

Business Innovation in the 21st Century



By: Praveen Gupta, Consultant and Author

Email: praveen@accelper.com

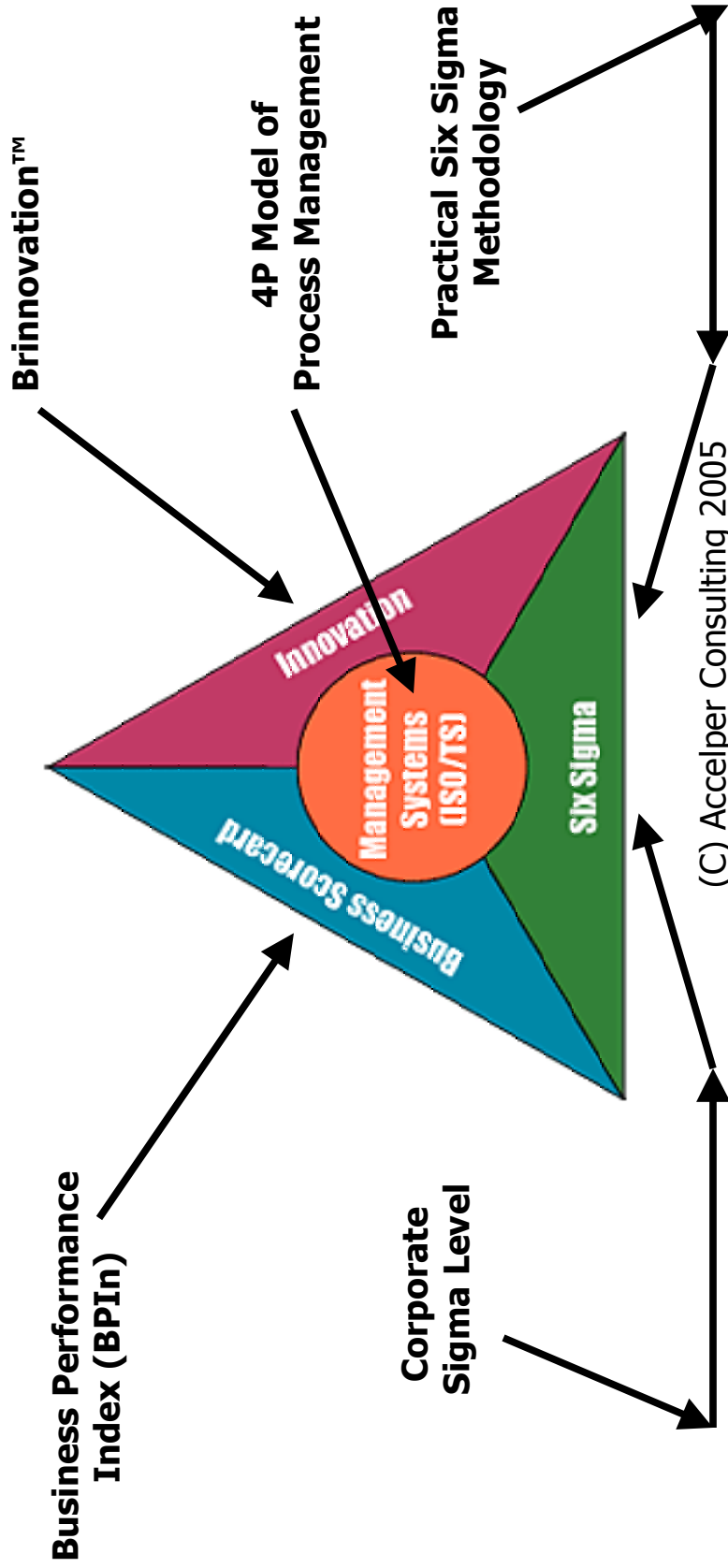
www.accelper.com

Tel: (847) 884-1900



About Accelper

- Accelper Consulting is a management consulting firm focusing on corporate performance improvement utilizing its integrated performance management system consisting of the following:





Today's Objectives



- Review the new innovation model for accelerating innovation.
- Institutionalizing innovation with a standardized and robust process.
- Learn a new way of looking at the innovation process, and think of becoming a perpetual innovator in everything you do.



Business Innovation Issues

- **Compete on cost-basis, not on value**
- No strategic plan for innovation
- Focus on a few strategic products too long
- **Lack of a standard innovation process**
- No specific funding and resource commitment
- Culture of lack of trust, risk averse, R&D driven, lack of accountability, no thinking time for ideation, no rewards and incentives for innovation
- Missing rapid commercialization



The 21st Century of Innovation

Key Resources	20 th Century	21 st Century
Material	Raw material	Information
Tools	Machines and tools	Brain (to be understood)
Methods	Repeatable Processes for well understood machines	Repeatable process to be developed
People	Workers for physical effort	Workers with thinking effort
Environment	Comfortable for producing goods	Learning and creative
Expectation	High volume reproducible products	High volume customized solutions
Measurements	Productivity and Performance	Performance and productivity



Business Objectives

1. Achieve business growth through innovation
2. Learn a reliable and accurate framework of innovation consisting of the following:
 1. Building block
 2. Theory
 3. Methodology
 4. Process
 5. Culture
 6. Measurements



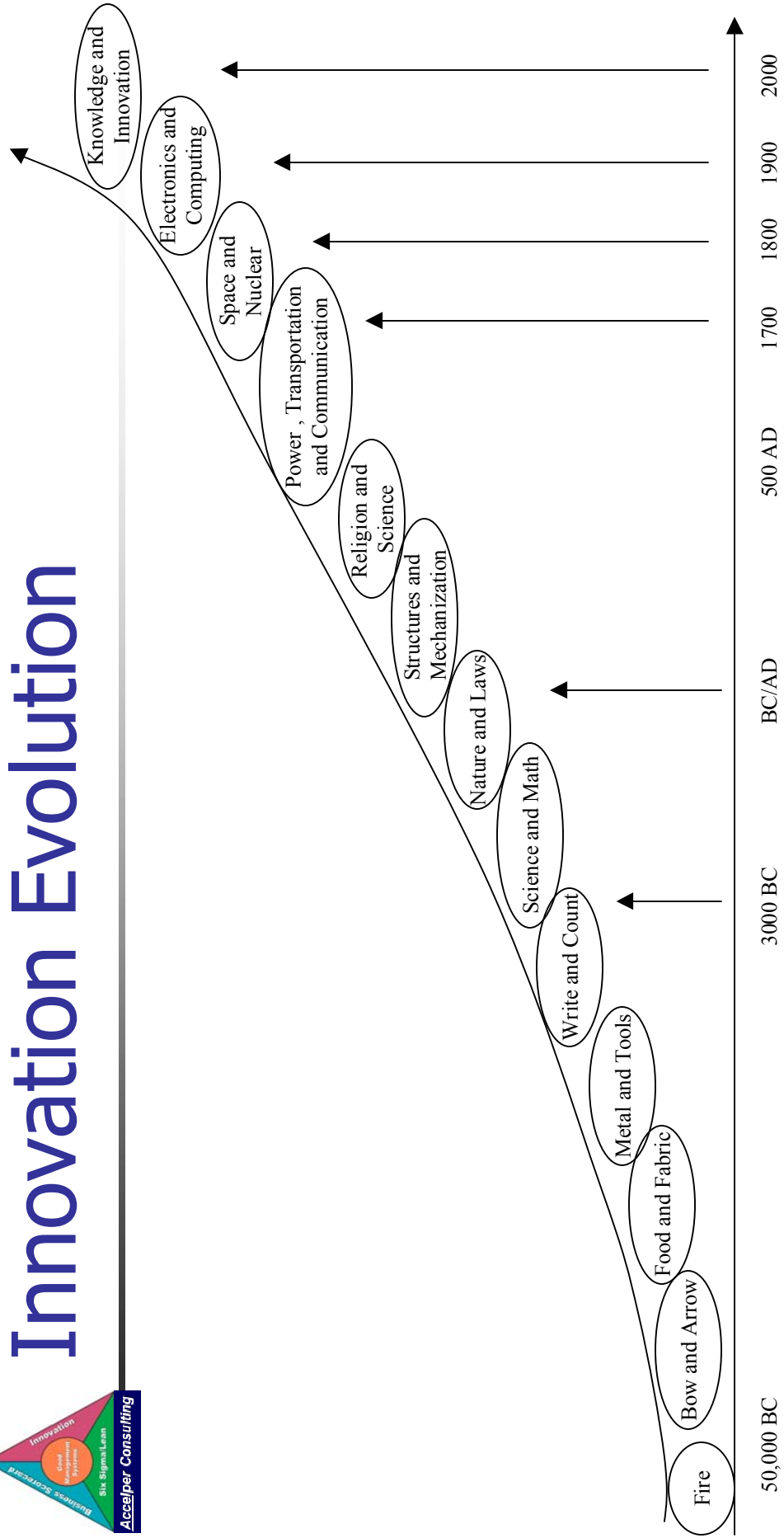
Brinnovation™ (Breakthrough Innovation)

- **Intent** - Must create a process that can make the innovation a repeatable activity, which is a prerequisite to standardize or institutionalize innovation.
- **Definition** - A new paradigm to institutionalize innovation where the basic building block of innovation is an individual in a networked environment.
- **Objectives** – Must have a clear set of measurements, tools, process, methodology, and theory

The innovation process must be a universally applicable, natural, and empowering activity.



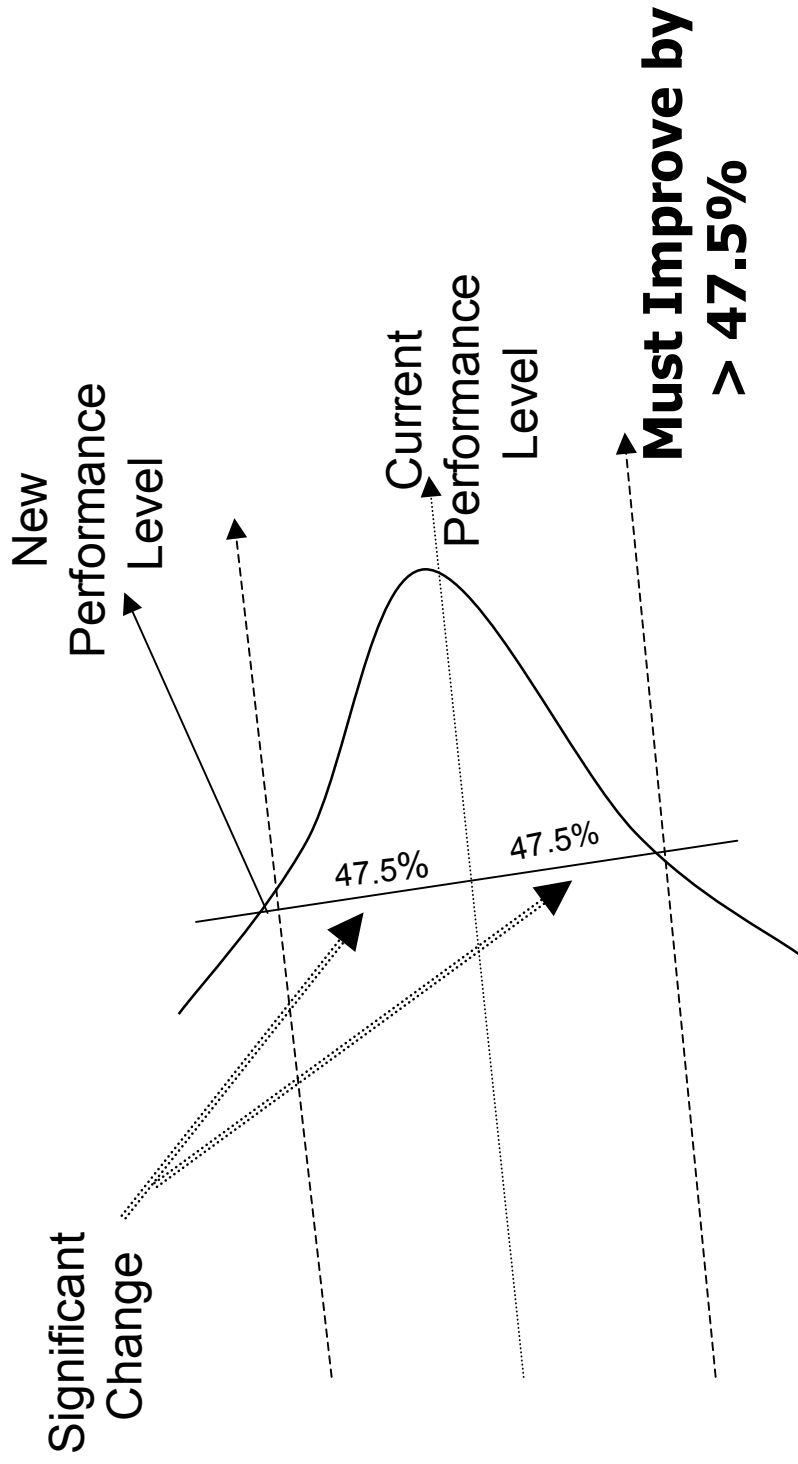
Innovation Evolution



Timeline of Innovation
(Not Plotted to Scale)
(C) Accelper Consulting 2005



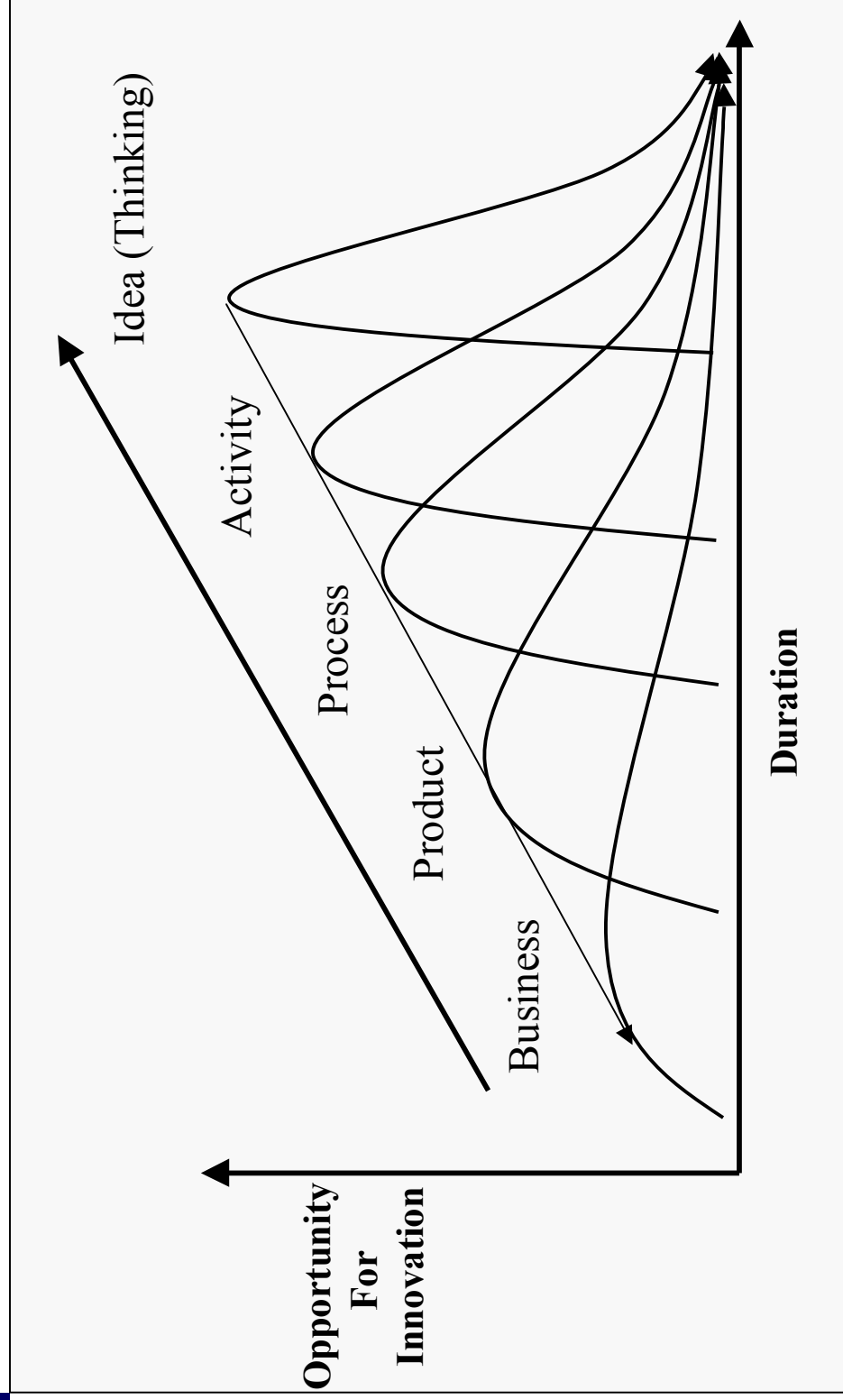
Rule of Breakthrough Innovation



Rule of 2: Double or half the performance to see the disruption.



Dynamics of Innovation



Theory of Innovation



Einsteinian Theory of Innovation (GETI):

$$\text{Innovation} = \text{Effort} \times (\text{Speed of Thought})^2$$

Where speed of thought is a function Of Knowledge, Play and Imagination.



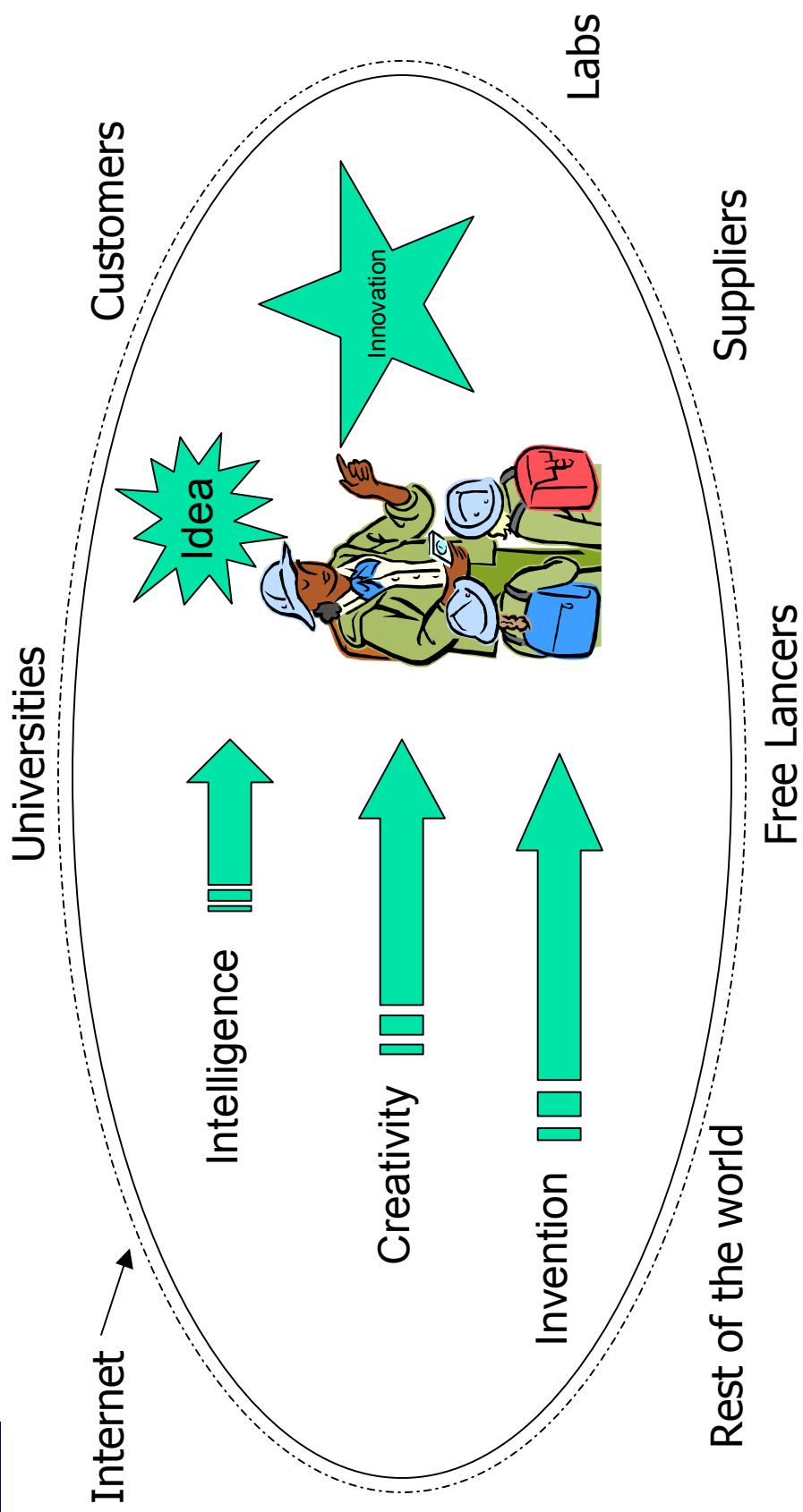


Innovation in Brain

Elements of Innovation	Hem. Side	Key Brain Elements ...Accelerators
Gathering information	L	Somatosory sensors, Thalamus, Hypothalamus Receives and integrates sensory inputs, and relays to cerebral cortex, ... Energy and comfort
Learning, Comprehension	R	Cerebral Cortex, Amygdala, Hippocampus Analyze sensory data, perform memory functions, learn new info, form thoughts and make decisions, ... Motivation and Incentives
Analysis, Questioning, Interpretation	L	Substantia Nigra, Central Gray, Red Nucleus Transmitter of information, intellectual abilities including memory, judgment, abstract thinking, ... Stamina and Time Management
Association, Induction, Deduction	R	Hippocampus involved in formation and retention of declarative, spatial, or long-term memory for facts (database),... Knowledge and Research (Speed of Thought)
Combinatorial Processing	L	Stratium responsible for "procedural or short-term memory,... Experiment and Play (Speed of Thought)
Extrapolation	R	Pontine, Deep Cerebellar causing subconscious thinking, dreaming, imagination, memory consolidation, comprehension,... Rest and Reflect
Formulation	LR	Cerebellum, Ganglia – Timing relationships, motor planning, predicting, and motor control,... Evaluate and Select

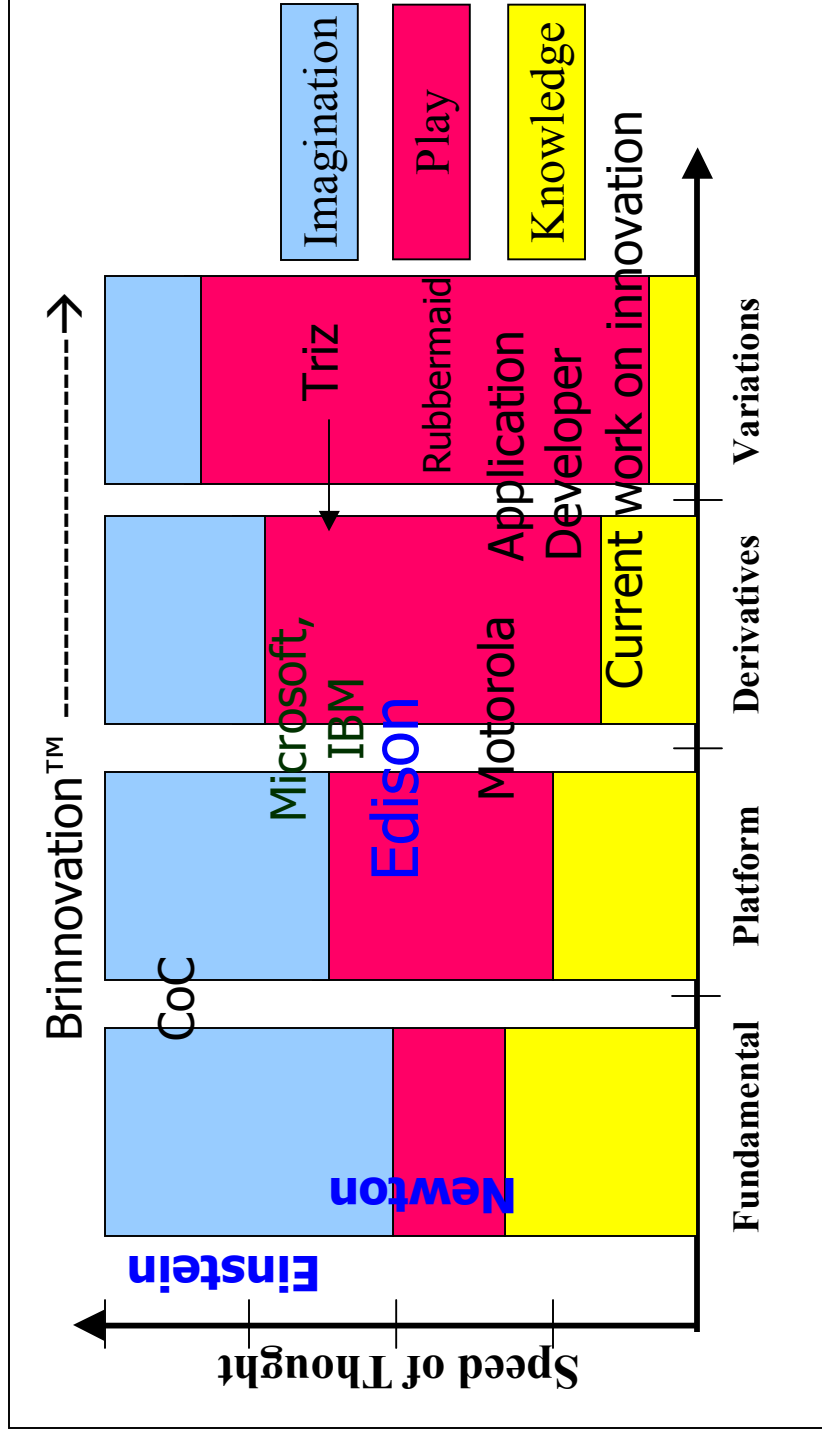


Building Block of Innovation





Types of Innovation





Process of Innovation

1. Prepare

Information/
Material

Tools

Method

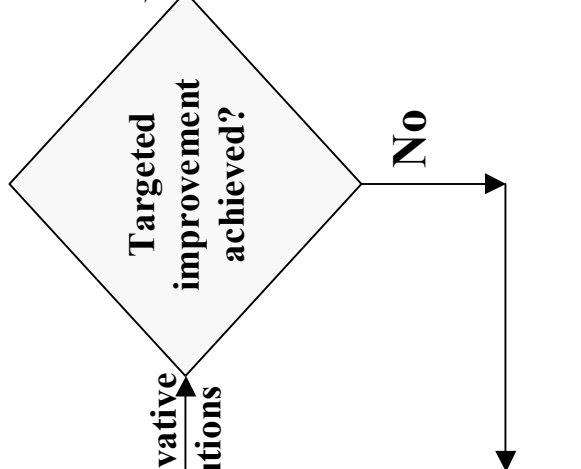
People
Skills and
Experience

3. Perfect (Target)

2. Perform (Innovate)

Innovation Process
(Learn, Experience, Play,
Generate ideas, Observe, Think,
Innovate solutions)

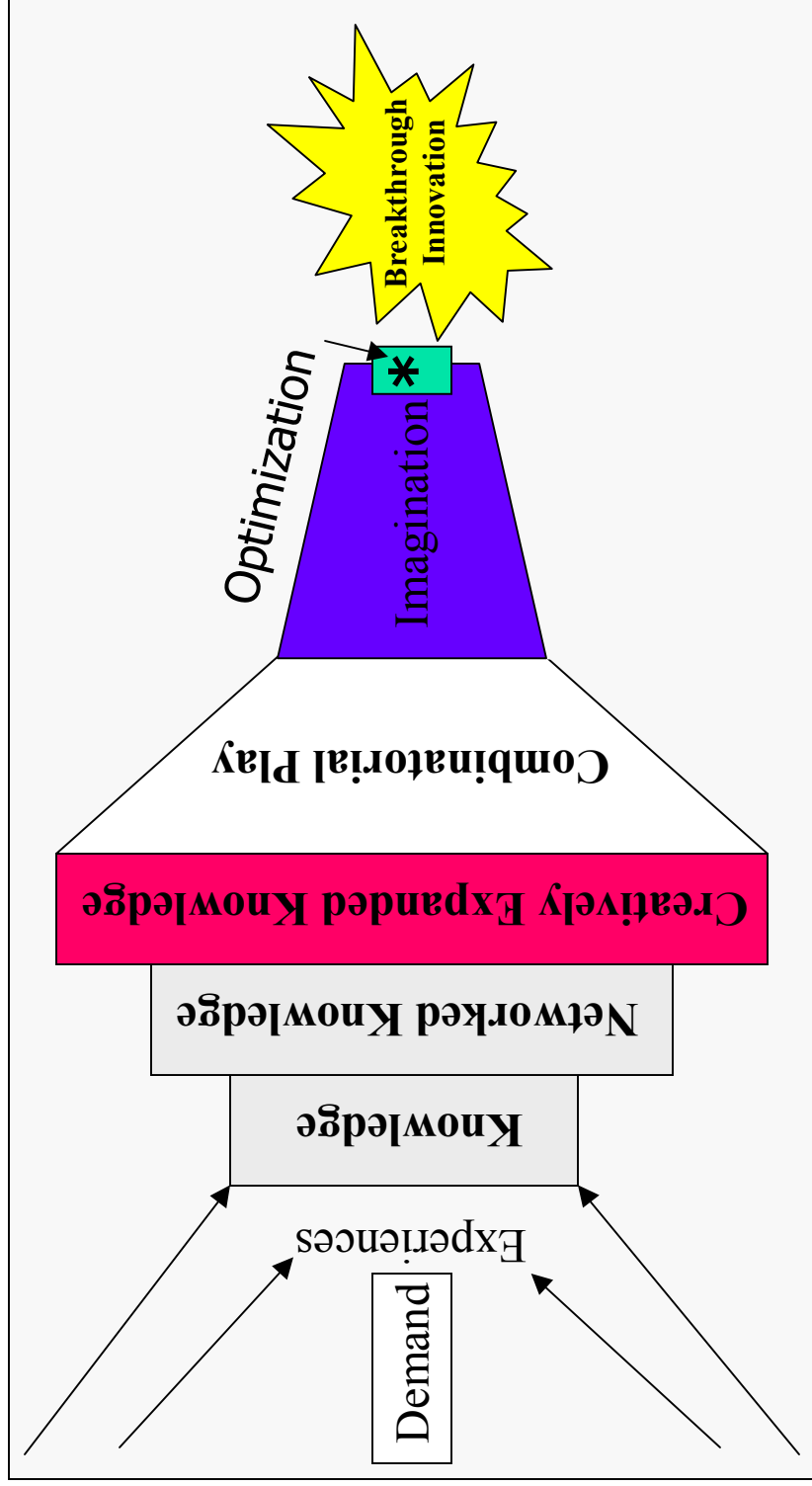
Innovative
Solutions



4. Progress



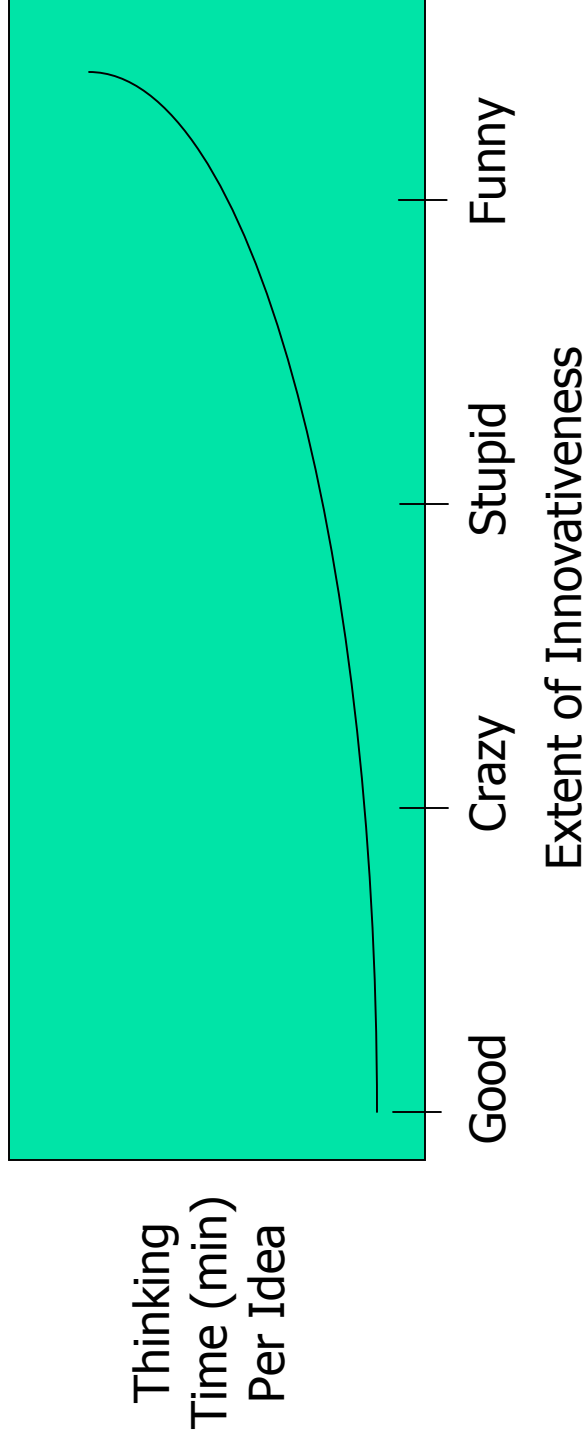
Brinnovation™ Process

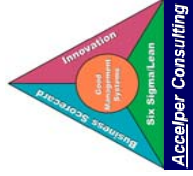




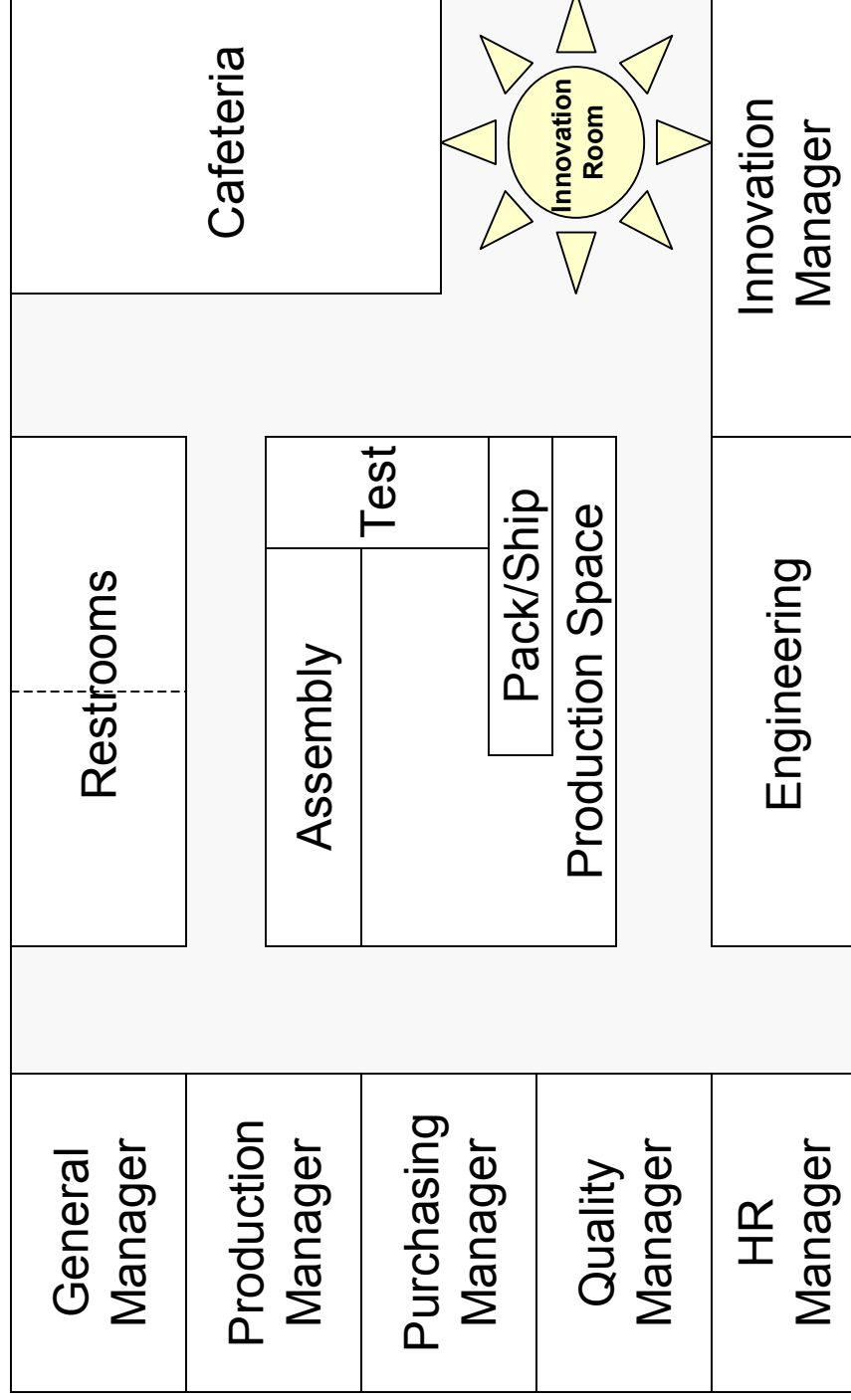
Culture of Ideas

- The most exciting phrase to hear in science - the one that heralds new discoveries - is not "Eureka!" but "*That's funny....*" (Isaac Asimov)



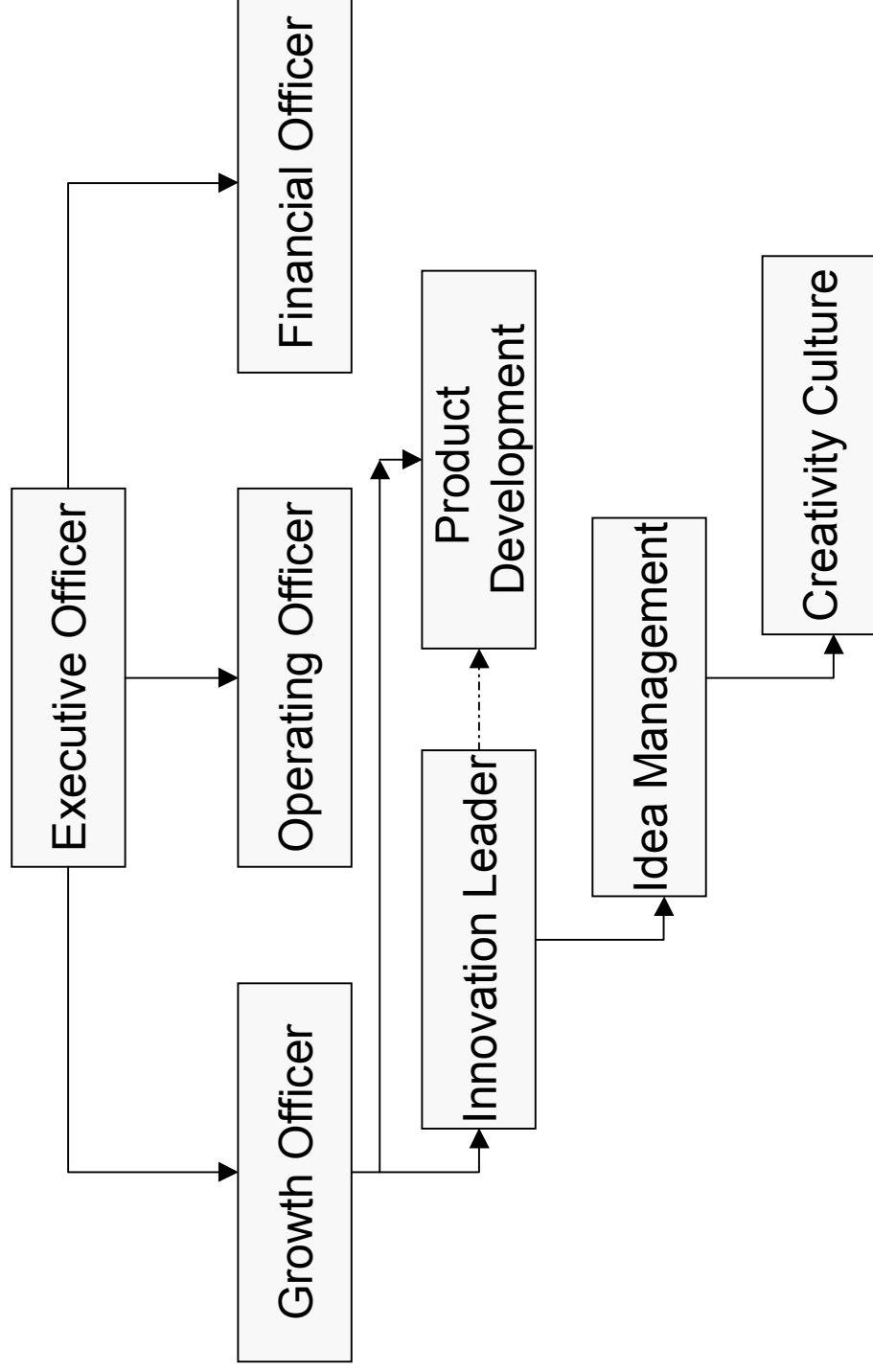


Innovation (In-Process) Room



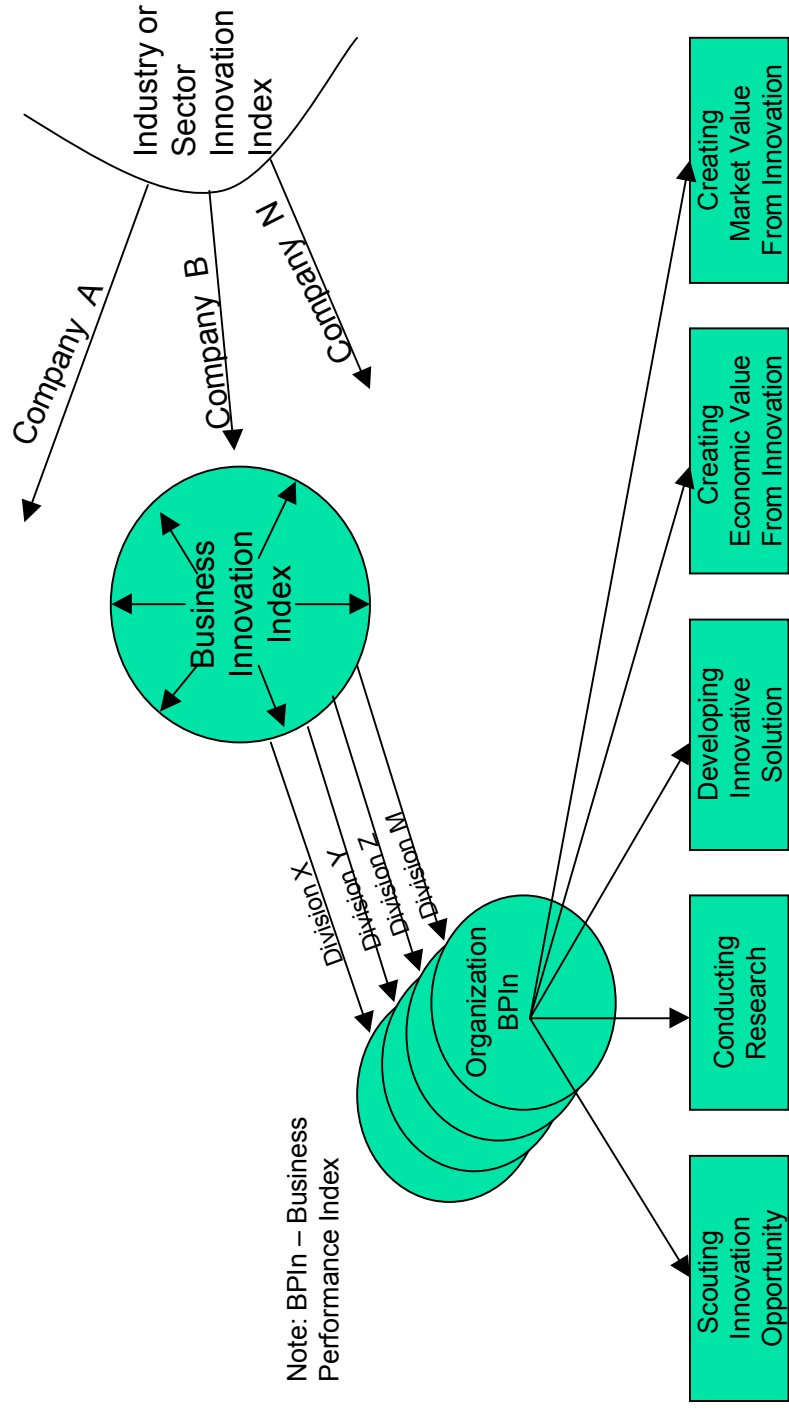


Organization for Innovation





Measures of Innovation

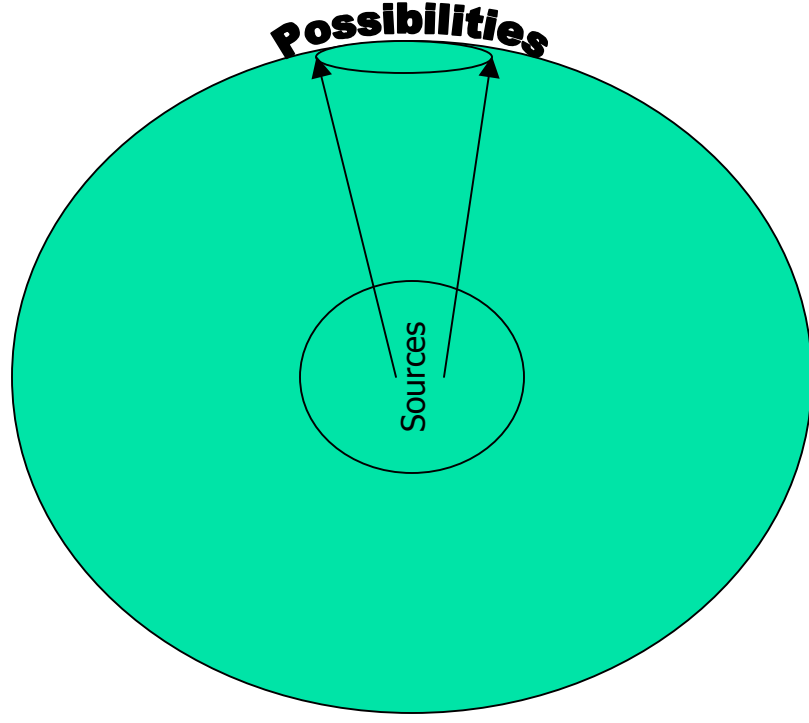




Conceptual Difference

Current – Searching for a solution
– Random Discovery

New – Innovating a solution
– Solution on Demand





Roles for Innovation

Types of Innovation	Primary Drivers	Key Aspects	Deliverables	Frequency	Time to Innovate	Ownership
Fundamental	University/ Laboratories	Science/ Knowledge	Concepts/ Revelations	Rare	Years – Months	Govt. (s)
Platform	Corporate R&D	Technology/ Large Sys.	Equipment/ Capability	Sporadic	Months – Weeks	Govt./ Business
Derivatives	In-house/ Outsourced	Application/ Small Sys.	Product/ Service	Regular	Weeks – Days	Business/ Individuals
Variations	Networks/ Individuals	Disposables/ Ideas	Packaging/ Integration	Continuous	Days – On-demand	Individuals



Recommendations

Level	Activity
Elementary Schools	National Question Campaign similar to Milk is Good, Required Mental Math course
Middle Schools	Courses/ Activities/ Clubs for Mental math, Art of Questioning, and Creative writing
High Schools	Funding for Hands-on Innovation Lab, and a Creativity Course, Competition
Colleges	Develop curriculum for the Innovation course, and the innovation project, Awards
Businesses	Funding for innovation tools, Training, and establish an Innovation Award similar to MBNQA



Brinnovation™ Examples

- Einstein used similar theory to develop his innovative solutions
- Edison used a similar methodology to obtain patent a week
- 3M, IBM, Motorola, IDEO, Eureka!, Proctor & Gamble, Lucent-like companies have used innovation rooms without a framework



Business Innovation - The Book

- Planned for publication Nov. 2006
- Book is complete
 - Includes contribution from several experts from various industries
 - Interview with Bob Galvin (Former Chairman of Motorola)
 - Foreword from Dr. Dipak Jain, Dean of Kellogg School of Management
 - Excellent reviews from IBM, MIT, ...



Innovation Consulting Services

Strategic Consulting

Diagnostics

Planning

Execution Support

Establish Brinnovation™ process

Guide development of Innoroom™

Provide Training

Ensuring Results

Establish innovation indices

Tools for accelerating innovation



Summary

- Brinnovation™ is a new paradigm of innovation based on speed of thought that enables us to understand the innovation process better for institutionalizing innovation on demand.
- Brinnovation™ consists of the Einsteinian theory, institutionalization methodology, tools such as innoroom™ and software (to be developed), innovation process, measurements, and the building block (a networked individual).