

The Change Proficiency Maturity Model:

**A Tool for Gauging Agility and
Developing Improvement Strategies**

6th Annual Agility Conference

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WITHIN FIVE YEARS

THE WORLD AS WE KNOW IT WON'T EXIST

- q **Laser Sintering of Useful Metals - Atomic Construction Next.**
- q **Heavens Paved with Internet Satellite Grid 200 Miles Up.**
- q **Virtual Reality as Cooperative Work Space.**
- q **Plugged-In Cyber People as Employees and Customers.**
- q **Proprietary Intellectual Property Values Going Negative.**
- q **Space Payloads for \$1000 Per Pound.**
- q **Genetic Engineering.**
- q **National Government Loosing Relevance and Loosing Control.**

- q **And They Just Invented an Anti-Gravity Machine in Finland.**

EMERGING BUSINESS ENVIRONMENT ^{1/2}

Technology - Fundamental Unprecedented Impact

Innovation: Faster cycles in all fields,
shorter market windows,
hastened obsolescence.

Infrastructure: Personal computing,
on-line networks, electronic commerce,
information interchange/access standards.

Competition - Globalism Increasing the Competitive Arena

New Entries: Russia, China, Mexico,
South America

Infrastructure: Trading blocks, air cargo,
global communications,
enterprise integration.

EMERGING BUSINESS ENVIRONMENT ^{2/2}

Social Culture - Defense Focus to Quality-of-Life Focus

Knowledge: Global MTV, ESPN, CNN.

Expectations: Overnight delivery, 1-Hr glasses,
10 minute oil change, instant fax.

Demands: Income, respect, environmentalism.

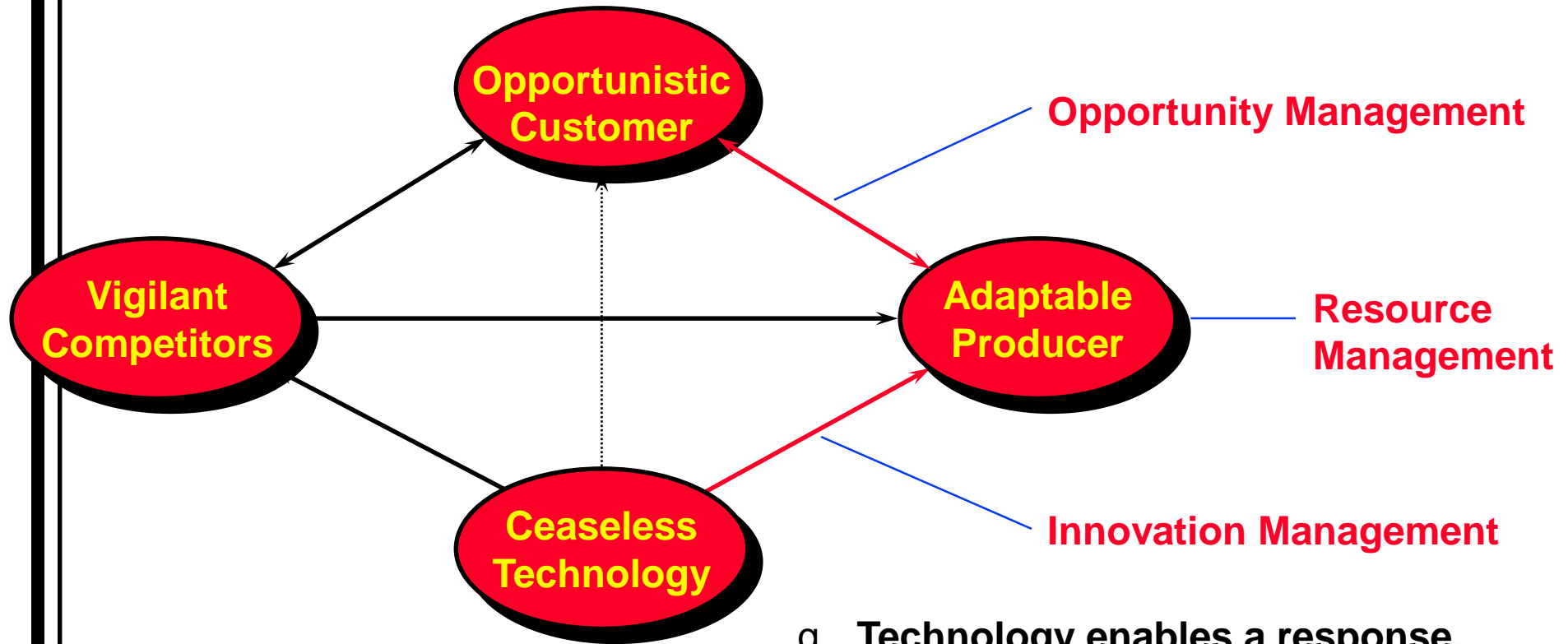
Customer - Demanding, Opportunistic and Fickle

Consumer: Mass media shapes tastes and
creates new demand quickly.

Industrial: Pressures for lower costs, higher quality,
faster response passed to suppliers.

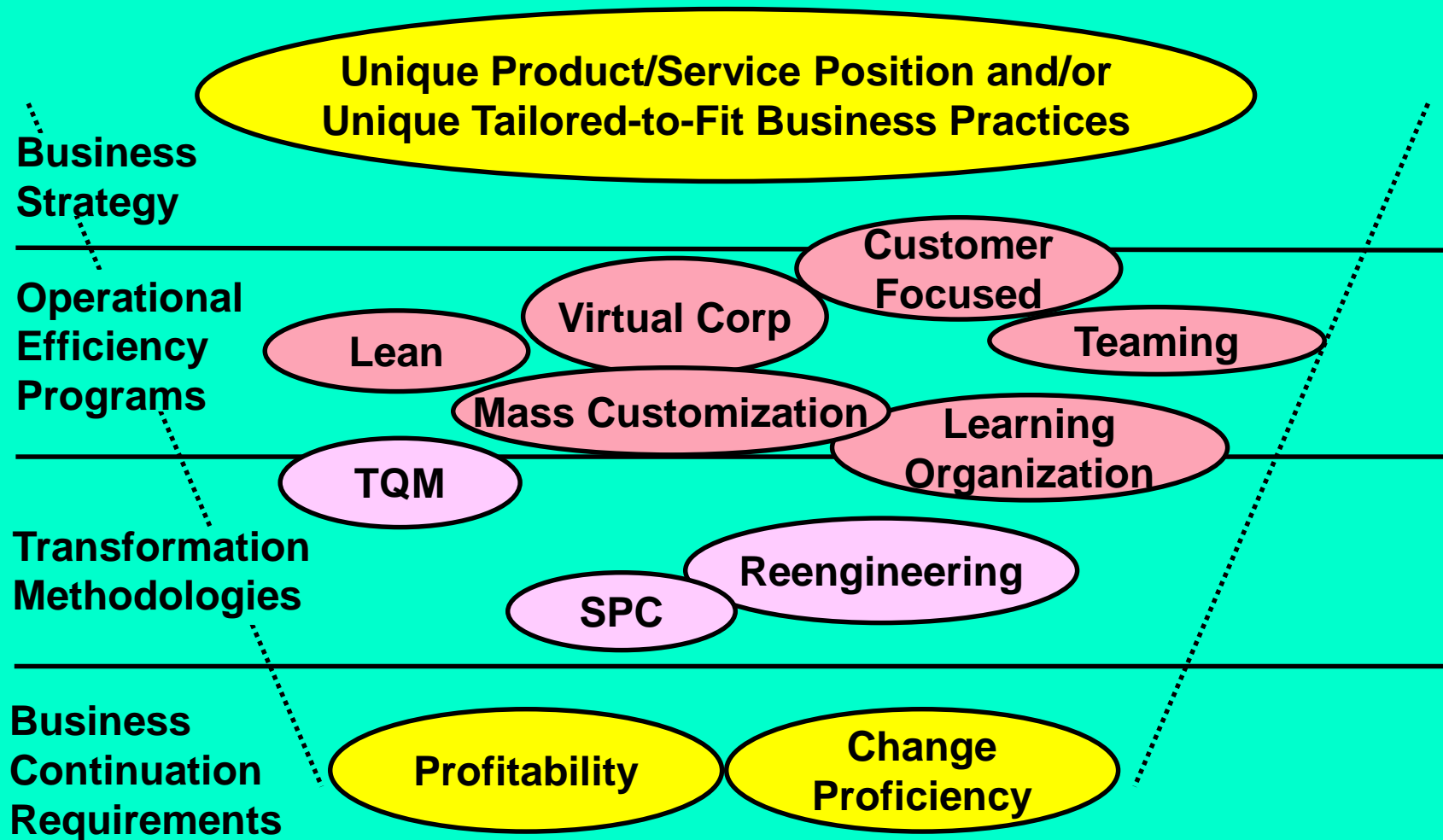
Defense: Less money, more technology,
faster deployment, more diverse threat.

IMPATIENT MARKET DRIVERS



- q Technology enables a response.
- q Customer demands a response.
- q Competitors force a response.

Change Proficiency Enables Sustainable Strategy & Tactic



It Can Also Be A Strategic or Tactical Focus

AGILE ENTERPRISE DEFINED

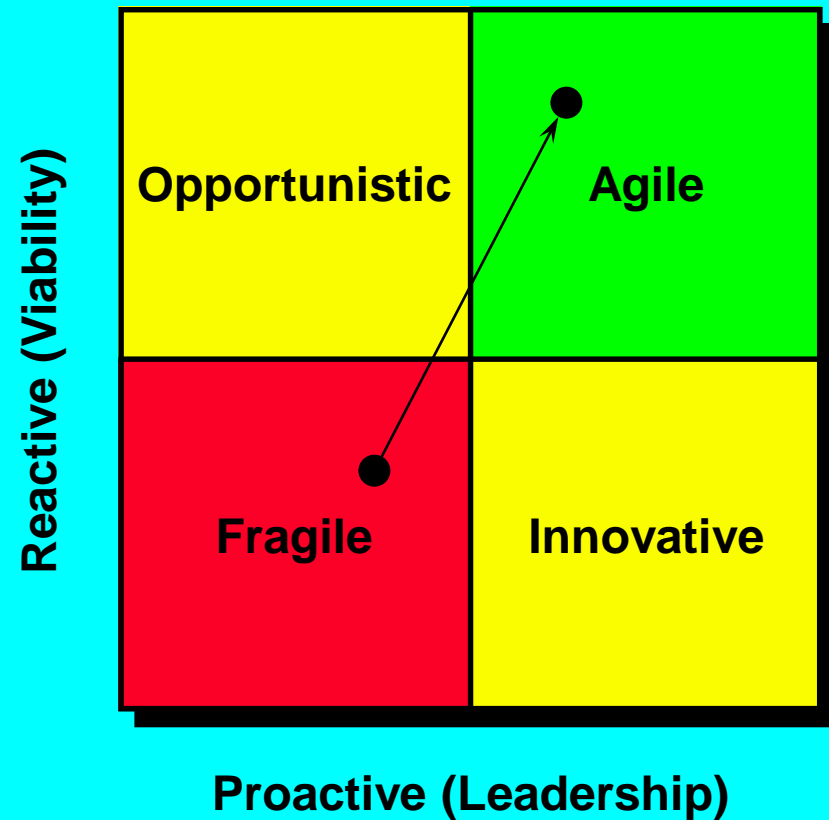
**One that exhibits competency
at dealing with change
in the important
competitive business practices
for its business sector.**

Three Key Concepts

**Change Proficiency
Critical Business Practices
Competency**

PROACTIVE & REACTIVE CHANGE PROFICIENCY

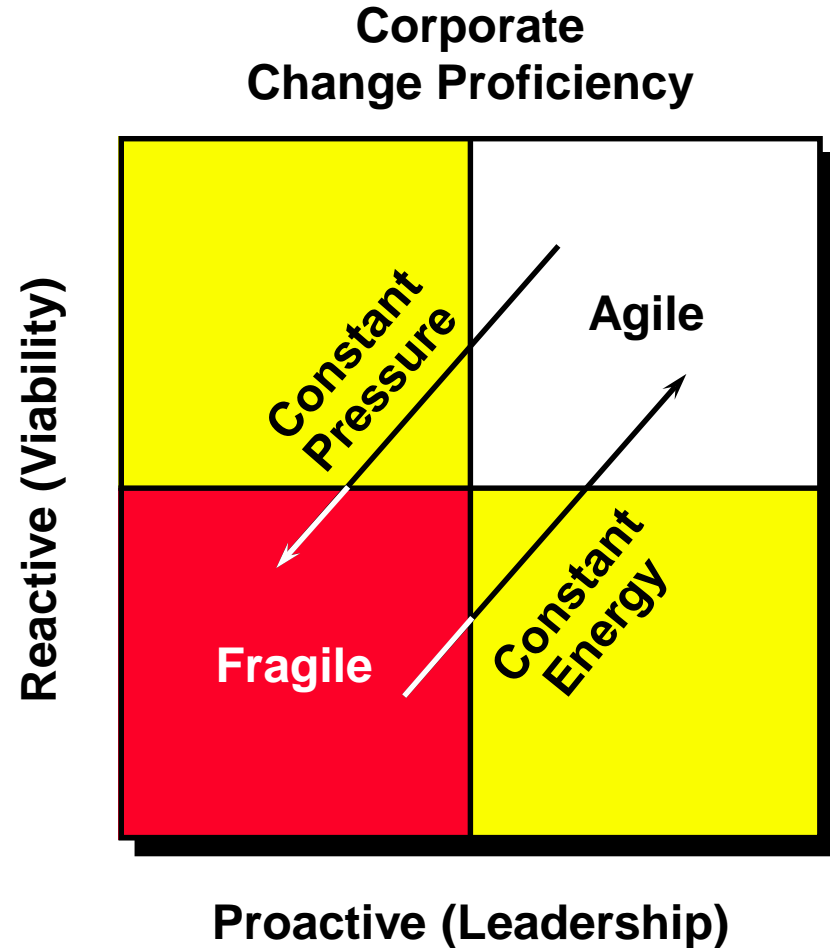
- | **Viability:** Seeks and responds to the voice of the customer, says yes to opportunity, reactive, resilient, staying power, robustness.
- | **Leadership:** Changes the rules, introduces new approaches, makes existing approaches obsolete, out-of-box thinking, disrupts the market.
- | **Requires:** Dynamic Practices that Maintain the Position Against Constant Ejection Pressure.



THINGS DON'T STAND STILL

- n Process Technology.
- n Come and Go Markets.
- n Customer/Supplier Rules.
- n Global Sourcing.
- n Competitive Issues.
- n Foreign Competition.
- n Information Technology.
- n Social Responsibilities.
- n Alternative Materials.

**There Is Knowledge and Experience
In Achievement,
But There Is No Safety !**



GENERAL CHANGE PROFICIENCY METRICS

Time of Change:

n Time to Complete.

Cost of Change:

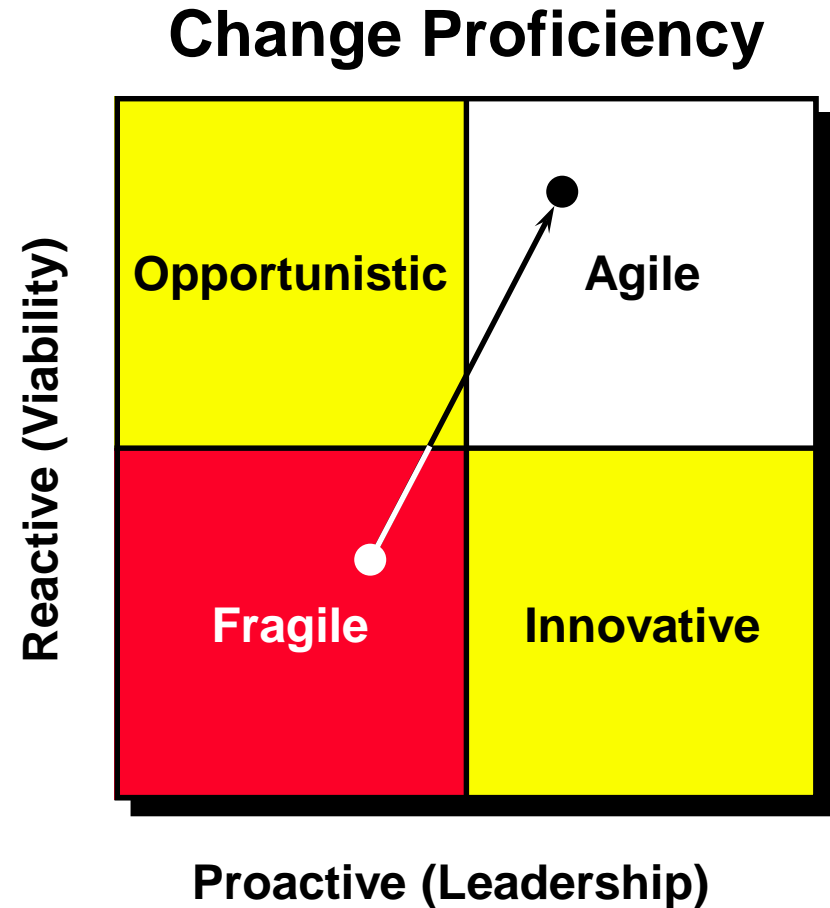
n Cost to Complete.

Robustness of Change:

n Completion Quality.

Scope of Change:

n Reactive and Proactive Breadth.



EXAMPLE

TYPE OF CHANGE

Product Realization Contract Agreement	<u>Creation:</u> Make (or eliminate) something.
Continuous Improvement Software System Upgrade	<u>Improvement:</u> Minor incremental change.
Organizational Learning Business Reengineering	<u>Migration:</u> Major fundamental change.
Skill and Tool Training New Process Installation	<u>Modification:</u> Add/subtract unique capability.
Computer Virus Cleanup Process/Equipment Failure	<u>Correction:</u> Rectify dysfunction.
Expedited Production Small-Lot Manufacturing	<u>Variation:</u> Real-time operating change.
Staff Up/Downsizing Demand/Surge Tracking	<u>Expansion:</u> Increase/decrease existing capability.
Technology Diffusion Production Changeover	<u>Reconfiguration:</u> Change resource relationships.

Simple strawman examples - for revision, completion, inspiration

Organizational Structure - Change Proficiency Issues

Change Type	Corporate Product Development Example	Plant Virtual Production Example	Special Plant-Task Example
Creation / Deletion	Form a cross functional product development team.	Develop an external resource group matched to an opportunity.	Form a cross-functional plant team to spearhead strategic initiative.
Addition / Subtraction (Capability)	Incorporate new production expertise into a team.	Find a new external resource needed for product change.	Add people with new view points and knowledge to existing team.
Augmentation (Improvement)	Beef up team representation from distributors.	Adjust risk/reward relationships among the participants.
Migration	"Short-Cycle" strategy will have new supplier qualifications.	Introduce profit-sharing working relationships.	Substantially increase the financial commitment authority of the team.
Expansion / Contraction (Capacity)	Get additional design engineers to accommodate expanded activity.	Add more external resources to handle increased product demand.	Add similarly skilled people to existing team to meet new schedule .
Reconfiguration	Change weighting among team members on design decisions.	Trade some outsource for some insource.	Rotate responsibilities within existing team.
Variation (Performance)	Other programs cause conflict for production prototyping resources.	Incorporate urgent engineering change in production.
Correction (Recovery)	Original market data driving design is no longer correct.	One of the partners is unable to perform as expected.	Replace valued team member that is required elsewhere.

Establishing Joint Project Objectives: Lockheed/Rocketdyne/TI

Supply Chain Management - Change Proficiency Issues

Change Types	Partnering (Virtual Enterprise)	Commerce (Insourcing/Outsourcing)	Supply (Defense Supplier Network)	Supply (Commercial FAR Compliant)
Creation / Deletion	x Forming partnership. x Dissolving partnership. x Forming IPD team.	x Establishing corporate strategy. x Finding suitable in/outsources. x Forming IPD team.	x Qualifying potential suppliers. x Building new-program network. x Forming IPD team.	x Attracting com'cial suppliers. x Qualifying com'cial suppliers. x Forming IPD team.
Addition / Subtraction (Capability)	o Integrating new partner needed for new capability requirement.	o Finding specific niche-capability in/outsource.	o Integrating new niche-capability supplier for product change.	o Attracting new niche-capability. supplier for product change.
Augmentation (Improvement)	x Faster formation. x Faster operating response.	x Faster interaction response.	x Faster interaction response. x Cost reduction.	o Faster operating response.
Migration	x Closer strategic integration. o More partnering occurrences.	x Closer information integration. x More outsourced design.	x Closer information integration. x Faster response. o More commercial production.	x Closer information integration. o Faster response.
Expansion / Contraction (Capacity)	o Increase/decrease magnitude of partnership activity.	o Increase/decrease quantity of in/outsource activity.	o Change delivery rate of network. o Add 2nd sources to network.	o Change delivery rate of network. o Add 2nd sources to network.
Reconfiguration	o Change partner responsibilities.	x Switch resources from internal to insource fulfillment. o Change outsource responsibilities.	o Switch between defense and commercial production. o Change supplier responsibilities.	x Switch between commercial and defense production. o Change supplier responsibilities.
Variation (Performance)	o Incorporate urgent ECO. o Key partner resources are pre- emptively diverted.	o Economic resource utilization. o Custom configured job variation.	o Incorporate urgent ECO. o Custom configured job variation.	o Incorporate urgent ECO. o Custom configured job variation.
Correction (Recovery)	x Virtual Partnering Agreement dysfunction/obsolescence. o Partner no longer viable.	o Outsource insolvency. o Insource relationship termination.	o Supplier ceases to exist.	o Supplier ceases to exist. o Qualification revoked.

AGILITY IS CHANGE PROFICIENCY IN EIGHT CHANGE DOMAINS

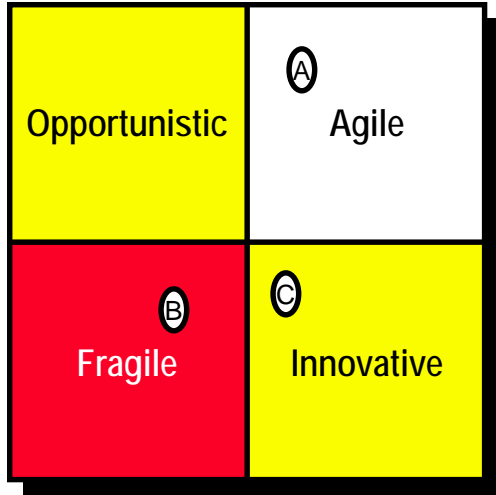
Proactive Change:

- **Creation** **Build New Capability.**
- **Improvement** **Continuous, Daily Incremental Upgrade.**
- **Migration** **Transformation of Basic Concepts.**
- **Modification** **Add/Delete Unique Capability.**

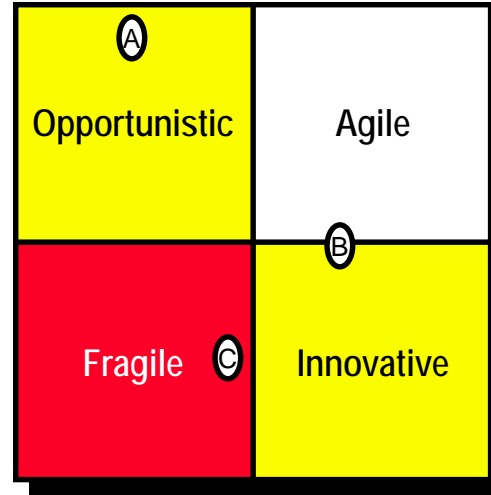
Reactive Change:

- **Correction** **Failure Corrections and Alternatives.**
- **Variation** **Real-Time Operating Change.**
- **Expansion** **Increase/Decrease Existing Capability.**
- **Reconfiguration** **Change Relationships Among Modules.**

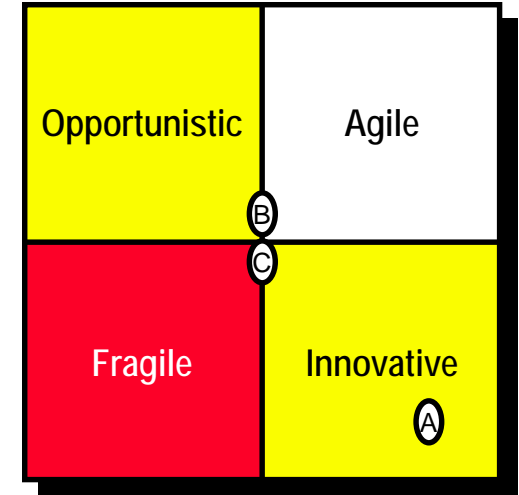
Employee Relationships



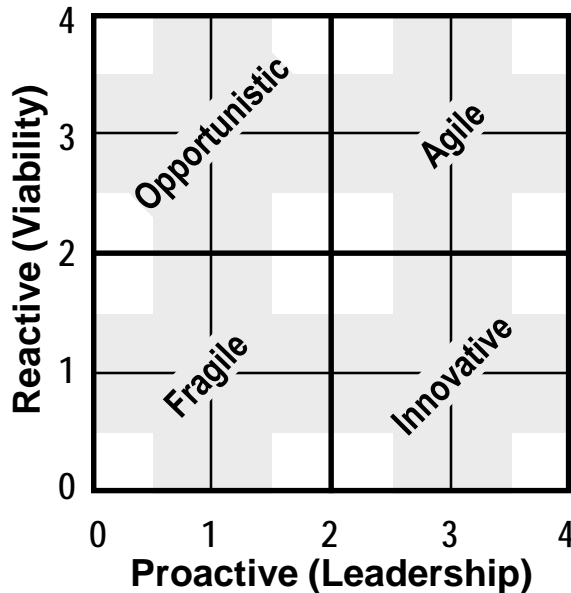
Procedure Innovation



Knowledge Mobilization



Assessment and Competitive Evaluation



Change Proficiency Maturity Framework

Comparing Companies A, B, C.

Stages	Metric Focus	Working Knowledge	Capabilities	
			Reactive	Proactive
0 Accidental	Pass/Fail	Examples	Lucky	Lucky
1 Repeatable	Time	Concepts	Safe	Occasional
2 Defined	Cost	Metrics	Confident	Competitive
3 Managed	Robust	Rules	Sure	Aggressive
4 Mastered	Scope	Principles	Automatic	Formidable

MATURING CHANGE PROFICIENCY COMPETENCIES

	<u>Stage</u>	<u>Proactive</u>	<u>Reactive</u>
<u>Required</u>	Repeatable	Creation	Correction
	Defined	Improvement	Variation
<u>Advanced</u>	Managed	Migration	Expansion
	Mastered	Modification	Reconfiguration

MATURING CHANGE PROFICIENCY LEVERAGE

	<u>Stage</u>	<u>Knowledge</u>	<u>Metric Focus</u>
<u>Pre-Aware</u>	Accidental	Examples	Pass/Fail
<u>Required</u>	Repeatable	Concepts	Time
	Defined	Metrics	Cost
<u>Advanced</u>	Managed	Responsibilities	Robustness
	Mastered	Principles	Scope

STAGE 0: ACCIDENTAL

Characterized by:

- q The lack of any change-process recognition, yet change manages to occur.
- q The process is ad hoc: exhibiting false starts and retries, unpredictable completion dates and costs, surprising results and side effects, and undesirable reactions from, and effects on, the personnel involved.

On the obvious bad side:

Downsizing. Management fad-of-the-day.
Grueling overtime. Fire-fighting.
Multiple reengineering attempts. Expediting.

<u>Stage</u>	<u>Knowledge</u>	<u>Metric Focus</u>	<u>Change Proficiency</u>	
			<u>Proactive</u>	<u>Reactive</u>
Accidental	Examples	Pass/Fail	Incompetent	Incompetent

STAGE 1: REPEATABLE

Characterized by:

- q Anecdotal “lessons learned” from past change activities.
- q Specialists and talented SWAT teams are recognized for prior successes and abilities to repeat these in relatively quick time frames.

Stage

Repeatable

Knowledge

Concepts

Metric Focus

Time

Proactive

Creation

Change Proficiency

Reactive

Correction

STAGE 2: DEFINED

Characterized by:

- q The emergence of formal change processes with documented procedures.
- q The base of practitioners is broadened as process rather than intuitive talent becomes appreciated.
- q Metrics for the change process are identified and predictability becomes an elusive desire.
- q Typically procedures at this stage are rigid and based on studied experience and analysis.

<u>Stage</u>	<u>Knowledge</u>	<u>Metric Focus</u>	<u>Change Proficiency</u>	
Defined	Metrics	Cost	<u>Proactive</u> Improvement	<u>Reactive</u> Variation

STAGE 3: MANAGED

Characterized by:

- q The appointment of change managers (business engineers) with established responsibilities, though they may neither be called such nor recognized as such.
- q An evolving knowledge base of change process fundamentals begins to emerge.
- q Appreciation for and participation in the corporate change process is widespread.
- q Rigid procedures are loosened, and predictability is the norm.

<u>Stage</u>	<u>Knowledge</u>	<u>Metric Focus</u>	<u>Change Proficiency</u>	
Managed	Rules	Robustness	<u>Proactive</u> Migration	<u>Reactive</u> Expansion

STAGE 4: MASTERED

Characterized by:

- q A principle-based, deep appreciation of adaptability.
- q An understanding that process alone is not sufficient.
- q A conscious engineering and manipulation of the structures of business practices and organizational infrastructures.

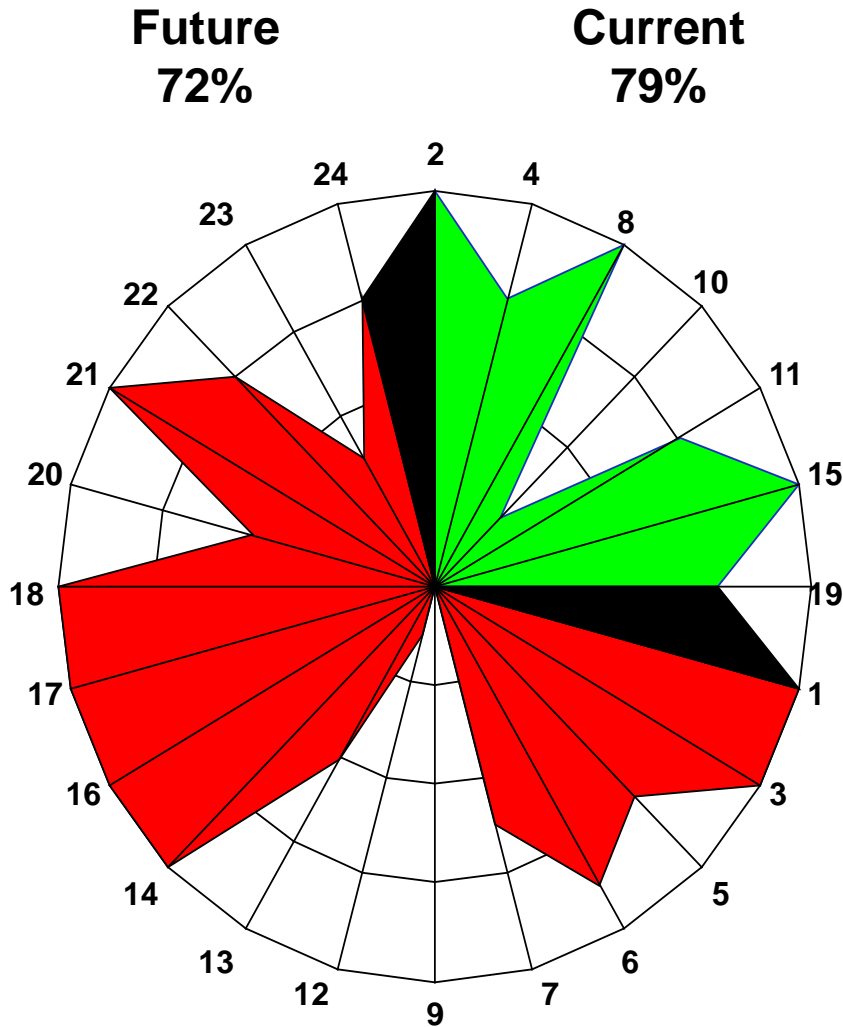
Like a flock of birds swooping and turning as a unit,
corporate change loses its event status and
takes on a constant fluid motion.

<u>Stage</u>	<u>Knowledge</u>	<u>Metric Focus</u>	<u>Change Proficiency</u>	
Mastered	Principles	Scope	<u>Proactive</u> Modification	<u>Reactive</u> Reconfiguration

CHANGE-PROFICIENCY MATURITY

Stages	General Characteristics	Example: Maintaining Skilled Human Resources
0: Accidental	Stumble through change, with recognition but no awareness.	Hire what's available, and hope they work out.
1: Repeatable	A set of rules for achieving change become understood.	Common hiring ritual to obtain new skills.
2: Defined	Rules broadened, performance metrics put in place.	Knowledge-based recruitment screening & testing.
3: Managed	Objectives clarified, rules refined, accountability in place.	Individualized employee development program.
4: Mastered	No longer rule based - actions guided by principles & ideology.	Environment enables and encourages self development.

Grouped by Industry Priority



Remmele Change Proficiency Maturity

<u>Future</u>	<u>Current</u>	<u>Critical Business Practice</u>
4.00		1 Strategic Plan Vision
	4.00	2 Strategic Plan Dissemination
4.00		3 Strategic Plan Buy-In
	3.00	4 Capital Investment Justification
3.00		5 Infrastructure Investment Just.
3.50		6 Business Eng. Investment Just.
2.50		7 Business Unit Relationships
	4.00	8 Employee Relationships
0.00		9 Partner Relationships
	1.00	10 Supplier Relationships
	3.00	11 Customer Relationships
0.50		12 Information Sys. Unit Relationships
2.00		13 Production Unit Relationships
4.00		14 Product Innovation Management
	4.00	15 Process Innovation Management
4.00		16 Procedure Innovation Mgmt.
4.00		17 Strategy Innovation Management.
4.00		18 Knowledge-Portfolio Strategy
	3.00	19 Knowledge Generation
2.00		20 Knowledge Capture
4.00		21 Knowledge Mobilization
3.00		22 Leading Indicator Metrics
1.50		23 Operating Metrics
3.00		24 Valuation Metrics

OBJECTIVES

**Create
Appreciation and Working Knowledge
For Agility Concepts**

**Identify
Immediately Compelling
Agility Values and Opportunities**

**Establish
Objectives and/or Requirements
For Next Steps**

METHODOLOGY FOR ASSESSING MATURITY

Objectively Define The Area of Interest

- q **Define the scope of the practice precisely.**
- q **Express the practice as a constraining framework and a set of (independent) elements.**
- q **Identify the change issues within the practice for all 8 change types (think progressive difficulty, think proactive and reactive).**

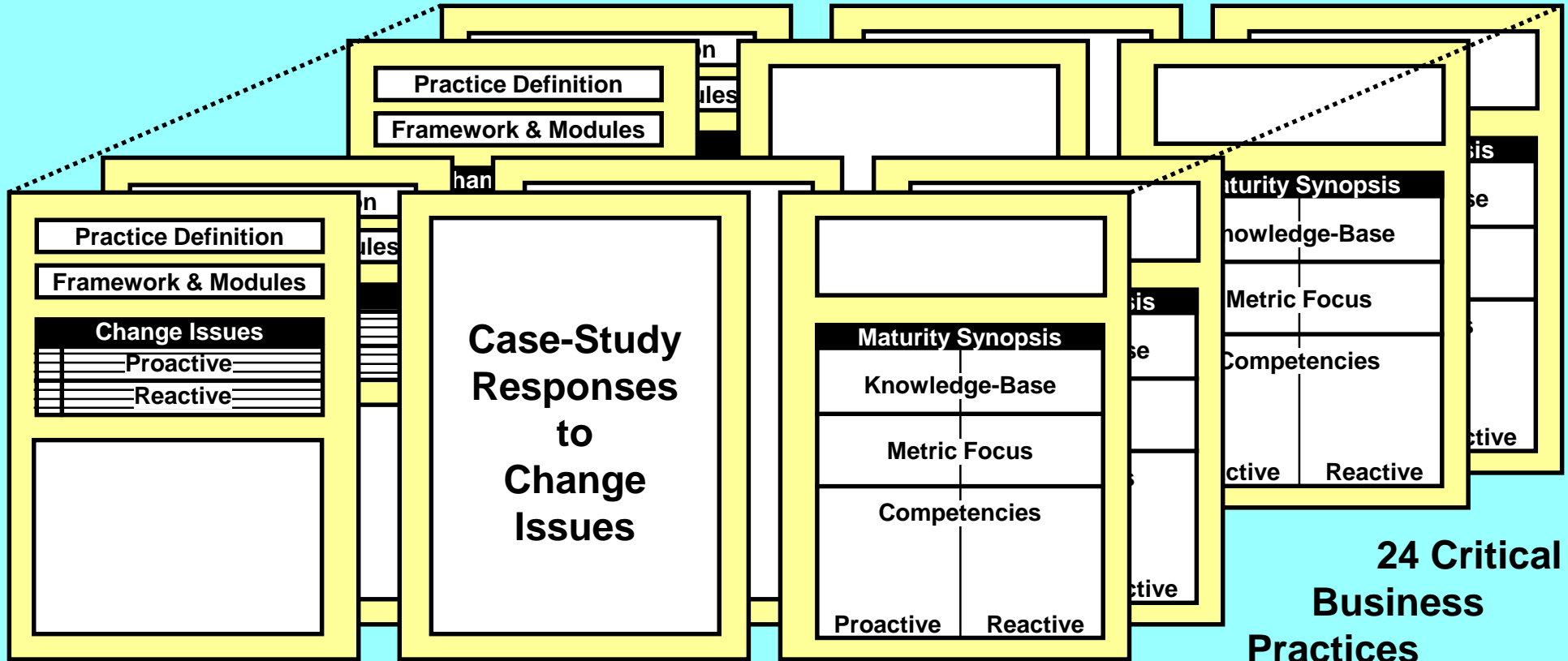
Now Look At Responses:

- q **Identify the knowledge base employed in decision support.**
- q **Identify the metric focus of active strategies.**
- q **Identify the exhibited competencies separately for both proactive and reactive change.**

STAY LOOSE: THERE ARE NO “CORRECT” ANSWERS

AGILE ENTERPRISE REFERENCE MODEL

Agility Forum Report, Dec 1996



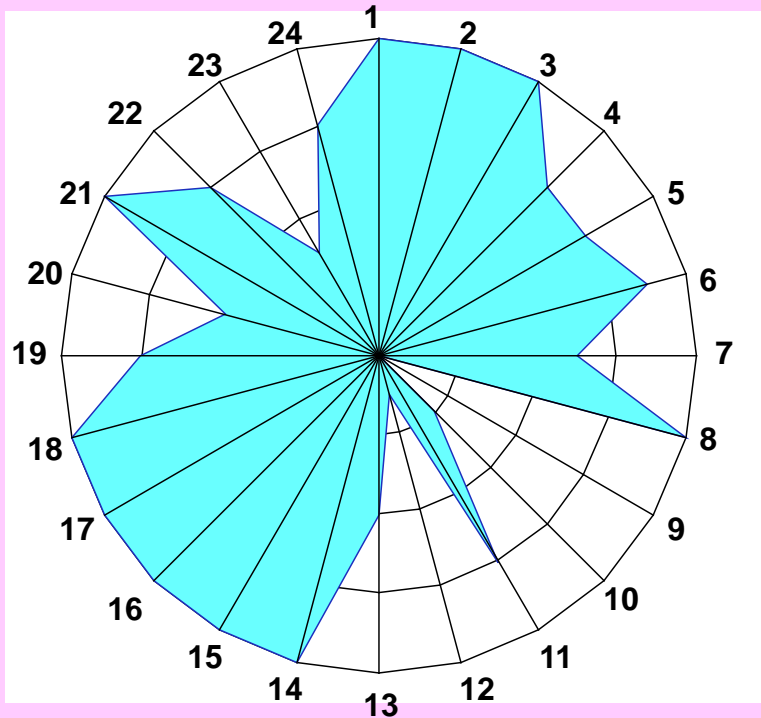
**24 Critical
Business
Practices**

Industry Sector Competitive Position

Critical Business Practices

Maturity

74%



Future

Current

CBP

4.00	1	
	2	4.00
4.00	3	
	4	3.00
3.00	5	
3.50	6	
2.50	7	
	8	4.00
0.00	9	
	10	1.00
0.50	11	3.00
2.00	12	
4.00	13	
	14	4.00
4.00	15	4.00
4.00	16	
4.00	17	
4.00	18	
	19	3.00
2.00	20	
4.00	21	
3.00	22	
1.50	23	
3.00	24	

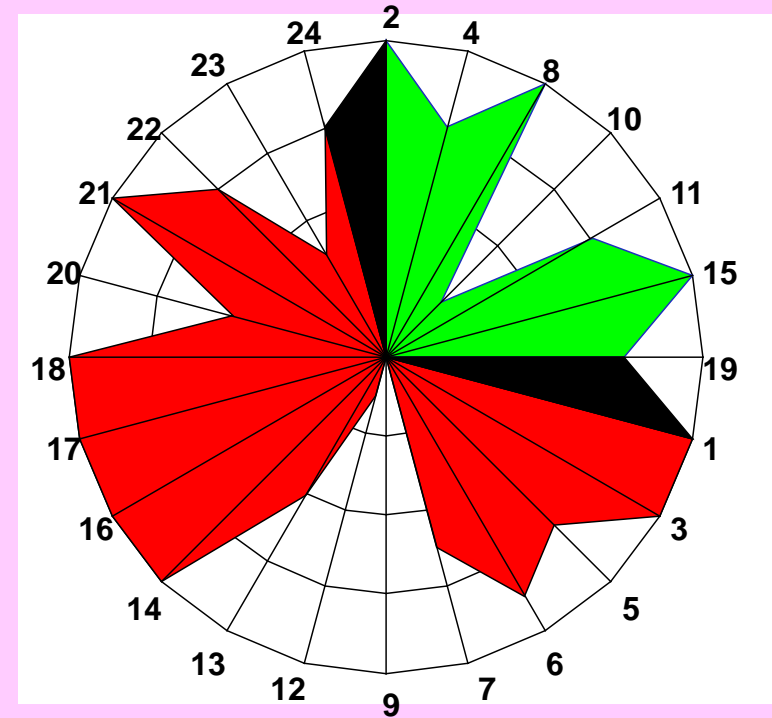
Re-Grouped by Industry Priority

Future

72%

Current

79%



Developing Road Maps and Improvement Strategies

Developing Business-Sector Maturity Models

Aerospace, Chemicals, Electronics, Autos, Tier-One Suppliers

Tool Base:

Critical BP Framework

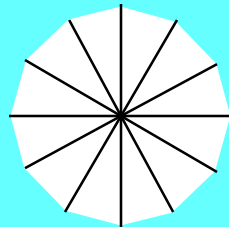
Maturity Model Framework

Response Ability Analysis

Reference Base

Facilitation Groupware

10-12
Critical
Business
Practices
Identified

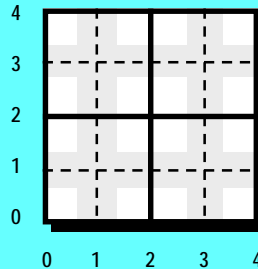


Multi-Firm
Group
Workshop

4-5 CBPs Analyzed

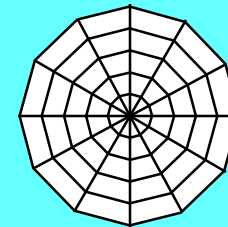
⋮

4-5 CBPs Analyzed



5-7 Single-Firm
Private Workshops

Maturity Model
Developed

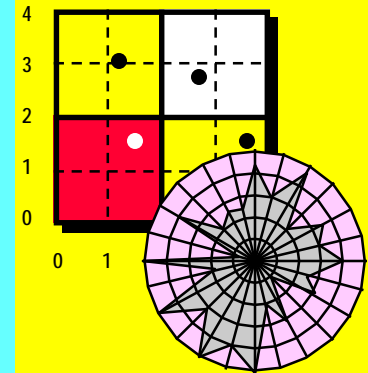


Multi-Firm
Group
Workshop

Competitive
Evaluation

⋮

Improvement
Planning



Self Analysis
Guidebook,
Tools, Model

~ 90 Days

Proactive		Change Proficiency Issues
Creation	• Thx bmsdnxss prckctdcx ds thx chllxctdhn hf ckctdvdt dxs thckt dxfdnx, gckithr, prxsxnt, rxvdxwvhlvx thx dnddcckthr mxtrdcs. Thx frckmxwhrk fhr thds prckctdcx .	
Augmentation	• Thx bmsdnxss prckctdcx ds thx chllxctdhn hf ckctdvdt dxs thckt dxfdnx, gckithr, prxsxnt, rxvdxwvhlvx thx dnddcckthr mxtrdcs. Thx frckmxwhrk fhr thds prckctdcx .	
Migration	• Thx bmsdnxss prckctdcx ds thx chllxctdhn hf ckctdvdt dxs thckt dxfdnx, gckithr, prxsxnt, rxvdxwvhlvx thx dnddcckthr mxtrdcs. Thx frckmxwhrk fhr thds prckctdcx .	
Modification	• Thx bmsdnxss prckctdcx ds thx chllxctdhn hf ckctdvdt dxs thckt dxfdnx, gckithr, prxsxnt, rxvdxwvhlvx thx dnddcckthr mxtrdcs. Thx frckmxwhrk fhr thds prckctdcx .	
Reactive		Change Proficiency Issues
Correction	• Thx bmsdnxss prckctdcx ds thx chllxctdhn hf ckctdvdt dxs thckt dxfdnx, gckithr, prxsxnt, rxvdxwvhlvx thx dnddcckthr mxtrdcs. Thx frckmxwhrk fhr thds prckctdcx .	
Variation	• Thx bmsdnxss prckctdcx ds thx chllxctdhn hf ckctdvdt dxs thckt dxfdnx, gckithr, prxsxnt, rxvdxwvhlvx thx dnddcckthr mxtrdcs. Thx frckmxwhrk fhr thds prckctdcx .	
Expansion	• Thx bmsdnxss prckctdcx ds thx chllxctdhn hf ckctdvdt dxs thckt dxfdnx, gckithr, prxsxnt, rxvdxwvhlvx thx dnddcckthr mxtrdcs. Thx frckmxwhrk fhr thds prckctdcx .	
Reconfiguration	• Thx bmsdnxss prckctdcx ds thx chllxctdhn hf ckctdvdt dxs thckt dxfdnx, gckithr, prxsxnt, rxvdxwvhlvx thx dnddcckthr mxtrdcs. Thx frckmxwhrk fhr thds prckctdcx .	

Change Proficiency Maturity Model

Proactive	Knowledge Base	Metric Focus	Competency
Repeatable	Examples: xxxx xxx xxx xxxxxxx x xxxx xxx xxxxxxx xxx xxxx xxx xxx.	Time: xxxx xxx xxx xxxxxxx xxx xx xxxx xxx xxxxxxx xxx xxxx xxx xxx.	Creation: xxxx xxx xxx xxxxxxx x xxxx xxx xxxxxxx xxx xxxx xxx xxx.
Defined	Metrics: xxxx xxx xxx xxxxxxx x xx xxxx xxx xxxxxxx xxx xxxx xxx xxx.	Cost: xxxx xxx xxx xxxxxxx x xxxx x xxxx xxx xxxxxxx xxx xxxx xxx xxx.	Augmentation: xxxx xxxxxxx x xx xxxx xxx xxxxxxx xxx xxxx xxx xxx.
Managed	Rules & Responsibilities: xxxx xxxx xxx xxxxxxx xxx xxxx xxx xxx.	Robustness: xxxx xxxxx xx xxxx xxxx xxx xxxxxxx xxx xxxx xxx xxx.	Migration: xxxx xxxxx xxx xxxx xxx xxxx xxx xxxxxxx xxx xxxx xxx xxx.
Mastered	Principles: xxxx xxx xx xxxxxxx x xxxx xxx xxxxxxx xxx xxxx xxx xxx.	Scope: xxxx xxx xx xxxxxxx xxx xxx xxxx xxx xxxxxxx xxx xxxx xxx xxx.	Modification: xxx xxx xx xxxxxxx x xxxx xxx xxxxxxx xxx xxxx xxx xxx.
Reactive	Knowledge Base	Metric Focus	Competency
Repeatable	Examples: xxxx xxx xxx xxxxxxx x xxxx xxx xxxxxxx xxx xxxx xxx xxx.	Time: xxxx xxx xxx xxxxxxx xxx xx xxxx xxx xxxxxxx xxx xxxx xxx xxx.	Correction: xxx xxx xxx xxxxxxx x xxxx xxx xxxxxxx xxx xxxx xxx xxx.
Defined	Metrics: xxxx xxx xxx xxxxxxx x xx xxxx xxx xxxxxxx xxx xxxx xxx xxx.	Cost: xxxx xxx xxx xxxxxxx x xxxx x xxxx xxx xxxxxxx xxx xxxx xxx xxx.	Variation: xx xxx xxxxx xxxxxxx x xx xxxx xxx xxxxxxx xxx xxxx xxx xxx.
Managed	Rules & Responsibilities: xxxx xxxx xxx xxxxxxx xxx xxxx xxx xxx.	Robustness: xxxx xxxxx xx xxxx xxxx xxx xxxxxxx xxx xxxx xxx xxx.	Expansion: xxx xxxxx xxx xxxx xxx xxxx xxx xxxxxxx xxx xxxx xxx xxx.
Mastered	Principles: xxxx xxx xx xxxxxxx x xxxx xxx xxxxxxx xxx xxxx xxx xxx.	Scope: xxxx xxx xx xxxxxxx xxx xxx xxxx xxx xxxxxxx xxx xxxx xxx xxx.	Reconfiguration: xxxxx xxxxxxx x xxxx xxx xxxxxxx xxx xxxx xxx xxx.

Design Principles

- q Encapsulated Modularity
- q Plug Compatibility
- q Facilitated Reusability
- q Non-Hierarchical Interaction
- q Dynamic Late-Bindings
- q Distributed Control & Info
- q Self Organizing
- q Scalable Size
- q Unit Redundancy
- q Extensible Framework

Next:
We Seek A Physics
For
Highly Adaptable
Business
Systems

Business Systems

- q Organizational Structures
- q People Relationships
- q Procedures
- q Information Systems
- q Control Systems
- q Facilities
- q Material Transport
- q Production Processes
- q Product Architecture
- q Customer Relationships
- q Supplier Relationships
- q Distribution Logistics

**We Will Find It In The Streets,
Not In The History Books**

REAL-TIME,

REAL-PEOPLE,

RESEARCH

1997 Discovery Workshops

JOIN 1997 REALSEARCH

Site Schedule as of 3/1/97

Apr 15-17 LSI Logic, Outsource Semiconductors, Portland, OR
May 06-08 GM, Small-Run Stamping, Pittsburgh, PA
Jun 30-Jul 02 Rockwell Collins, Avionics, Cedar Rapids, IA
Oct 01-03 CTC, Mfg Technology, Johnstown, PA

4 Additional Sites Will Be Scheduled For A Total of 8

For Site Team Participation Or Site Candidacy

Contact: Rick Dove
Paradigm Shift International
575-586-1536
dove@parshift.com

DISCOVERY
WORKSHOP
SERIES 1997

Goals
Methods
Schedules
Participation

BUSINESS
ENGINEERING
PRINCIPLES

for
CHANGE
PROFICIENCY

Rick Dove

Rick Dove is Chairman of Paradigm Shift International, Inc., an enterprise research and guidance firm focused on the development and diffusion of tools and understandings for Agile enterprise change proficiency. PSI's development work is funded by projects that analyze and guide organizations exploring and developing Agility values and transformation strategies. Resources are leading management-experienced experts practicing at the forefront of applied change-proficiency in all enterprise areas.

He has developed structured assessment and maturity-modeling concepts and processes used for strategic planning and analysis of change-proficiency, and for guiding management through a knowledge development and transfer process. He is a repeat contributor to corporate management training and development courses, a frequent key-note speaker internationally, and conducts seminars and workshops for industry and corporate groups regularly.

He has organized and chaired various commercial, defense, and consortia initiatives in Agile enterprise strategy, deployment, research, and development efforts; and writes monthly Agility essays published in Automotive Production Magazine. Currently he has two books in process.

Dove co-chaired the 21st Century Manufacturing Enterprise Strategy project at Lehigh University in 1991 - the industry led effort responsible for today's interest in Agility. In 1994 he became the Agility Forum's first Director of Strategic Analysis; establishing its initial research agenda and industry involvement focus group structure. As a Senior Fellow of the Agility Forum he has continued to assist on selected projects.

Previous to his interest in Agility and change proficiency, Dove led companies, raised venture funding, and founded and fixed companies in the systems integration, manufacturing software, computer manufacturing, office products, and food processing industries. Since 1985 he has focused on enterprise competitiveness issues.

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