not Invented Here”





## **Cross-Boundary Processes**

- ***Integrators & Integration***

- Eclectic Resourcing
- Cross Bred
- Non-linear Thinkers
- Synthesis & Genesis

- ***Mechanisms***

- Connecting to the Customer
- Cross Training
- Co-Location
- Secondment
- Cross-Functional Teaming
- Breakthrough “Tiger Teams” and “Skunk Works”

- ***Install Fast Time Processes***

- Install Rapid Decision Making Procedure
- Cost of "Saving a Day"
- Stabilize Specs with Fast Adjustment
- Co-location of Development Team Members
- Cross Functional Core Teams
- Managing Controls without Delays
- Functional versus Process Management
- "Pull-In" Scheduling
- No-Trade-Off Paradigms

- ***Continuous Dialogue -- Negotiations***

- Co-Creative Negotiations
- Don't Compromise: Default to Innovation
- Using Breakthrough Thinking
- Using Breakthrough Processes
- Using Metrics & Benchmarking to guide Breakthroughs
- Keeping the Customer #1
- Keeping Score – over the long haul

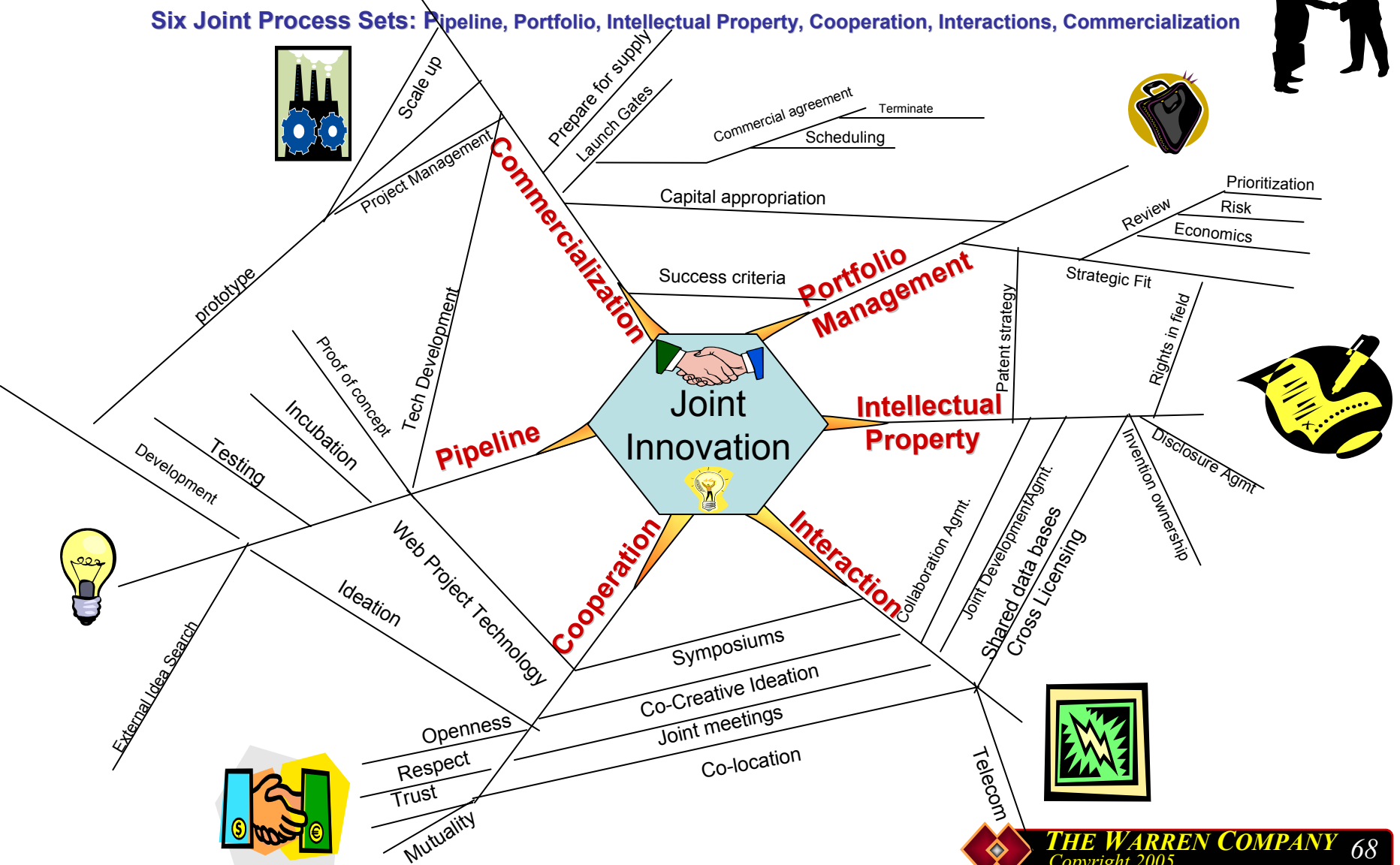
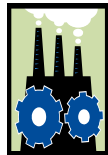




# Engines of Innovation

## Performance Processes for Innovation Across Boundaries

Six Joint Process Sets: Pipeline, Portfolio, Intellectual Property, Cooperation, Interactions, Commercialization





# Engines of Innovation

## Performance Processes Differentiation versus Integration



### Best Practices – Corporate Examples

- **Diversity of Thought → Innovation**
- **Unity of Execution → Integration of Processes & Practices**
  - Integration Processes & Integrators
  - Managing the Interfaces
  - Predict the Breakdowns
  - Co-Creative Culture
    - Sharing, Humor, Trust, Experimentation
    - Who Gets the Credit? (Famous)
    - Who Gets the Money? (Rich)

IP  
Company  
A

IP  
Company  
B

Key Role for Integrators

Interfaces are Points of Breakdown  
Turn Breakdowns Into Breakthroughs

Ideation Commercialization





# ***Engines of Innovation***

## **Performance Processes**



**Identify six Performance Process Changes that would make a substantial improvement in Innovation we gain from Suppliers:**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

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# ***Engines of Innovation***

*Strategies*

*Leadership Issues*

*Legal & Contractual*

*Organizational Frameworks*

*Performance Process*

## **6. ECONOMETRICS**



## Econometrics Establishing Metrics & Rewards



### ***How do we encourage outside suppliers to contribute their innovations to us?***

Interview with Bob Eaton, Retiring Chairman of Chrysler (prior to takeover by Daimler)

Question: ***What Value were your Strategic Supplier Alliances at Chrysler?***

Answer: ***“They brought us an endless stream of innovation.”***

Question: ***Did you Measure the Value?***

Answer: ***“We did not Measure the Value, but the Alliances were Invaluable.”***

Comment by Thomas Stallkamp: President Chrysler: (prior to takeover)

***“Suppliers are experts...part of a joint team focused on collaboration  
...contracts aren’t based on old style relationships but on allied business and  
engineering systems.”***

**Chrysler was very Profitable**, Then came the Acquisition by Daimler.....

Comment by Wolfgang Bernhard: COO Chrysler group of After the Daimler Takeover:

***“Supplier relationships based solely on competitiveness, no preference for the  
incumbent or reward for excellence...only competition.”***

**Chrysler then lost several billion dollars**







## **Econometrics**

- ***Measure of Value Added***
  - Total Cost of Ownership Essential
- ***Measurement Systems***
  - You only see what you measure
- ***Align Rewards with Metrics***
  - To Sustain Innovation, it must be Rewarded
- ***Diagnostics***
  - Monitor Performance and Relationship Regularly
- ***Promote, Promulgate, and Proclaim***
  - Let Everyone Know what has been Accomplished!





# ***Engines of Innovation***

## **Econometrics:**

*Change Currency from Price to Innovation*



### ◆ **Set Performance Metrics for Improvements & New Innovations to Maintain Competitive Advantage**

- **Product Improvements**
- **Service Improvements**
- **Technology Improvements**
- **Forecasting Improvements**
- **Productivity Improvements**
- **Quality Improvements**
- **Speed/Cycle Time Improvements**
- **New Processes**
- **New Products or Market Extensions**
- **New Services Delivery Capacity**
- **Integration of Solutions & Systems**
- **New Core Technologies**
- **New Delivery Mechanisms**
- **Technology Breakthroughs**
- **Faster Adaptation**

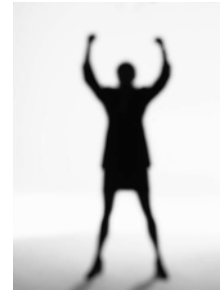
### ◆ **Align Rewards Systems with Metrics to Sustain the Shift**





## **Econometrics**

### **Not All Innovation is Created Equal!**



- **Poor Innovation**

- Too Costly
- Too Complex
- Too Unreliable
- Too many Bells & Whistles
- No Real Customer Need

- **Great Innovation**

- Affordable
- Fast Time to Failure
- Fast To Market at Right Time
- Customer Acceptance
- Low Maintenance, High Quality,
- KISS
- “Cooked Technology”  
Ready To Go/Tested Products
- Competitive Advantage
- Ease of Commercialization





## **Diagnostics**

- ***Regular Health Checks, Feedback & Action Planning***
  - Diagnostic Analysis
    - » 3-D Fit
    - » Strategic Return on Investment
    - » Priority Alignment
    - » Innovation Flow
  - Feedback & Action Planning Session
    - Strategic RelationShift<sup>SM</sup>





## **Rewards Alignment**

- ***Proclaim, Promote, Promulgate***
  - To Leadership & Innovation Champions
  - To Innovation Teams & Partners
  - To Skeptics & Cynics
- ***Be Sure Rewards are Aligned with Metrics***
  - Financial Rewards
  - Psychological Rewards





# ***Engines of Innovation***

## **EconoMetrics**



***Identify five EconoMetric Changes that would make a substantial improvement in Innovation we gain from Suppliers:***

- 1.
- 2.
- 3.
- 4.
- 5.

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## **Wrap-Up**

- ***What's Missing?***
- ***What's Possible?***
- ***What Shifts in Thinking?***
- ***What Should We Do?***
- ***What Do We Recommend?***





## Wrap-Up

- ✓ *Observations*
- ✓ *Key Priorities*
- ✓ *Critical Issues*
- ✓ *Challenges*
- ✓ *Dilemmas & Paradoxes*

[www.EnginesofInnovation.com](http://www.EnginesofInnovation.com)







# ***Engines of Innovation***

## **Appendix**

### ***Risks of Innovation*** ***Obstacles to Innovation***



# ***Engines of Innovation***

## **Econometrics Risks & Rewards of Innovation**



- ***Risk of Creation – Chances of Failure***
- ***Risk of Protection – IP and Knockoff***
- ***Risk of Proliferation – Distribution***
- ***Risk of Acceptance – Consumer, Retailer, Corporate Buyer***
- ***Risk of Timing – Too Late, Too Early***
- ***Risk of Production – Design for Production, Service & Operations***
- ***Risk of Obsolescence – Next Generation comes to soon***
- ***Risk of Myopia – Future will be a Reflection of the Past***
- ***Risk of Diversion – of energy, resources, and time***
- ***Other Risks.....***





## **Obstacles to Innovation**

- **Lack of a shared vision, purpose and/or strategy**
- **Innovation not articulated as a company-wide commitment**
- **Lack of ownership by Senior Leaders**
- **Constantly shifting priorities**
- **Short-term thinking**
- **Internal process focus rather than external customer focus**
- **Focus on successes of the past rather than the challenges of the future**
- **Unwillingness to change in the absence of a burning platform**
- **Politics — efforts to sustain the status quo to support entrenched interests**
- **Rewarding crisis management rather than crisis prevention**
- **Hierarchy — over-management and review of new ideas**
- **Under-funding of new ideas in the name of sustaining current efforts**
- **Reluctance to kill initiatives that are not succeeding, but have been funded and staffed**
- **Fear that criticizing current practices and commitments is a high-risk activity**
- **Workforce workloads (i.e. too much to do, not enough time)**
- **Risk aversion (i.e. punishment for "failure")**
- **Micromanagement**
- **Inelegant systems and processes**
- **Addiction to left-brained, analytical thinking ("data is God")**
- **Absence of user-friendly idea management processes**
- **Unwillingness to acknowledge and learn from past "failures"**
- **Inadequate understanding of customers**
- **Innovation not part of the performance review process**
- **Lack of skillful brainstorm facilitation**
- **Lack of "spec time" to develop new ideas and opportunities**
- **Inadequate "innovation coaching"**
- **No creative thinking training**
- **No reward and recognition programs**
- **"Innovation" relegated to R&D**





## A New Era in Co-Creative Alliances

- **What is the “Architecture of Co-Creation?”**

- Principles
- Policies
- Processes
- Practices
- Programs
- Protocols

*Synergy*

- **Unleashes the Imbedded Creative Talents in people and organizations:**

- Think Differently
- Seeing New Possibilities.

- **Must Address:**

- Strategies for Success
- Leadership & Management of Innovation
- Legal Frameworks to Induce Co-Creation
- Organizational Structures for Program Design & Management, Innovation Teams, Fast Time Innovation
- Critical Process Metrics that both *Drive & Benchmark* Innovation
- Human Resource Selection Criteria for Teams, Training, & Toolkits for Practical Implementation
- Metrics & Rewards to be effective & sustainable

- **Must be:**

- Replicable
- Trainable



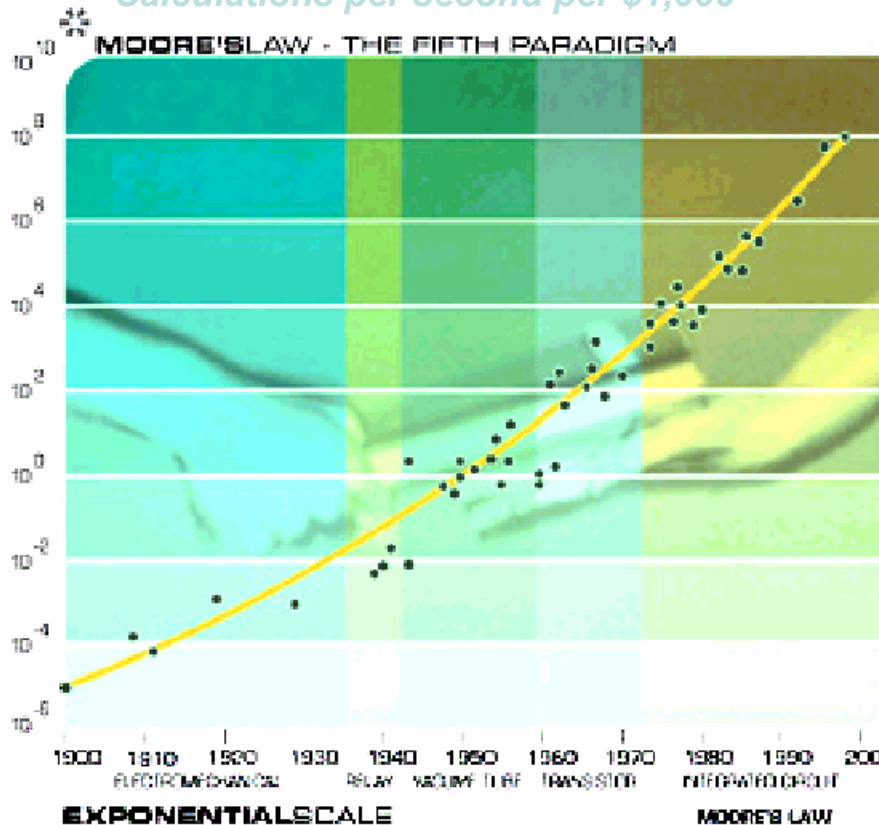


# Engines of Innovation

## Computers have Accelerated Everything

### Computing Power

Calculations per second per \$1,000

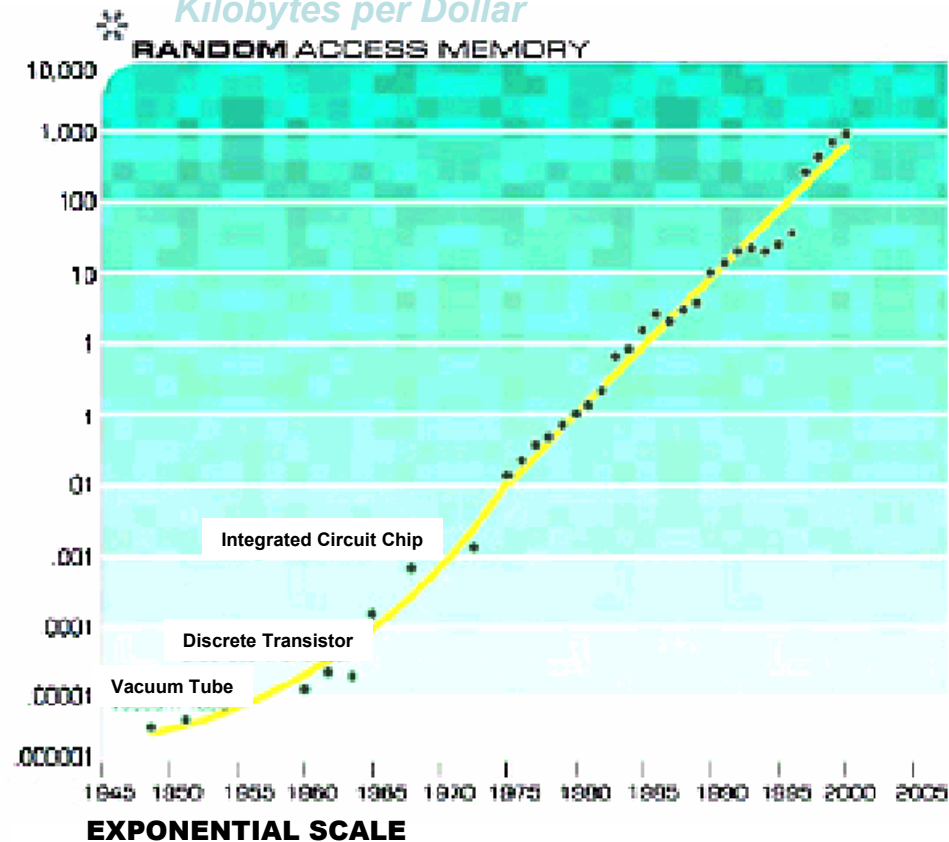


32 doublings of performance since computers were invented during WWII.

Source: Raymond Kurzweil  
*The Singularity is Near*

### Random Access Memory

Kilobytes per Dollar



Doubling Time: 1945-1975: 20 months  
Doubling Time: 1975-2000: 18 months





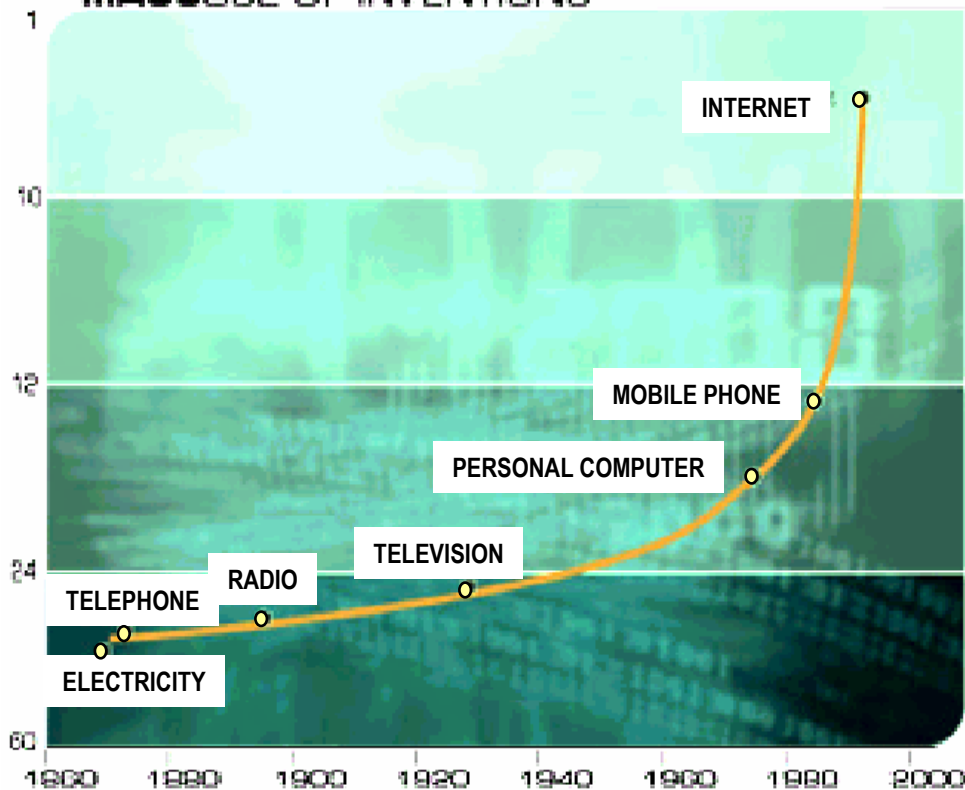
# Engines of Innovation

## Everything is Getting Faster & Smaller

### Invention Size

Diameter in Millimeters

\* MASSIVE OF INVENTIONS



INVERTED SCALE

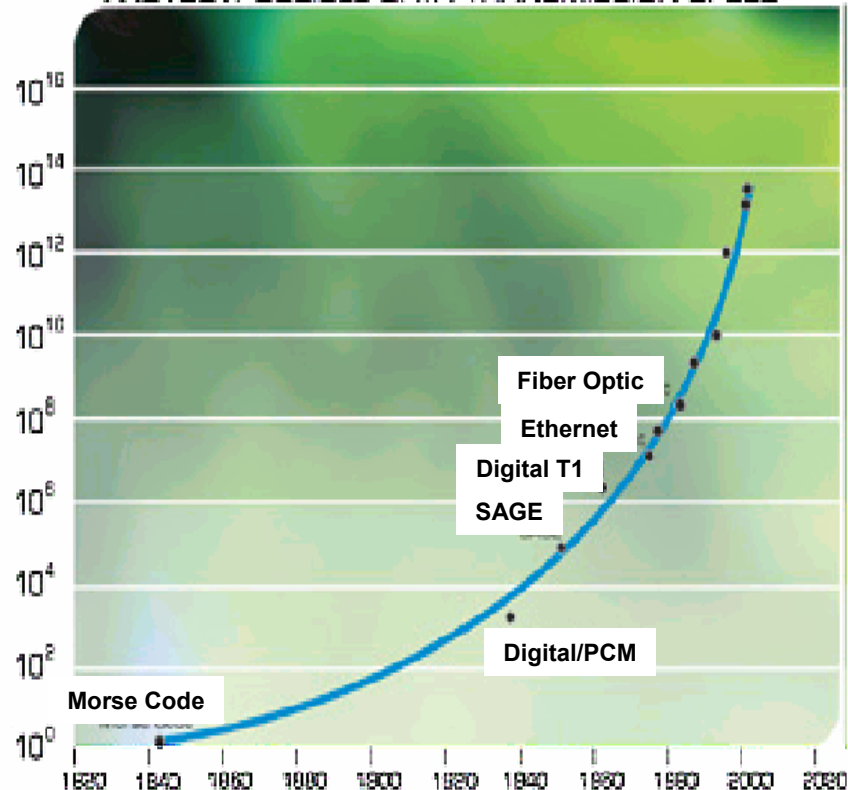
Doubling Time: 12 months

Source: Raymond Kurzweil  
*The Singularity is Near*

### Data Transmission Speed

Bits per Second

\* FASTEST POSSIBLE DATA TRANSMISSION SPEED



EXPONENTIAL SCALE

Doubling Time: 1940-1980: 36 months  
Doubling Time: 1980-2000: 12 months



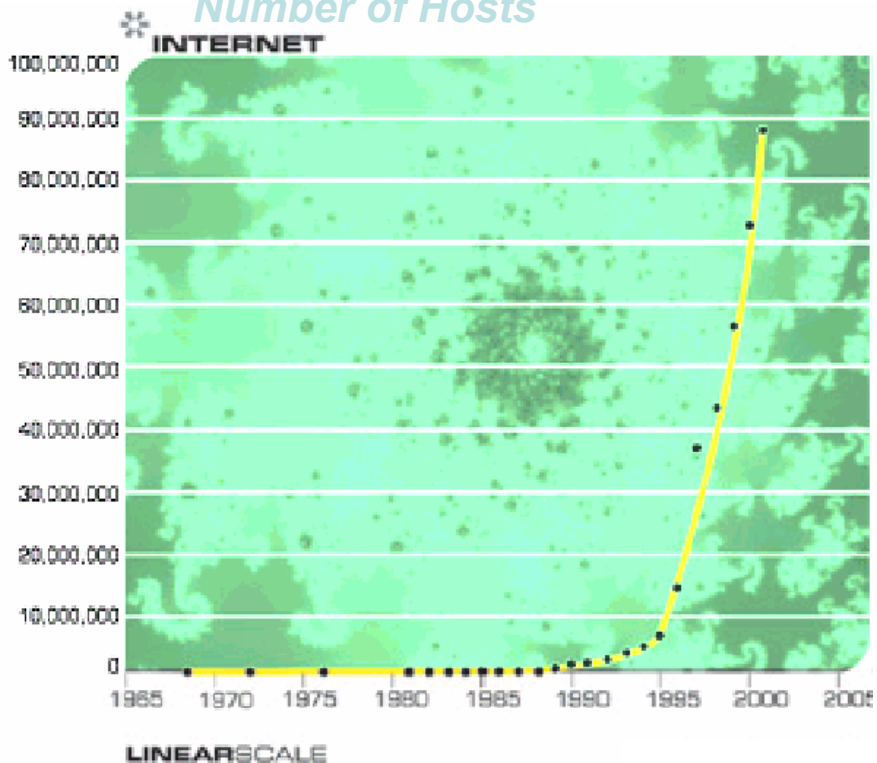
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# Engines of Innovation

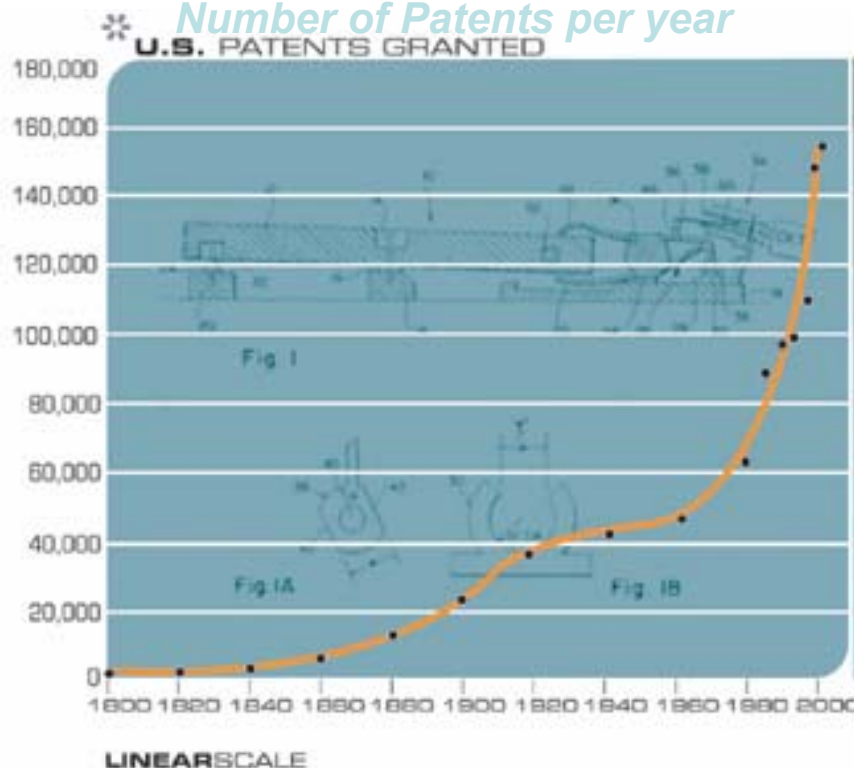
## Growth of Information & Invention

Internet/Information  
Number of Hosts



*Doubling Time: 12 months*

Invention  
Number of Patents per year



Source: Raymond Kurzweil  
*The Singularity is Near*



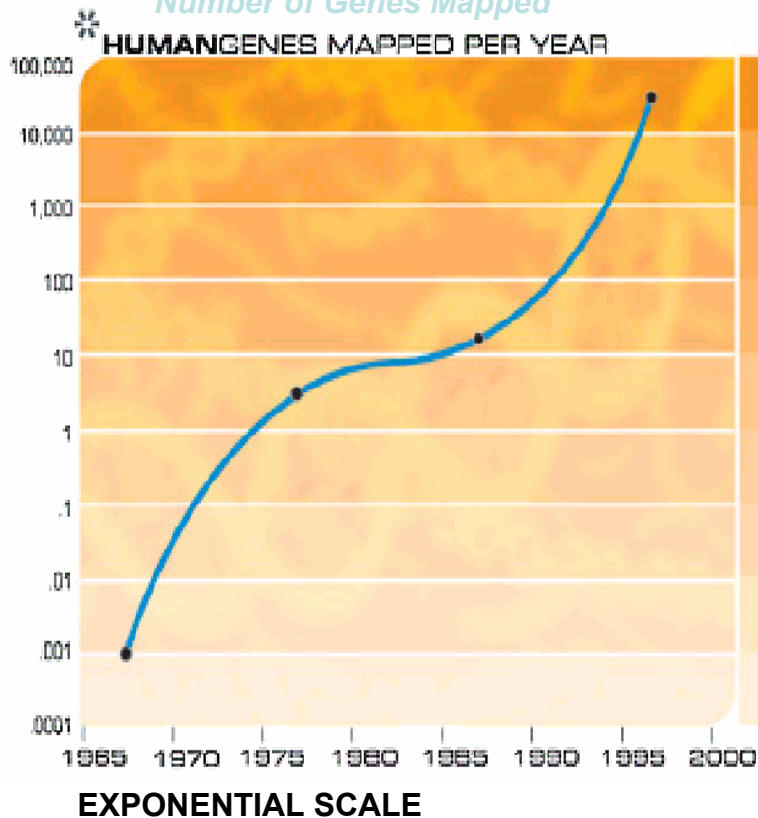


# Engines of Innovation

## The Human World Will be Changed in Massive Ways

### Bioinformatics

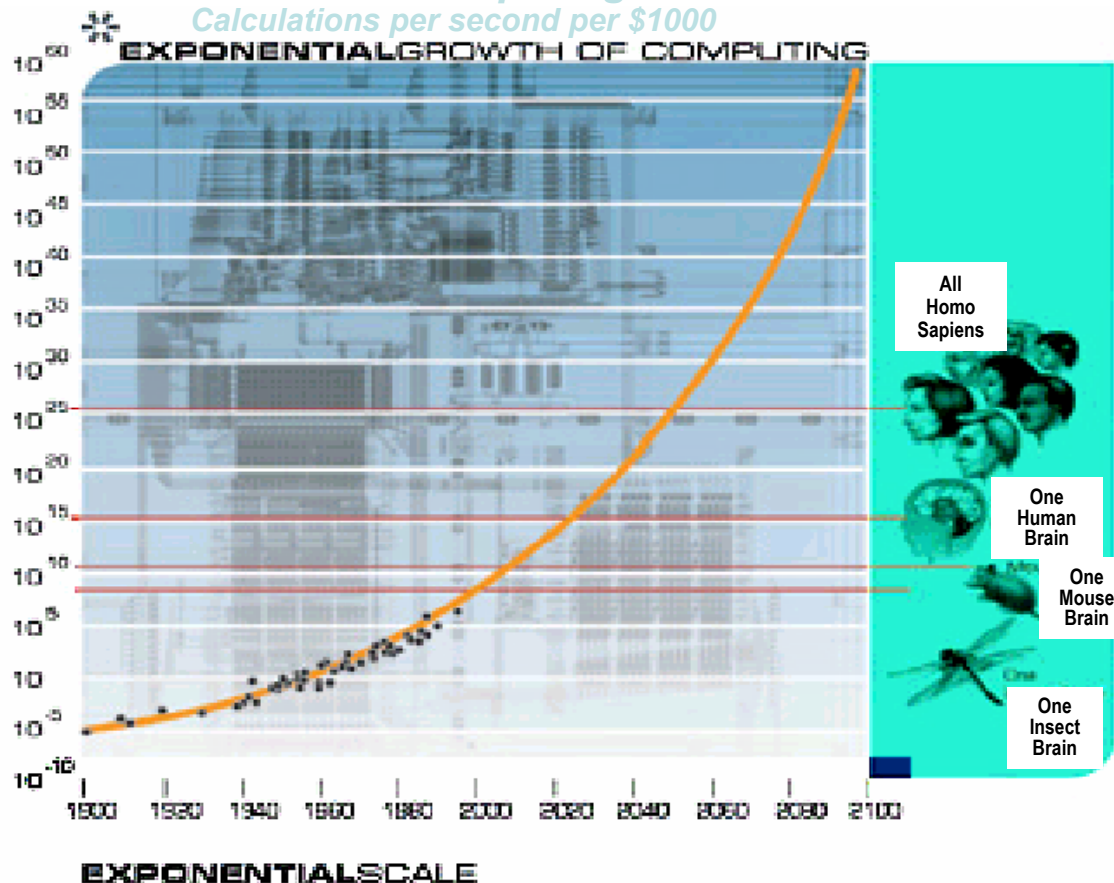
Number of Genes Mapped



Doubling Time: 18 months

### Growth of Computing

Calculations per second per \$1000



Source: Raymond Kurzweil  
*The Singularity is Near*



**THE WARREN COMPANY**  
Copyright 2005





# Engines of Innovation

## Alliance Innovation Leverage Points

**S**trategic Focus  
**L**eadership & Relations  
**L**egal Framework  
**O**rganization Structure  
**P**erformance Processes  
**E**conoMetrics

- *Strategic Focus*
  - Opportunity Seeking for Bold New Futures
  - Noble Purpose, Shared/Aligned Vision, Clear Joint Value Proposition
  - Focus on the Customer Voice of Customer & Competitive Advantage
  - Entire Value Chain Impact
  - Value Migration
  - Strategic Innovation Portfolio Management System
- *Leadership & Relationships*
  - Senior Level Commitment
  - Champions & Integrators
  - Clear Principles of Governance
  - Rules of Engagement
  - Managing Relationships
  - Cultural Respect for Differences
  - Trust – both Individual & Institutional
- *Legal Framework*
  - Supportive Win/Win Framework & Negotiations
  - Shared Risk & Rewards
  - Co-Generative Intellectual Property Agreements & Practices
  - Litigation Avoidance Mechanisms
- *Organizational Structure*
  - Innovation Organization
  - CEO Summits
  - Governance Structure
  - Steering Committee
  - Alliance Managers
  - Project Teams
  - Integration Functions
  - Principles of Cooperation
- *Performance Processes*
  - Innovation Operations Planning
  - Measurable Objectives, Timing & Responsiveness
  - Commitment to Best Practices
  - Breakdown Analysis
  - Problem Solving Mechanisms
  - Rapid Settlement of competition for Resources
  - Willingness to prevent stalemate
  - Interface Management
  - Virtual Team Capabilities
  - Training of Innovation Teams
- *Econometrics*
  - Shared Metrics
  - Similar/Aligned Rewards
  - Incentives for External Innovation





# ***Engines of Innovation***

## **Leadership and Relationships** **Innovation Champion Profile**



- Passionate Crusader
- Entrepreneurial, Risk Taker
- Vision of the Future
- Value Creator
- Demonstrated Leadership
- Can Do Attitude
- Results Oriented
- Credibility & Knowledge
- Charisma (spirit)
- Strong Values – Ability to Build Trust
- Lead the Charge Coordinating Business Units
- Influence — upward & outward & downward
- Professional Irritants
- Live in a Perpetual State of Enlightened Dissatisfaction
- Always trying to change things
- Seldom Rewarded for their work because much is “invisible”
- Need “Air Cover,” not just support
- Fight for the Other Team’s Winning
- Vulnerable because they work from Dreams and Beliefs, not Facts and Evidence

***Economics don't Create  
the Future,  
Dreams do***





# ***Engines of Innovation***

## **Organizational Structure**

Codify Mutual Rules of Engagement

- ***Contract of Expectations***
- ***Principles of Engagement***
- ***Actions in Event of Breakdowns***
- ***Management of Ambiguity/Uncertainty***
- ***Communications Protocols***
- ***Team Linkages & Empowerment***
- ***Accountability & Support***
- ***Tools & Processes***





# *Engines of Innovation*

## Leadership and Relationships

### Build Trust

**Values**

- ◆ Honor
- ◆ Openness
- ◆ Alignment of Priorities
- ◆ Respect of Differences

**Commitment**

- ◆ Dedication
- ◆ Competency
- ◆ Dependability
- ◆ Communications

**TRUST**

**Integrity**

- ◆ Congruity
- ◆ Certainty
- ◆ Predictability
- ◆ Honesty
- ◆ Walk the Talk

**Mutuality**

- ◆ Win-Win
- ◆ Reciprocity
- ◆ Shared Risk-Reward
- ◆ Fairness & Flexibility
- ◆ Supportive & Reinforcing  
Legal Agreement





# *Engines of Innovation*

## Performance Processes

- Joint Innovation Operations Action Planning
  - Joint Planning Sessions
  - Strategic & Operational Goals
  - Measurable Objectives
  - Clear Roles & Responsibilities
  - Timing & Responsiveness
  - Effective Resource Allocation
  - Operations Planning
  - Attention to Details
  - Short Term “Wins”
- High Performance Innovation Teams
  - Commitment to Best Practices
  - High Quality Personnel
  - Dedicated Alliance Management
  - Rules of Engagement
  - Communications Protocols
  - Reporting Systems
  - Training
- Breakdown & Breakthrough
  - Breakdown Analysis
  - Turning Breakdowns into Breakthroughs
- Cultural Integration
  - Cultural Assessment
  - Cultural Integration
  - Synergy of Compatible Differences
  - Culture of Collaboration
  - Use of Integrators & Liaisons
- Speed & Innovation a Priority
  - Fast Time Processes
  - Innovation Metrics
  - Integrated Solutions, Systems, Processes
- Rapid Problem Solving Mechanisms
  - Rapid Settlement of competition for Resources
  - Willingness to prevent stalemate
- Rapid Settlement of competition for Resources
- Interface Management
- Supportive Negotiations, Legal & Intellectual Property Practices
- Pilot Projects/Programs
  - Fast Time to Failure
  - Fast Time to Market
  - Risk Profiling





## **Performance Processes**

### **Curse of Differences**

## **Cultural Differences**

# **are a Primary Cause of Alliance Failure**

*50-70% of Alliance Failures:*

*misapplication, misunderstanding, or misdirection of cultural differences, interpersonal relationships, miscommunications, mistrust*



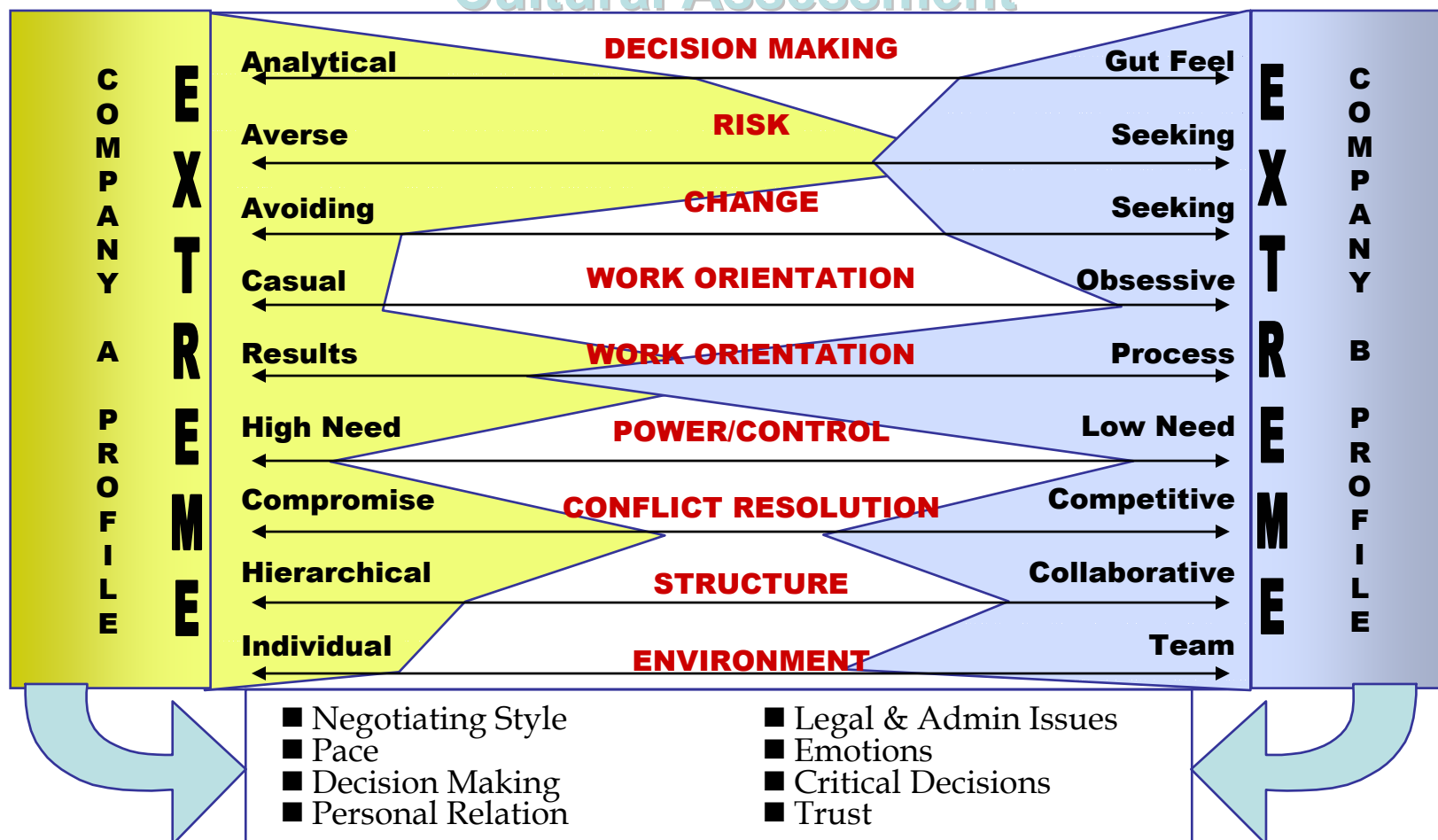


# Engines of Innovation

## Performance Processes

*Lilly*

### Cultural Assessment



*In many studies, Poor Cultural Integration is the #1 Cause for Success or Failure*





## **Performance Processes** Breakdown Analysis

- **Breakdown Analysis**

- Identify
  - Interfaces where breakdowns are likely
  - Conditions where Breakdowns are likely
  - Communications Errors that would cause Breakdowns
  - Stress Points in the System
  - Resource Stretching
  - Overloads
  - Inefficiencies
  - Insufficient or Inadequate Assumptions
  - Trust Issues

- **Contingency Planning**

- What If.....
- Priorities in an Emergency
- Fast Responses Needed
- Early Warning Systems
- Response Roles
- Trust Rebuilding







# ***Engines of Innovation***

## **Performance Processes** Coordination & Rapid Problem Solving

- **Secondment**
  - Placing one or more of your employees on the staff of the alliance partner
    - Communications
    - Relationships
    - Problem Solving
    - Proactive Intervention
- **Co-Location**
  - Placing Key Team members in same location
    - Speed of Engagement
    - Tight Integration Builds Higher Performance
- **Liaison Functions**
  - Individuals with specific “linking” responsibilities
    - Cut through Bureaucracy
    - Efficiency of Communication
    - Knowledge of Organizational Intricacies
- **Rapid Problem Solving**
  - Hot-Lines
  - Alliance Manager Communications
  - NO BLAME!!!
  - Guidelines for Decentralized Resolution
  - Advanced Breakdown Analysis





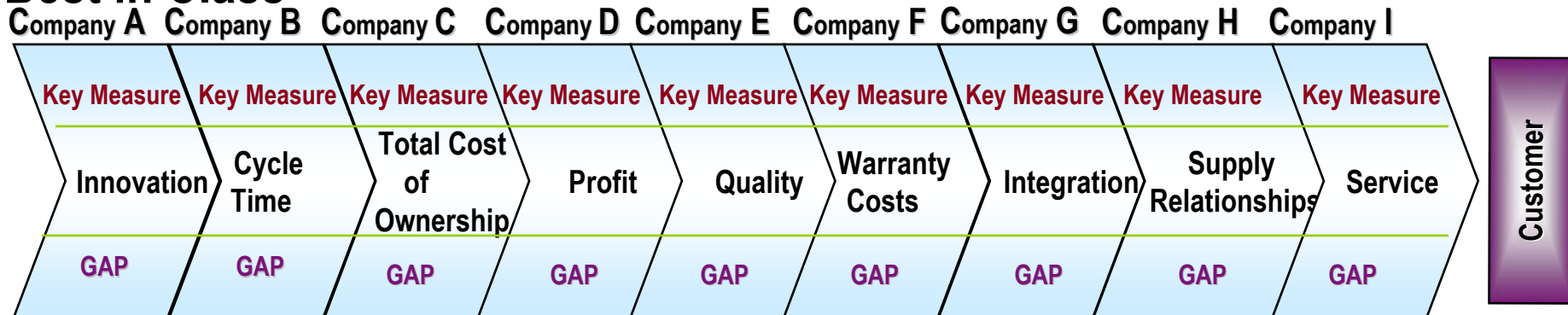
# Engines of Innovation

## Econometrics

Creating Competitive Advantage

Benchmarking Key Metrics

### Best in Class



### Your Value Chain

- **What are the Key Metrics?**
- **Are You Best In Class?**
- **How Far Behind Are You?**
- **What Does it Cost to be Less than Best?**
- **Are you using Total Cost of Ownership?**
- **Do you have Multiple Channels to Market?**

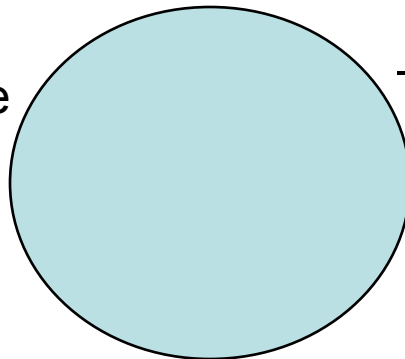




## Combating NIH and the Process Gestapo

- ***Is the Issue Job Security or Ego?***

- Job Security
  - Doubling Innovation actually means no layoffs but you will need to think about becoming a
    - Alliance Manager
    - Innovation Architect
- Ego
  - Try this exercise



- ***The Process Gestapo***

- Process Rigidity
- All processes are meant to be improved upon.
- Being a “Best Process” doesn’t mean it is the ultimate process, it’s just the process that is best at that moment
- Beware of Staff that serves itself, not serving the line functions.





*“I did not carve the Pietà.*

*It was already in the  
marble.*

*I just chipped the excess  
stone away.”*

**-- Michelangelo**