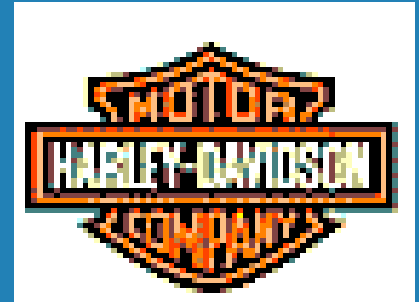


# Supply Chain Management Conference

Value Chain Development  
Trust & Cooperation Process

# Harley-Davidson Motor Company



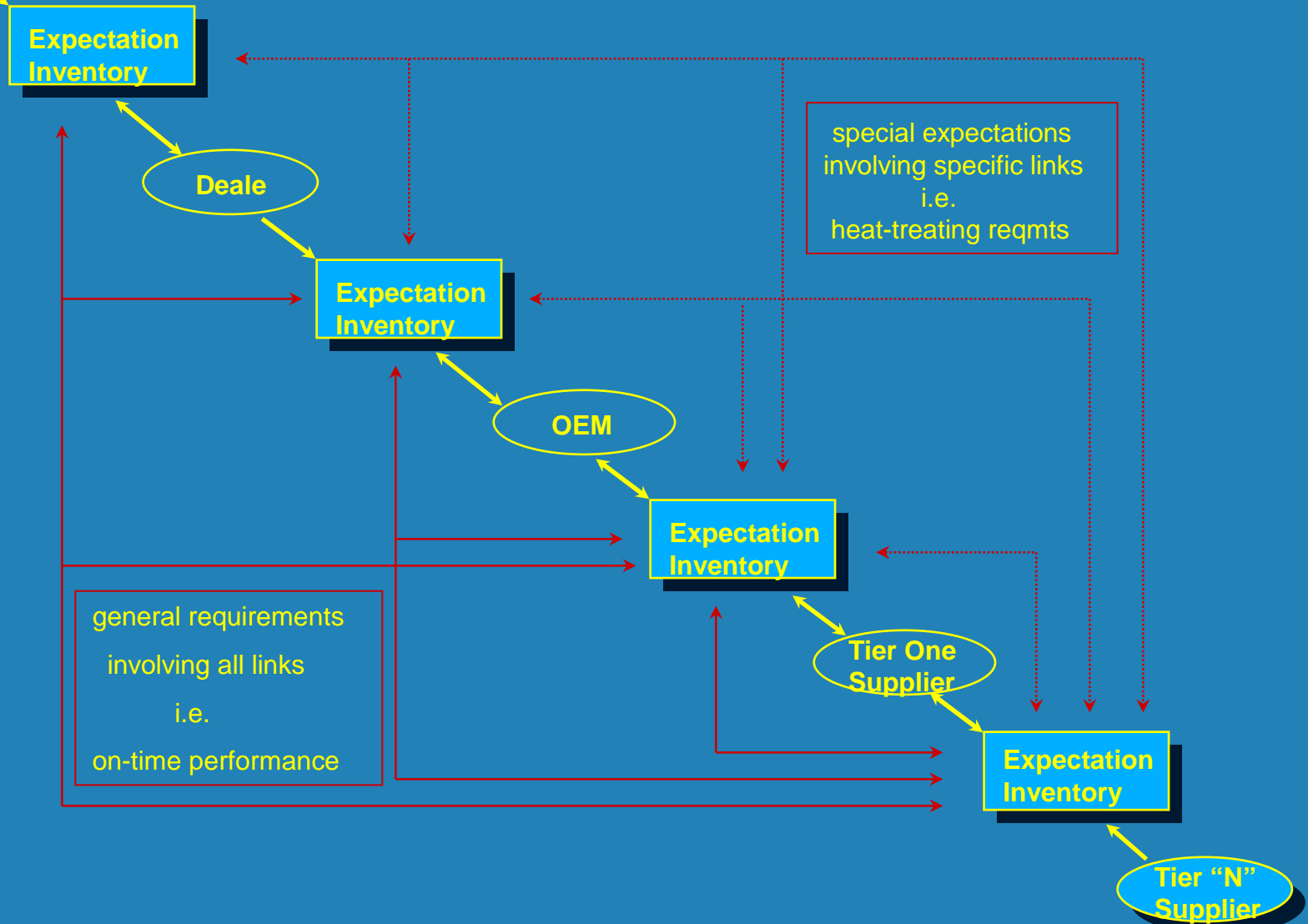
Leroy Zimdars

Director of Development  
Purchasing

Consumer

# The Extended Enterprise Expectations Inventory

© 1995 Mike Doyle & Bob Parker



# Axioms of the Optimized Supply Chain

## **Definition: Axiom (Gr. Axioma)**

A self evident truth or proposition, a principle universally received

A proposition whose truth is so evident at first sight that no process of reasoning or demonstration can make it any plainer

# Axioms of the Optimized Supply Chain

## **Axiom #1**

**There is a shared specific focus on satisfying the common end consumer**

# Axioms of the Optimized Supply Chain

## ***Axiom #2***

**There is an alignment of vision**

# Axioms of the Optimized Supply Chain

## **Axiom #3**

**There is a fundamental level of cooperation and performance to commitment (trust)**

# Axioms of the Optimized Supply Chain

## **Axiom #4**

**There is open and effective communication**



# Axioms of the Optimized Supply Chain

## **Axiom #5**

**Decisions are made by  
maximizing the use of the  
competencies and knowledge  
within the supply chain**

# Axioms of the Optimized Supply Chain

## **Axiom #6**

**All stakeholders are committed to  
generate long-term mutual  
benefits**

# Axioms of the Optimized Supply Chain

## **Axiom #7**

**There is a common view of how success is measured**

# Axioms of the Optimized Supply Chain

## **Axiom #8**

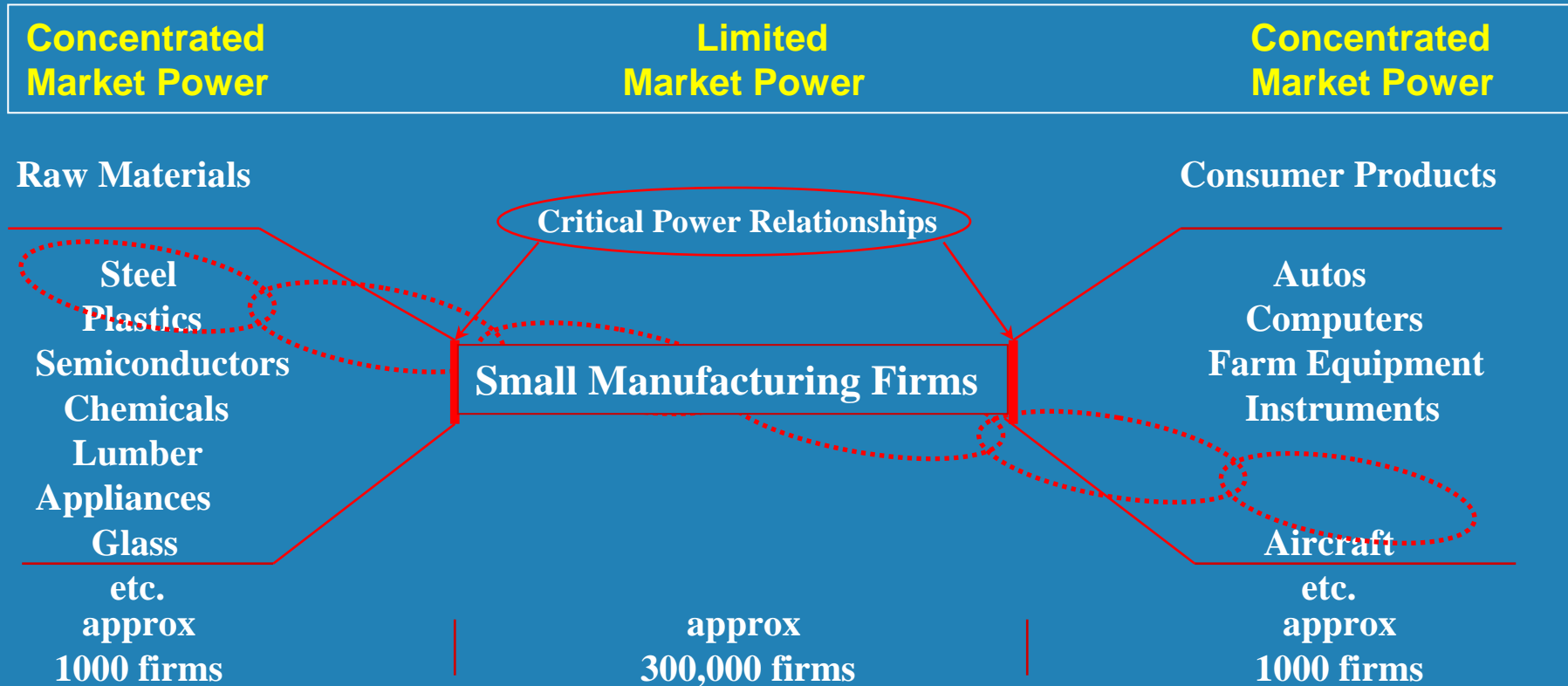
**All members are committed to continuous improvement and breakthrough advancements**

# Axioms of the Optimized Supply Chain

## **Axiom #9**

**Whatever competitive pressures that exist in the environment are allowed to exist within the extended enterprise**

# Typical Supply-Chain Power Relationships



© 1995 DOYLE CONSULTING GROUP, LLP

*To function as one organism, your key supply chains must bridge the critical power relationships they contain*

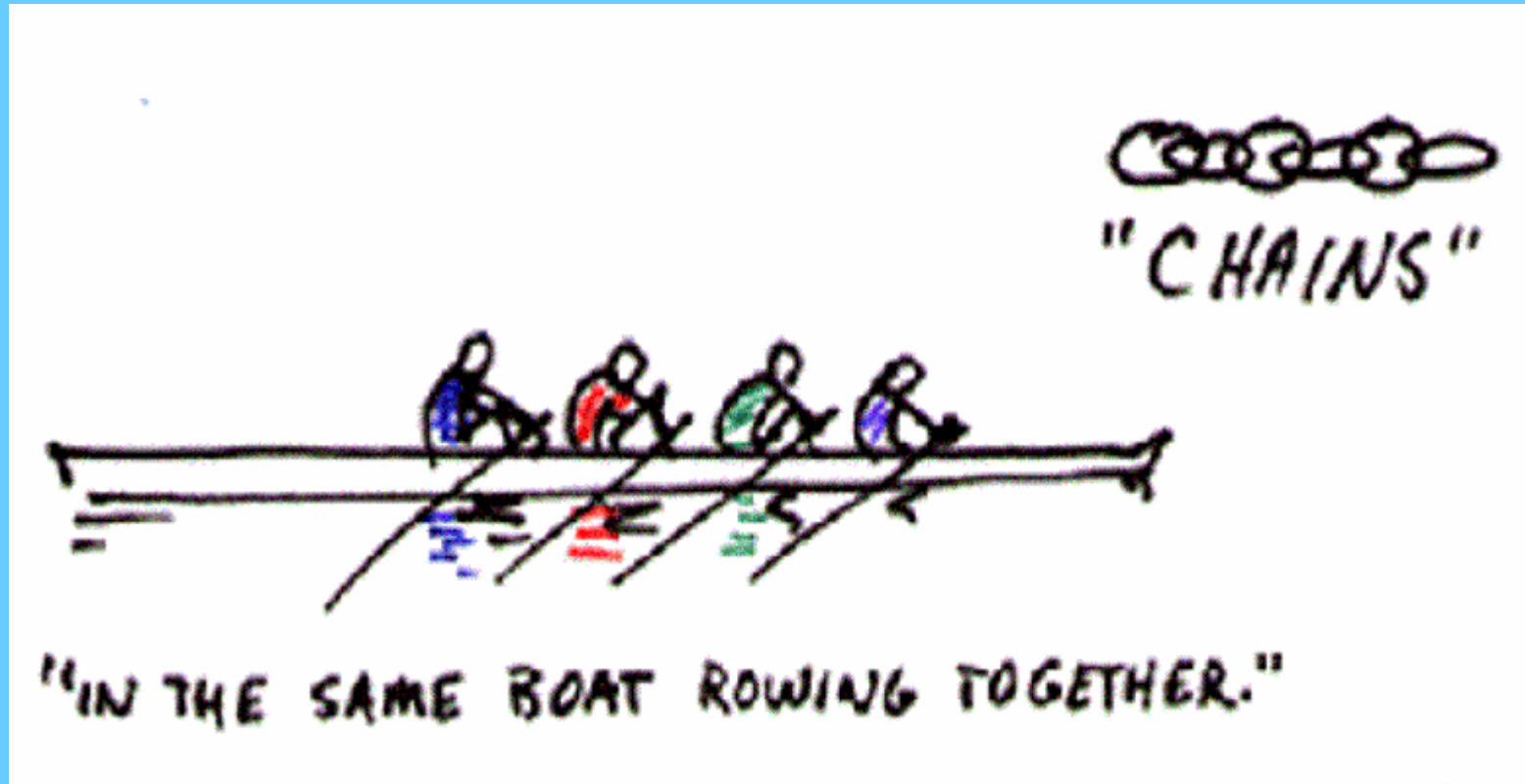


## National Initiative for Supply Chain Integration

A non-profit organization headquartered in Chicago and founded in 1997 helps member businesses research and develop ways to optimize the performance of supply chains between three or more trading partners.

The purpose is to make U.S. based manufacturers more competitive in global markets.

# NATIONAL INITIATIVE OF SUPPLY CHAIN INTEGRATION



## NISCI Charter Members

AK Steel

Chrysler

Deere

Harley-Davidson

Honda

IBM

Intel

NAPM

Procter & Gamble

Supply America

Trane



# The six Initiatives of NISCI

## The six Initiatives of NISCI

*Working together to improve ourselves by . . .*

**1) stimulating value creation**

*. . . across three links or more*

# The six Initiatives of NISCI

## The six Initiatives of NISCI

*Working together to improve ourselves by . . .*

**2) standardizing and certifying  
education and training to  
enhance performance**

*. . . across three links or more*

# The six Initiatives of NISCI

## The six Initiatives of NISCI

*Working together to improve ourselves by . . .*

**3) designing chain architecture  
which supports real-time,  
consensus decision-making**

*. . . across three links or more*

# The six Initiatives of NISCI

## The six Initiatives of NISCI

*Working together to improve ourselves by . . .*

**4) measuring chain economic performance**

*. . . across three links or more*

# The six Initiatives of NISCI

## The six Initiatives of NISCI

*Working together to improve ourselves by . . .*

**5) creating trust, culture  
and people processes  
which support cooperation**

*. . . across three links or more*

# The six Initiatives of NISCI

## The six Initiatives of NISCI

*Working together to improve ourselves by . . .*

**6) creating a legal, regulatory  
and legislative environment  
which facilitates collective improvement**

*. . . across three links or more*

## ***The NISCI Process***



→ → → The path to successful supply-chain integration → → →

Trust-Building &  
Cooperation  
Module



A program from the National Initiative for Supply Chain Integration, Ltd.



# NISCI Trust & Cooperation Module



Sets a Proper Foundation for Building  
Sufficient Trust and Cooperation.

# NISCI Trust & Cooperation Module



Allows Integration of Supply Chain Activities  
in a Way Which facilitates Greater Added Value  
To The Shared Customer

# NISCI Trust & Cooperation Module



## Cooperation Day

**Workshop Designed To Support  
Chain Development Activities**

# NISCI Trust & Cooperation Module

## Cooperation Day Pre-Work

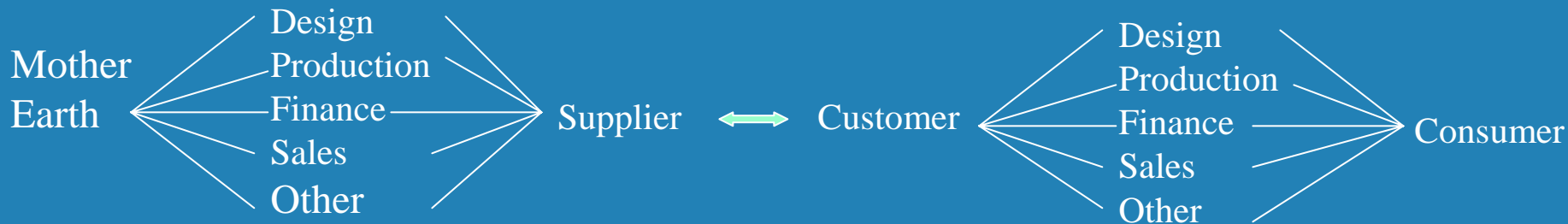
- \* Select a Champion For the Chain
- \* Determine the Mandate Team Members
- \* Areas Chain Should Work Towards  
Achieving Consensus Decisions
- \* Straw Person List of Behaviors

# NISCI Trust & Cooperation Module

## Mandate Teams

### Supplier Mandate Team

### Customer Mandate Team



# NISCI Trust & Cooperation Module

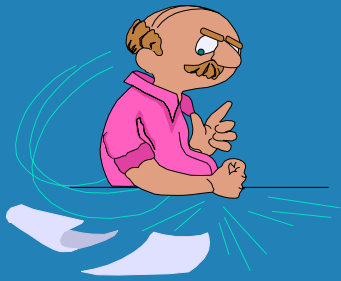
## Areas of Improved Consensus Decisions

- \* Program Plans and Timing
- \* Chain Membership
- \* Technology Acquisition & Development
- \* Integrated, Concurrent Design & Mfg.

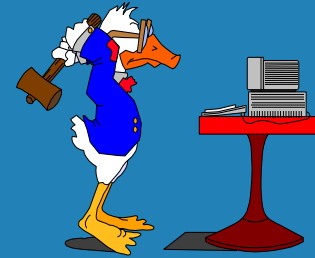
# NISCI Trust & Cooperation Module

## Areas of Improved Consensus Decisions

- \* Opportunity Scanning
- \* Competence Sharing
- \* Knowledge Acquisition & Development
- \* Resource Utilization
- \* Measurement Methods



# BEHAVIORS



- Listen To And Consider The Other Person's Opinion First
- Seek Win-Win Solutions And Opportunities
- Encourage The Airing Of Issues
- Recognize It Is Acceptable To Have Occasional Disagreements
- Mandate Team Members Will Access Website At Least Every Two Business Days



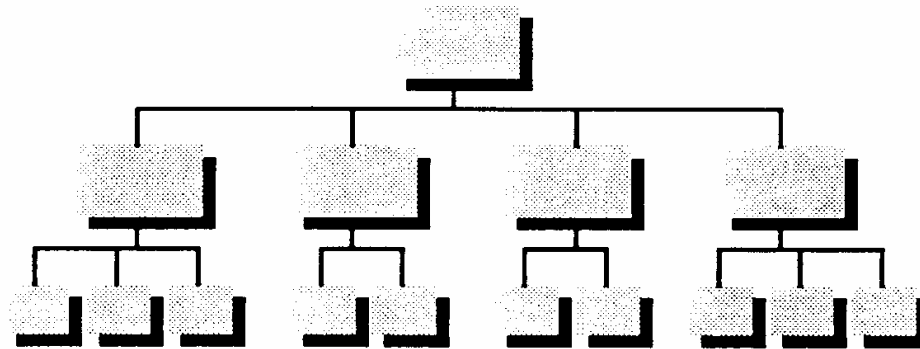
# NISCI Trust & Cooperation Module

## Cooperation Day Activities



# Change In Your Mental Model

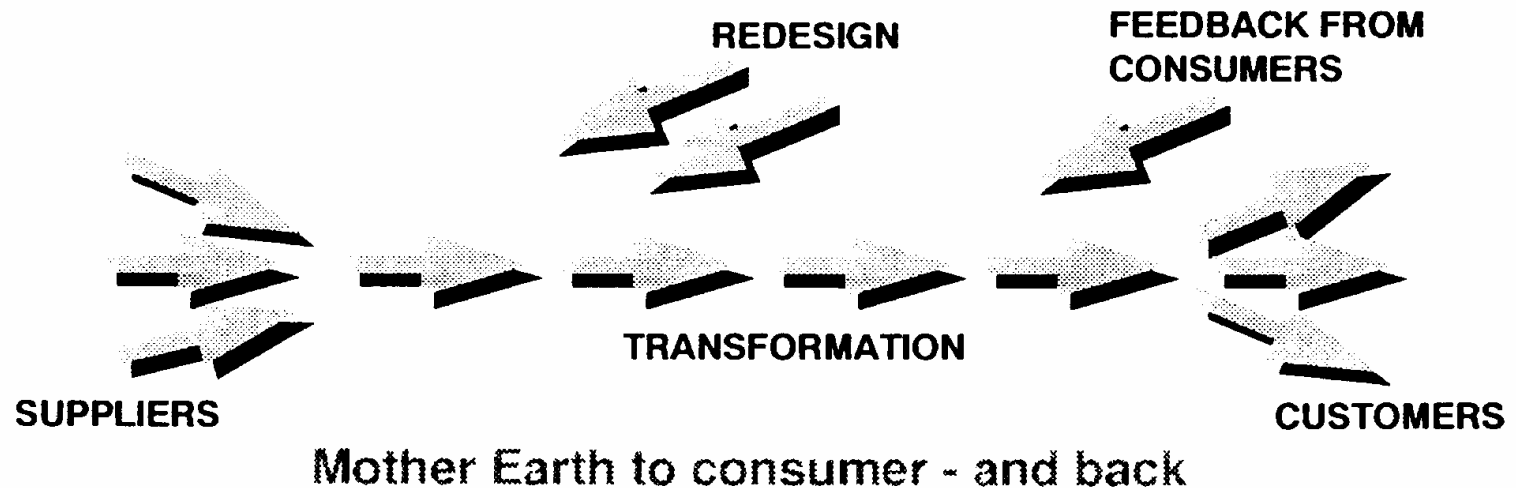
## FROM HIERARCHICAL THINKING....



**Chain of Command**

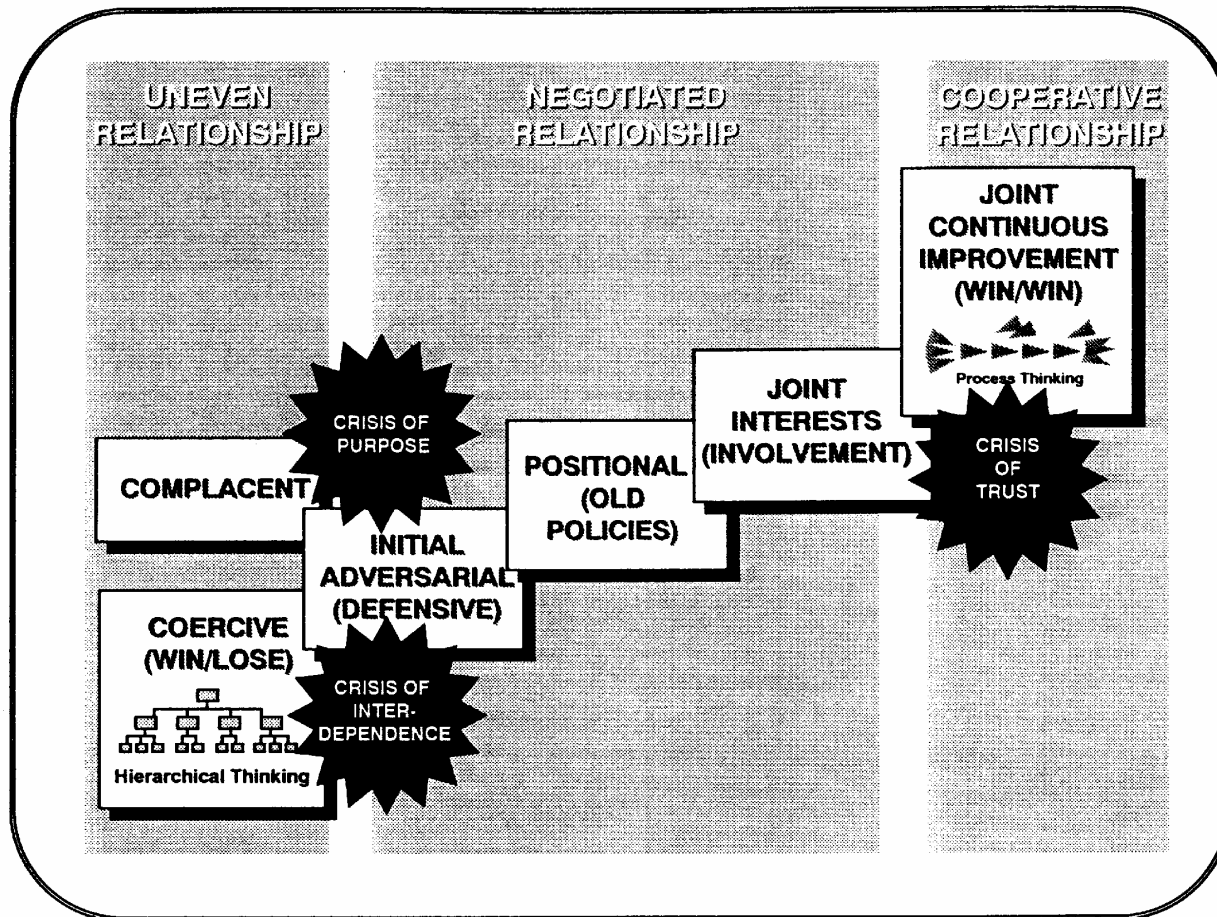
# Change in Your Mental Model

## ....TO PROCESS THINKING



# The Relationship Journey

**THE RELATIONSHIP JOURNEY**  
between people, departments and companies



# HARLEY-DAVIDSON'S SUPPLY CHAIN



## End Product Manufacturer

- Motor Cycle Manufacturer

## Tier #1 Supplier

- Die Casting

## Tier #2 Suppliers

- Plating/ Polishing
- Die/Tooling



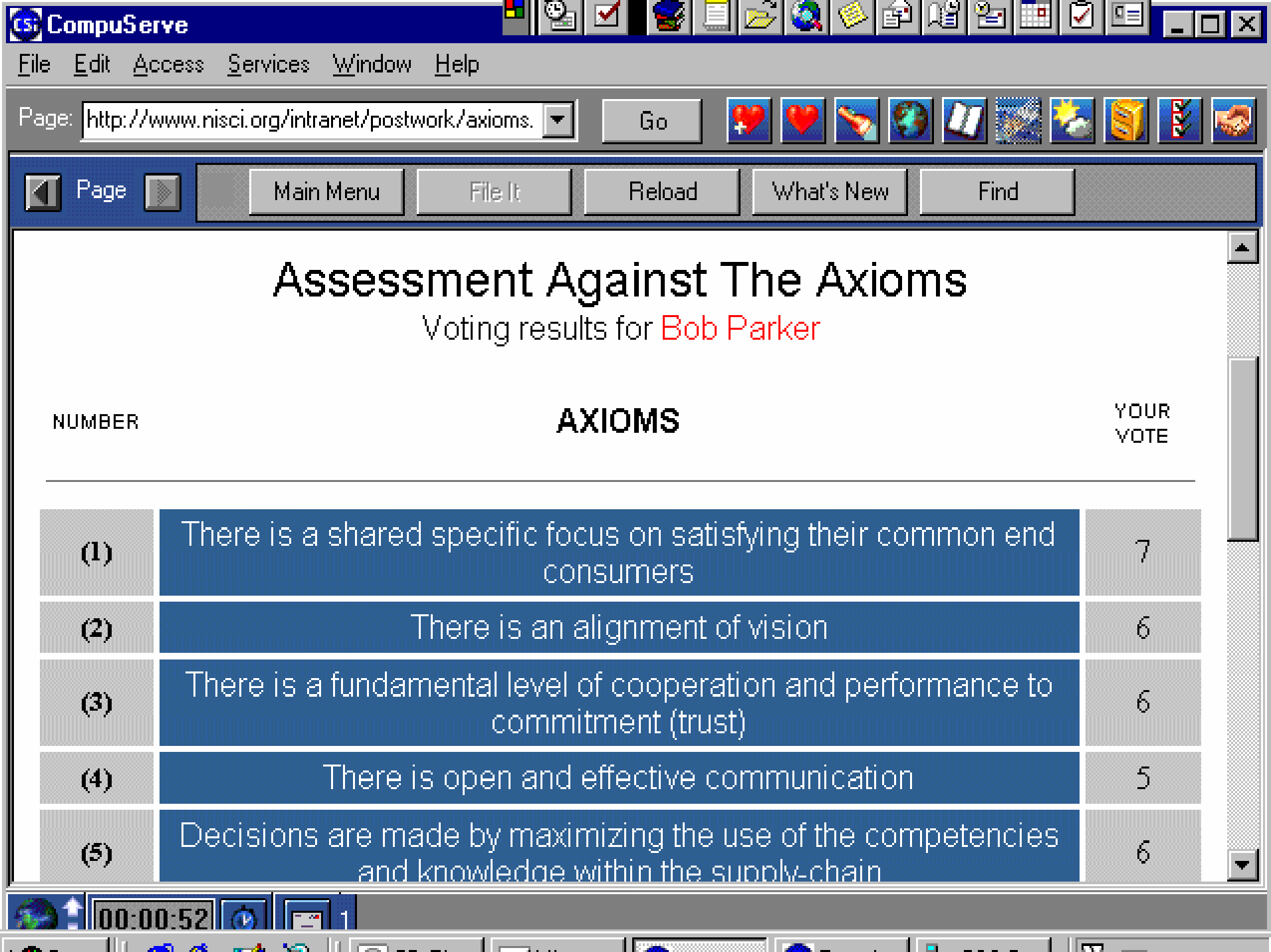
II) The firms who have agreed to work towards real-time, consensus decision with each other regarding their activities in the value-adding chain of event collectively produce the above-named products:



**tier #2  
supplier**

**tier #1 supplier**

**end-product  
manufacturer**



# Assessment Against The Axioms

Voting results for **Bob Parker**

NUMBER

AXIOMS

YOUR  
VOTE

(1)

There is a shared specific focus on satisfying their common end consumers

7

(2)

There is an alignment of vision

6

(3)

There is a fundamental level of cooperation and performance to commitment (trust)

6

(4)

There is open and effective communication

5

(5)

Decisions are made by maximizing the use of the competencies and knowledge within the supply-chain

6

FIRM NAME		1	2	3	4	5	6	7	8	9
MGTAYLOR CORPORATION	CURRENT	4.67	3	5	4	4	3.67	3.33	4	4.67
	PRIOR									
NATIONAL ACCOUNT MANAGEMENT ASSOCIATION	CURRENT	4.67	3	5	4	4	3.67	3.33	4	4.67
	PRIOR									
NATIONAL INITIATIVE FOR SUPPLY CHAIN INTEGRATION, LTD. (NISCI)	CURRENT	4.67	3	5	4	4	3.67	3.33	4	4.67
	PRIOR									
AUTOMOTIVE ORIGINAL EQUIPMENT SUPPLIERS ASSOCIATION	CURRENT	4.67	3	5	4	4	3.67	3.33	4	4.67
	PRIOR									
OVERALL AVERAGE	CURRENT	-	-	-	-	-	-	-	-	-
	PRIOR									



# NISCI Trust & Cooperation Module

## Identifying Concerns/Issues

Exercise: Walking in the Other Team's Moccasins



# NISCI Trust & Cooperation Module

## Creating/Assigning Expectations to Members



# NISCI Trust & Cooperation Module

Determine Measurable Operating Goals

## Benefits Other Companies Have Experienced

- **20-70% Quality Improvement**  
**30-90% Shorter Cycle Times**  
**15-30% Waste Reduction**  
**3X to Infinity Technology Gains**  
**Shared Risk/Diminished Hazards**

# NISCI MEASUREMENT INITIATIVE

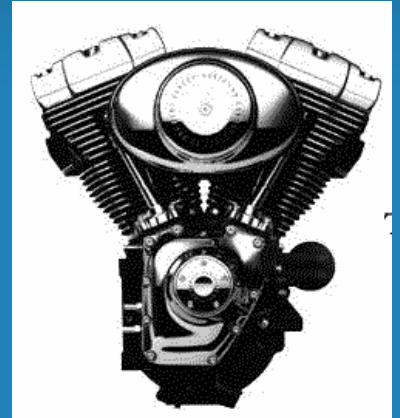
## PROPOSED MEASUREMENT TEMPLATE

### Focus:

Increasing Economic Value Added (EVA) for the supply chain should be the ultimate objective for the chain. By influencing the proposed measures in the positive direction indicated by the arrows shown below, EVA will be improved for the chain.

<u>Measure Class</u>	<u>Overall External Measure</u>	<u>Internal Chain Measure</u>
Financial	Revenue/Sales \$ ↑ Total Assets Employed ↓	Costs ↓ Inventories ↓ Other Assets ↓ Cost of Capital ↓
Quality (Product)	Customer Satisfaction ↑ Defects/Warranty ↓	Rejects (PPM) ↓ Scrap/Rework ↓
(Process)	Delivery Performance ↑	Order Fulfillment ↑
Cycle Time	Order to Delivery ↓ New Product Development Time ↓	Raw Material to Finished Good ↓ Chain Response Rate ↑ Production Flexibility ↑
Technology	Product Enhancements ↑	Product/Process Enhancements by each link in chain ↑

# Allied Die Casting Company



Scott Torphy  
Manager of Administration

# VALUE-ADDING CHAIN

RAM TOOL, INC.

AALLIED DIE CASTING

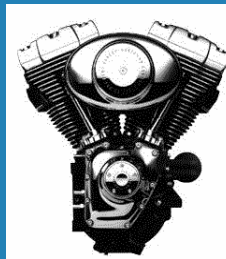
HARLEY-DAVIDSON  
MOTOR CO.

SOUTHWEST METAL  
FINISHING CO.

TIER #1 SUPPLIER

END PRODUCT  
MANUFACTURER

TIER #2 SUPPLIER



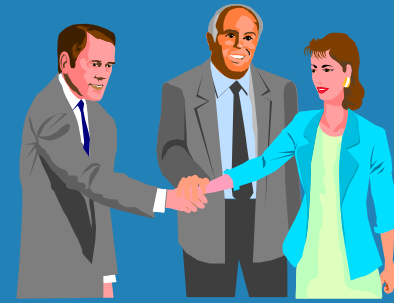
# VALUE CHAIN TEAMING

## Mandate Teams:

- One Team Per Link Of The Supply Chain
- “Pool Of Competence”
  - Designability
  - Produceability
  - Affordability
  - Saleability
  - Others
- Decision Making
  - Qualified & Empowered
  - Collective, Real-time



# COOPERATION DAY



- What Is Affecting The Relationship?
- Mandate Teams Identify Issues
- “Hard On The Problems, Soft On The People”
- Consensus Decision Making
- Paradigm Shift - Who Is The Customer?
  - Performance
  - Efficiency
  - Reduced Waste
- Dedicated Website Workbench
  - COMMUNITY



# SUPPLY CHAIN WEBSITE STRUCTURE

- Operating Goals
  - Strategic Goals
  - Decision Areas
  - Behaviors
- 
- Company & Team Information
  - Expectations & Performance Assessment



# OPERATING GOALS

- Reduce Rejected Parts By 50% At All Inspection Areas
- Shorten Cycle Time By 30%
- Reduce The Amount Of Waste By 20% Of The Total Cost
- Insure The Commitment For The Business Is Long Enough To Pay Back The Costs Of Investment

# STRATEGIC GOALS

- HARLEY-DAVIDSON TO DEFINE COSMETIC STANDARDS
- ALLIED DIE CASTING TO CONDUCT MORE CAPABILITY STUDIES
- RAM TOOL TO INSURE ACCURACY OF TOOLING REPEATABILITY
- SOUTHWEST TO IMPROVE PROCESS FLOW & DOCUMENTATION

# WEBSITE ACCESS

## Select Your Name

Please click on your name below  
If it does not appear then please type it in the box

<a href="#">Gary Tefft</a>	<a href="#">Leroy Zimdars</a>
<a href="#">Albert Keal</a>	<a href="#">R. C. Clark</a>
<a href="#">Michelle Kumbier</a>	<a href="#">John Hessler</a>
<a href="#">Jack Strunsee</a>	<a href="#">Rod Loucks</a>
<a href="#">Al Niesen</a>	<a href="#">Tim Treacy</a>
<a href="#">Roy Kannenberg</a>	<a href="#">Dan Schommer</a>
<a href="#">Craig Wichmann</a>	<a href="#">Michael Kannenberg</a>
<a href="#">Scott Torphy</a>	<a href="#">Wilson Wright</a>
<a href="#">Ashok Shrotriya</a>	<a href="#">Tom Kallenberger</a>
<a href="#">Mike Lenihan</a>	<a href="#">Martin Little</a>
<a href="#">Dale La Bounty</a>	

**HELP!** [Click here if your name is not listed above](#)

# WEBSITE MENU

[HELP](#) - Answers to frequently-asked questions and advice for minor trouble-shooting

[READ AHEAD](#) - Books and articles worth reading on the topic of trust and cooperation

## [PRE-WORK](#)

- [Securing Agreement](#) - definition of the Mandate Teams
- [Securing Agreement](#) - graphic presentation of a Mandate Team
- [Teaming](#) - areas for consensus decision-making
- [Teaming](#) - graphic of your particular supply chain
- [Requests for Improvement](#) - in behaviors used with each other

[MEMBERS](#) - Area for entering and viewing Mandate Team members

[FIRMS](#) - Area for entering and viewing particulars about all firms in the chain

[EXPECTATIONS](#) - menu for entering, viewing & assessing expectations of each other

- [View expectations in the system](#)
- [View expectations held of you](#)
- [View expectations you hold of others](#)
- [View expectations held of a specific colleague](#)
- [View expectations agreed by both parties](#)

[AXIOMS](#) - 9 Axioms of the successfully-integrated supply chain

- [Your assessment](#) on how well your chain exemplifies the axioms
- [Display average of all assessments](#), segmented by firm

## [POST-WORK](#)

- [Description of progress](#) your chain should have made by the end of your "Cooperation Day"
- [Guidelines for pooling](#) your expectations of each other

# GOAL AGREEMENT



What are our measurable operating goals?

Benefits others have accomplished:

Reduce rejected parts by 50% at all inspection locations.

20-70% quality improvement

Shorten cycle time by 30%.

30-90% shorter cycle times

Reduce the amount of waste by 20% of the total cost.

15-30% waste reduction

3X to infinity technology gains

Insure the committment for the business is long enough to  
pay back the costs of investment.

shared risk/diminished hazards

**Comment by clicking on an existing message subject, or posting a new message**

[Operating Goal Approval](#) posted by [Scott Torphy](#) on 6/4/98

[RE:Operating Goal Approval](#) posted by [Daniel Schommer](#) on 7/28/98

[Post new message](#) (thread)

# EXPECTATION AGREEMENT

## Original Expectation Request

Subject: Define Current Production Process

Date: 10/13/98

Time: 9:37:29 AM

Ranking: 0

Request of Scott Torphy

Request by Ashok Shrotriya

Expectation: Aallied to define its current production process relative to the following parts: P/N: 17571-99 XL Top Cover P/N: 17581-99 P22 Top Cover A copy of an existing CI Team developed process flow was faxed to Scott Torphy. This process must be reviewed by Aallied and e-mailed to Keith@cam.mgtaylor.com by 10/5/98.

Use this area to work on finalizing the expectation

Comment by clicking on an existing message subject, or posting a new message

[EXPECTATION AGREEMENT](#) posted by [Scott Torphy](#) on 10/13/98

[Process Submittal](#) posted by [Scott Torphy](#) on 10/19/98

[Post new message](#) (thread)

**Request by: Ashok Shrotriya**

**Request of: Scott Torphy**

**Date: 10/13/98**

**Time: 9:37:29 AM**

**Subject: Define Current Production Process**

**Original Expectation:** Aallied to define its current production process relative to the following parts: P/N: 17571-99 XL Top Cover P/N: 17581-99 P22 Top Cover A copy of an existing CI Team developed process flow was faxed to Scott Torphy. This process must be reviewed by Aallied and e-mailed to Keith@cam.mgtaylor.com by 10/5/98.

**Finalized Expectation:** Aallied to define its current production process relative to the following parts: P/N: 17571-99 XL Top Cover P/N: 17581-99 P22 Top Cover A copy of an existing CI Team developed process flow was faxed to Scott Torphy. This process must be reviewed by Aallied and e-mailed to Keith@zefer.com by 10/19/98.

Expectation has been agreed upon - Taguchi assessment possible

[DETAILS](#)

[TAGUCHI](#)

# PERFORMANCE ASSESSMENT

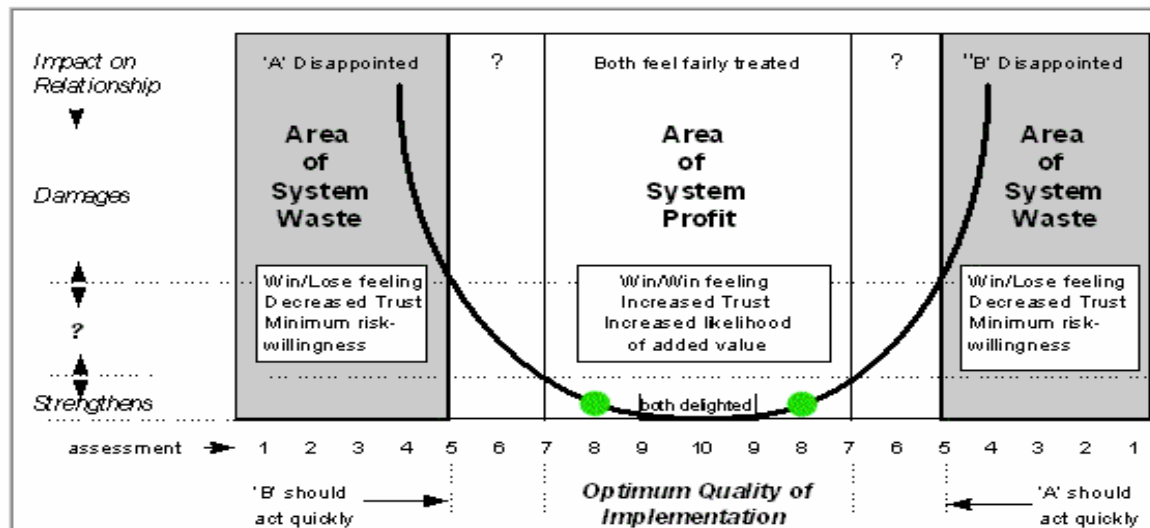
Original Expectation: Leroy, please introduce the 9 axioms to the value chain on 11/9/98.

Finalized Expectation: Leroy, please introduce the 9 axioms to the value chain on 11/9/98. THIS IS A SAMPLE TO SHOW TAGUCHI.

**Scott Torphy** if you have voted and you don't see the Taguchi curve, be patient, you will only be able to see the results once both you and **Leroy Zimdars** have voted.

Scott Torphy how do you rank Leroy Zimdars's job performance against this expectation?

Please enter a ranking between 1 and 10 in the box.

 submit



# SUPPLY CHAIN STATUS REPORT

- Focus On Tooling & Chrome Plated Top Cover
- Website/Teleconference/Face-To-Face Meetings
- Accomplishments:
  - Developed A Replacement Tooling Cycle
  - Defined Tooling Requirements
  - Defined Lead Times
  - Defined Process At Each Link Of The Supply Chain
- Determining Metrics For Quantifying Improvements
  - Operating Goals

# EXPECTED BENEFITS FROM SUPPLY CHAIN EFFORTS

- Decrease In Nonconforming Product = Higher Quality
- Decreased Manufacturing Costs = Lower Consumer Prices
- Improved Delivery Of Product
- Reduction Of Waste In Supply Chain
- Shared Savings

# NISCI



About NISCI  
Info about NISCI



Sponsors  
Links to sponsor  
Web Sites



Press Release  
NISCI's  
Press Releases



Intranet  
NISCI's Intranet

For More Information on NISCI  
Contact our Web Site

[www.NISCI.org](http://www.NISCI.org)