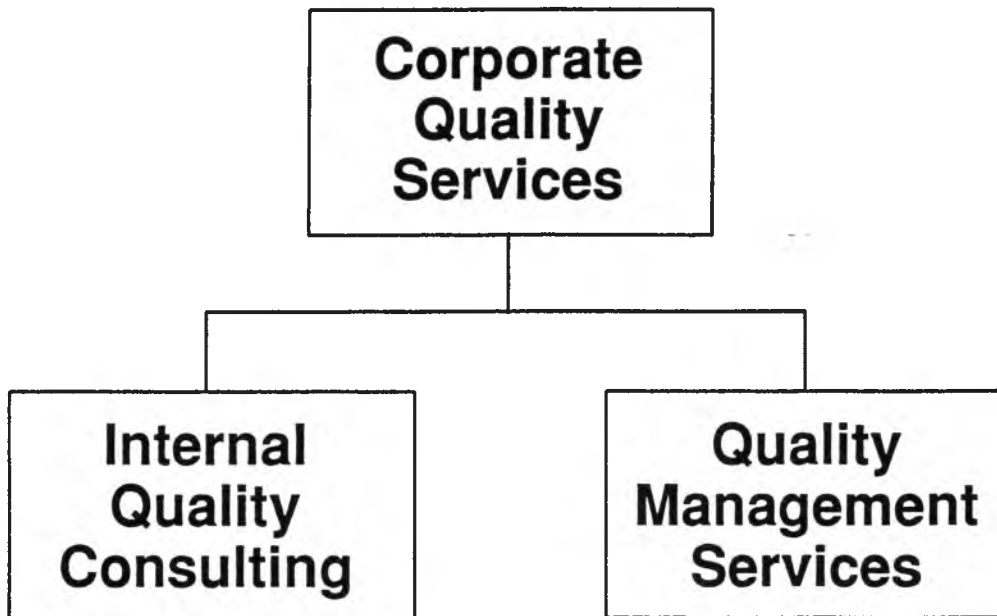


# TOTAL QUALITY MANAGEMENT IS IT REAL? ----- IS IT OF VALUE?

**Mike Graff**  
**3M Quality Management Services**  
**St. Paul, Minnesota**

## 1993 HIGHLIGHTS

- ***Fortune* Magazine's Most Admired Companies List**
- **Among Most Innovative Companies**  
**(*Fortune* List)**
- **100 Best Companies to Work for in America**
- **100 Best Companies for *Working Mothers***
- **Several Environmental and Quality Awards**



## **D WORDS**

- **Deficit Reduction**
- **Downsizing**

## **R WORDS**

- **Restructuring**
- **Reorganizing**
- **Reinventing**
- **Rightsizing**

# **CUSTOMER FOCUS**

- **Customer-Driven Government**

## **MAIN POINTS**

1. **What We Learned**
2. **Applications of Managing Total Quality in a 3M Operating Division**
3. **Application in a State Highway Division**
4. **The Value of Managing Total Quality**

## **MAIN POINTS**

**Why?**

**What?**

**How?**

- 1. Emphasizes Empowerment**
- 2. Promotes Open Decision Making**
- 3. Ties in Business Decisions to the Expectations of Customers**

**"I am Convinced that if the Rate of Change Inside an Institution is Less than the Rate of Change Outside, the End is in Sight"**

**John F. Welch  
Chairman and Chief Executive Officer  
General Electric**

## **TOTAL QUALITY MANAGEMENT**

**A Process Designed to Focus on Customer Expectations, Preventing Problems, Building Commitment to Quality in the Workforce, and Promoting Open Decision Making**

**"Learn from mistakes of others - you can't live long enough to make them all yourself."**

**From a Chinese Fortune Cookie**

## **WHAT WE LEARNED**

- **The Quality Process Requires Change**
- **Management Must Lead**
- **Emphasize Processes Within Which People Work**
- **A Specific Process Model Cannot be Transplanted**
- **Internal People Best Facilitators**
- **The Annual Plan Drives the Improvement Process**
- **Follow-up is a Key**
- **The Process Must be Driven by the Customers' Expectations**

## ***3M/TCM Mission***

**Traffic Control Materials Division exists to serve the needs and exceed the expectations of our customers worldwide. As an innovative growth division, TCM is responsive to our customers through people, technologies and financial resources.**

**TCM Division is successful in achieving our goals as we consistently satisfy the goals of our customers. TCM Division earns operating income and return on investment consistent with the value of products and services provided to our customers.**

**Together with our customers, TCM Division aggressively seeks a shared vision of the future, and therefore performs consistently as a market leader in the transportation safety industry.**

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**By the People of TCM Division**

## ***3M/TCM Vision***

**To be Judged by Our Customers Worldwide  
as the Best Supplier Serving the Transportation  
Safety Industry, by Consistently Providing the  
Highest Value Products and Services**

---

**By the People of TCM Division**

## ***3M TCM Operating Principles and Goals***

- ✓ **People committed to continuous improvement**
- ✓ **Customer driven (and meaning it)**
- ✓ **Team oriented (and meaning it)**
- ✓ **Strength in every function...  
Balance overall**
- ✓ **in every sense**
- ✓ **Specific goals that can be communicated easily and measured in practical ways**
- ✓ **Responsive, ethical and productive citizen (a citizen to be proud of)**

# *The Effective Organization*

- ✓ Clear direction
- ✓ Good plans/objectives
- ✓ Consistent communications
- ✓ Balanced team
- ✓ Energy...excitement
- ✓ A "oneness" in the eyes of the customer!
- ✓ Doing it!

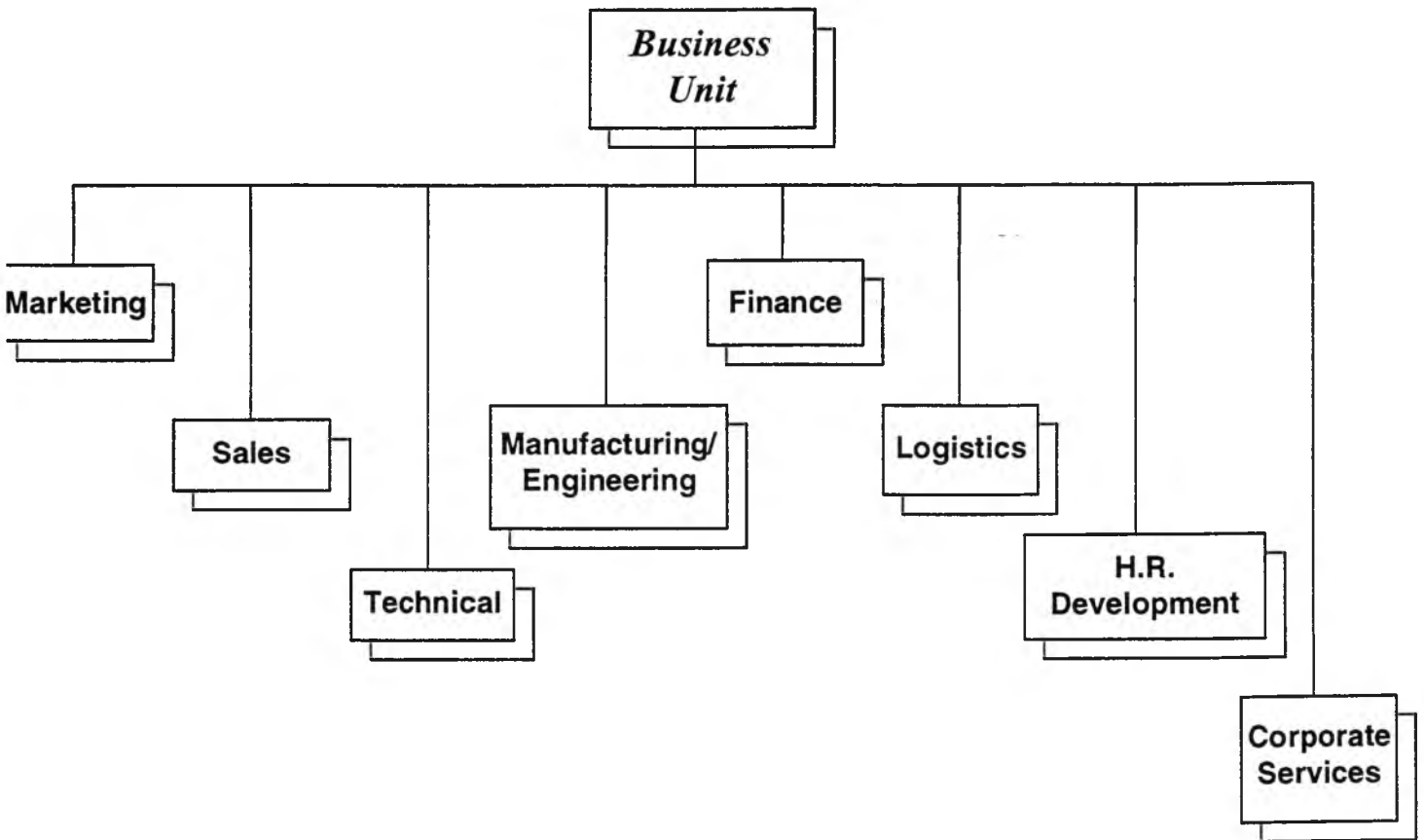
## ANNUAL IMPROVEMENT PLAN

Mission	What Business We are in
Vision	What We Want to be in That Business
Quality Policy	What We Value to Achieve the Vision
Critical Success Factors	Outcomes That Must Be Achieved in Order to Attain the Vision
Evidence of Success	Measures of Vision and Critical Success Factor Attainment
Organization-Wide Action	What Improvement Areas Cross-Functional Teams Will Address to Put the Critical Success Factors in Place
Function Action	What Functional Improvements of Internal Processes Teams will Address
Management Review	What Progress Has Been Made Toward Achieving the Improvement Goals



## *The "Customer"*

- ✓ Public Sector? - Private? - Government?
  - ✓ Successful? - Vulnerable?
  - ✓ Growth industry? - Mature?
  - ✓ Profitable? - Struggling?
  - ✓ Technology dependence?
  - ✓ Quality of people?
  - ✓ Turnover?
  - ✓ Continuing education?
  - ✓ Regulatory impact?
  - ✓ Internal communications?
  - ✓ Proprietary position?
  - ✓ Distribution channels?
    - Theirs? - Ours?
  - ✓ "Unique" applications?
  - ✓ Their competitive arena?
-



## PRICE/VALUE

- Full Line Supplier
- Customer Service
- Technical Service
- Delivery
- Replacement Policy
- Returned Goods Policy
- Terms/Financing
- Customer Training/Assistance/  
Education Support
- Market Growth/Development
- Industry Involvement
- 3M Sales Representatives

# INDUSTRY KEY SUCCESS FACTORS

1. Customer Satisfaction (Products & Services)
2. Government Relations and Coalition Network
3. Technological Leadership
4. Global Leadership and Presence - Market Coverage, Technical Support and Regional Manufacturing
5. Manufacturing Capacity and Effectiveness

## *The Effective Organization*

- ✓ The inevitable starting point...
  - the customer
  - His needs
  - His expectations
  - His view of 3M
- ✓ The meaning of "Responsiveness"
- ✓ The sense of "Team"
- ✓ The commitment to "Balance"
- ✓ Those other words...
  - Respect
  - Trust
  - Excitement
  - Accountability

# **CULTURE WILL CHANGE**

- **When There is Dissatisfaction with the Present Condition**
- **When There is Vision of a Better Future**
- **When There is a Plan That Can Achieve the Vision**

**"PEOPLE WHO CARE, CREATING  
QUALITY TRANSPORTATION ...  
TODAY AND TOMORROW."**

**Wisconsin Division of Highways' Vision**

# **PEOPLE**

**People are the Division of Highways' Biggest Asset**

# WHO CARE

**Caring Implies Our Sense of Concern. Special Feelings and Actions Fostered by Caring are the Foundation of our Relationship with Customers and Fellow Workers**

# CREATING

**"Creating" Means Each of Us Accepts the Responsibility to Look for New Ways to Do Our Business**

# QUALITY

**Our Focus on Quality is One of the Strengths of Our Division and Continues to be a Foundation of Our Vision as We Look to the Future.**

# **TRANSPORTATION**

**A Changing Wisconsin Population and Economy, New Environmental Priorities, Federal Laws, and the Unique Demands of Metropolitan Areas Call for a New Approach to Meet Our Transportation Needs**

## **TODAY AND TOMORROW**

**Never Rest On Yesterday's Successes**

# WHY MTQ?

## Proven Process:

- **Focus on Change --- Meet Customer Expectations**
- **Organize Resources --- Focus on Prevention Specific Improvement**
- **Create Vision --- Work Force Commitment**
- **Value Employees --- Pride Committed Work Force**

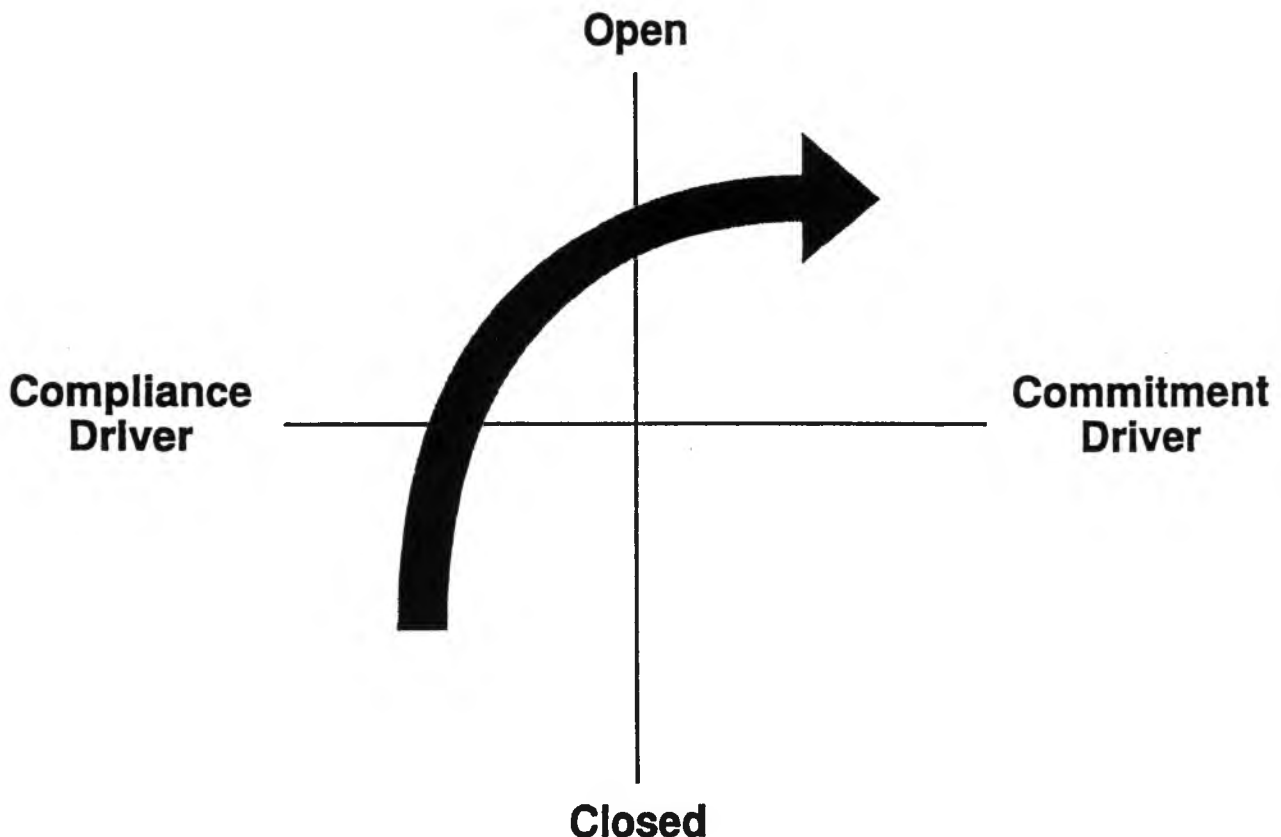
## RESULTS

- **50% Reduction in Time-To-Market**
- **Increase in Product Quality with Concurrent Decrease in Manufacturing Costs**
- **Factory Cycle Time Reduction From 30 Days to 30 Minutes**
- **In-process Inventories From 600 Hours to 6 Hours**
- **Three-Fold Increase in Productivity**
- **Unit Output Per Square Foot Increased Six-Fold**
- **Etc...**

# Financial Rewards

- **Continuous Improvement**
- **Increased Productivity**
- **Cost Reduction**

## ORGANIZATIONAL SITUATION ANALYSIS





# CHANGED MANAGEMENT BEHAVIOR

*From*

Managing

Directing

Competing

Relying on Rules

Using Organizational  
Hierarchy

Consistency/Sameness

Secrecy

Passive

Isolated Decisions

People Costs

*To*

Leading

Guiding

Collaborating

Focus on the Process

Using a Network

Diversity/Flexibility

Openness/Sharing

Risk Taking

Involvement of Others

People Assets

## TOTAL QUALITY

