FAPICS Association Française de Management des Opérations de la Chaîne Logistique

22 ième Congrès 12 Juillet 2013 PARIS

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Supply Chain MAGAZINE

CENTRALE PARIS Achats & Supply Chain
PURCHASING & SUPPLY CHAIN SUSTAINABLE EXCELLENCE

X-Sc

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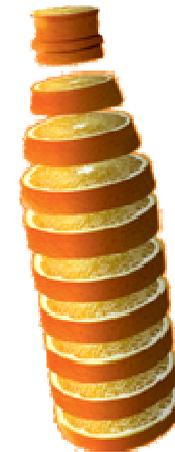
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Nos réseaux internationaux :

SCC and SCOR Overview

Supply Chain Council

Executive Presentation

12-07-2013 Paris

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If You Want to Understand a Business

Follow the Money!

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Supply Chain is Dominant Company Cost Driver

- In 2007, US business logistics costs rose to an all time high of $1.4 trillion (10.1% of US nominal Gross Domestic Product)[3]

- Supply-chain generally accounts for between **60% and 90% of all company costs**[1]

- A **2% improvement** in process efficiency for supply-chain processes has **3000% - 5000% the impact** of a 2% improvement in efficiency for… IT… HR… Finance[1]… Sales…

Fortune-10 Company Supply-Chain Cost as % of Total Costs [2]	
GM	94%
Ford	93%
Conoco	90%
Wal-Mart	90%
Chevron	88%
IBM	77%
Exxon	75%
GE	63%
Citi[1]	0%
AIG[1]	0%

1 Exclusive of Financial Services companies
2 Source: Hoovers 2006 Financial Data, Supply-Chain Council 2006 SCM Benchmark data on SCM cost for discrete & process industries
3 CSCMP 19th Annual State of the Logistics Industry

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The Dupont Model

Income Statement

			Net Sales
			$ 100 ↑
		Gross Profit	
		$ 40 ↑	**COGS**
	Net Profit		$ 60 ↓
Net Profit Margin	$ 3.00 ↑	Total Expenses	**Variable Expenses**
3 % ↑		$ 34 ↑	$ 12 ↑
			Fixed Expenses
	Sales		$ 18
	$ 100 ↑	Taxes	**Inventory Expenses**
		$ 3 ↑	$ 4 ↑

Return on net worth — Financial Leverage — ROA

Return on net worth	Financial Leverage	ROA
↑ 74.91 %	11	6.8 % ↑

Balance Sheet

	Sales		**Inventory**
Asset Turnover	$ 100 ↑	Current Assets	$ 16 ↓
2.27 ↑	divided by	$ 26 ↓	**Accounts Receivable**
	$ 44	**Fixed Assets**	$ 8 ↓
	Total Assets	$ 18 ↑	Other Currents Assets
			$ 2

Assumption: Financial Leverage is a company-wide constant = Total Assets / Shareholder Equity

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SCOR KPI's Help Measure Performance…

KPIs that manage the activities

Perfect Order Fulfillment

Order Fulfillment Cycle Time

Supply Chain Flexibility

Supply Chain Adaptability[†]

Supply Chain Management Cost

Cost of Goods Sold

Cash-to-Cash Cycle Time

Return on Supply Chain Fixed Assets

Return on Working Capital

Supply Chains Impact the Levers
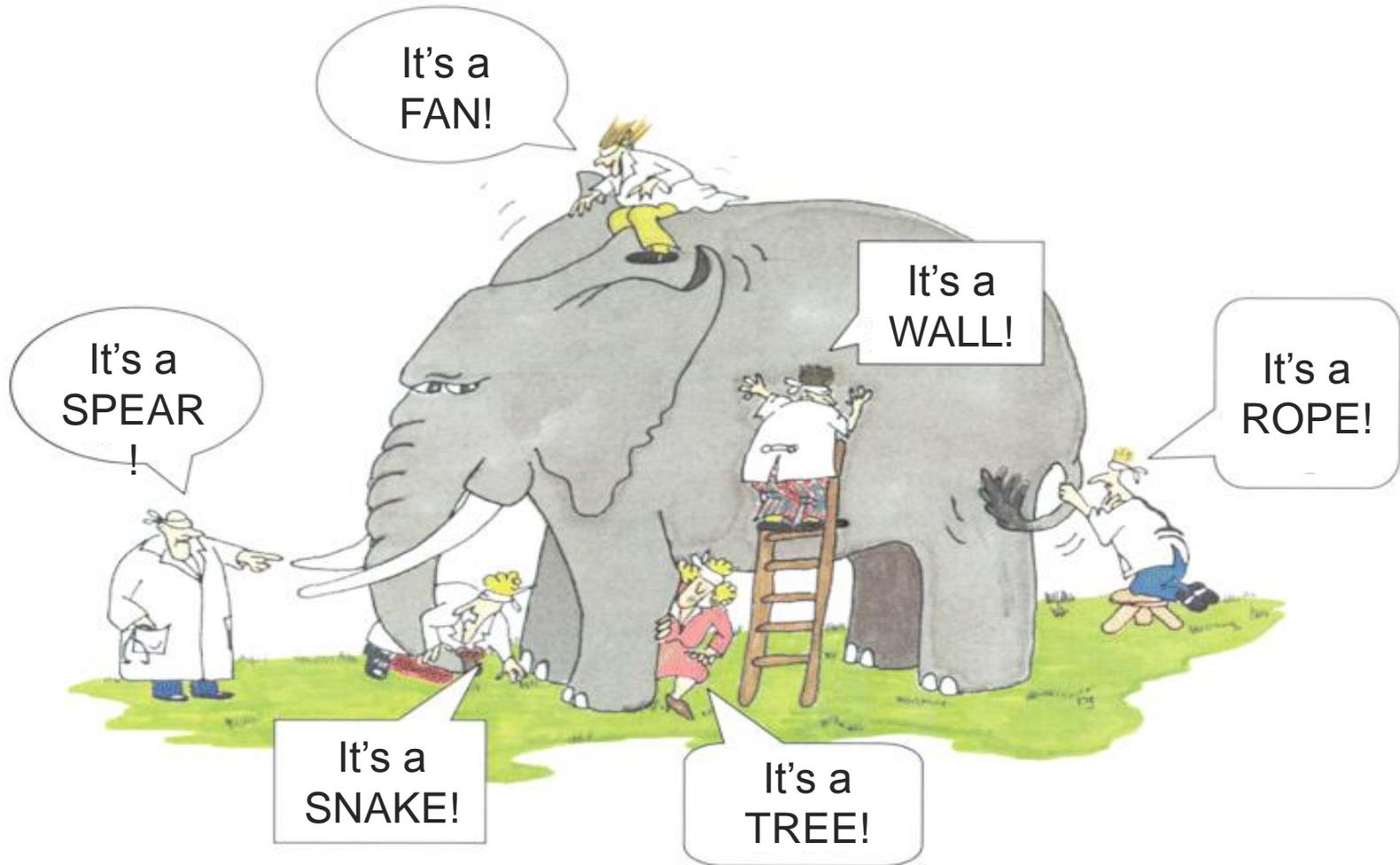
Revenue

Expense

Working Capital

Fixed Capital

Profit

Capital Efficiency

& Shareholder Value

Value

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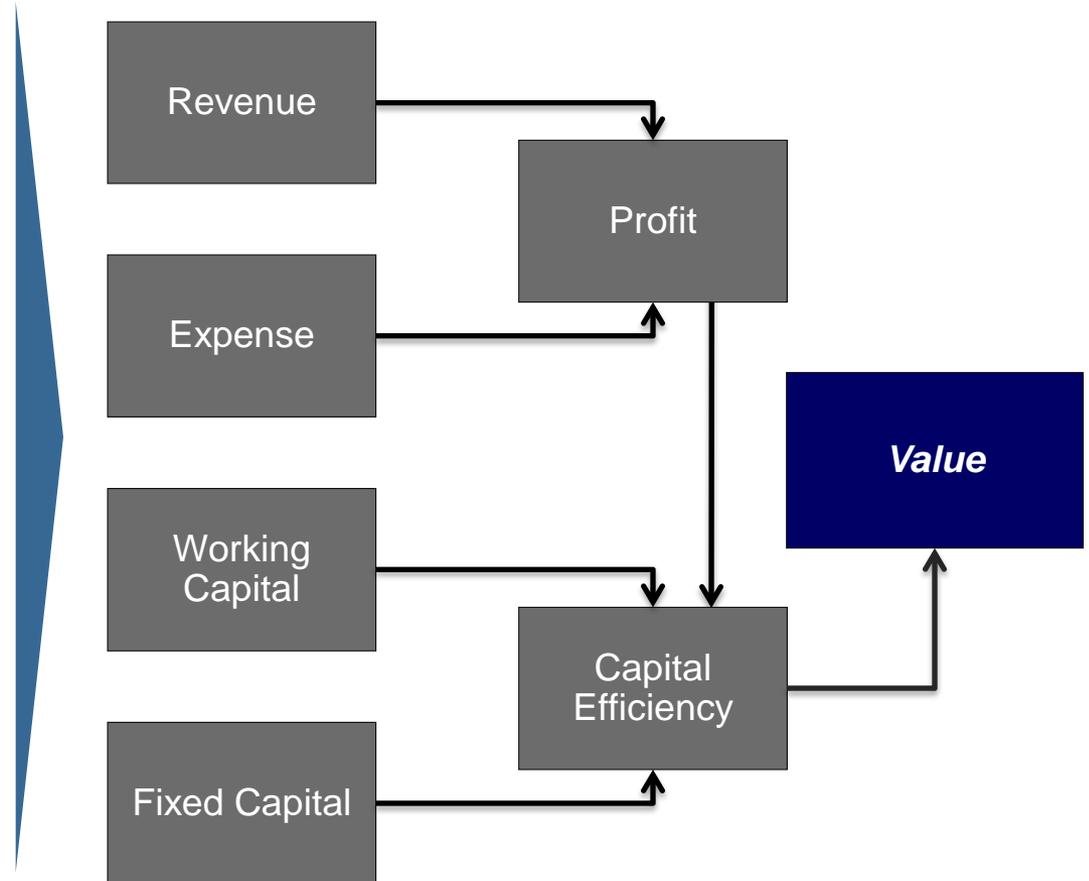
SUPPLY CHAIN COMPLEXITY SIMPLIFIED USING SCOR FRAMEWORK

Supply Chain

What is a Supply Chain?

Supplier processes

Product/Portfolio Management

Product Design
DCOR™

Sales & Support
CCOR™

Supply Chain
SCOR ®

Customer processes

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SCOR© Framework
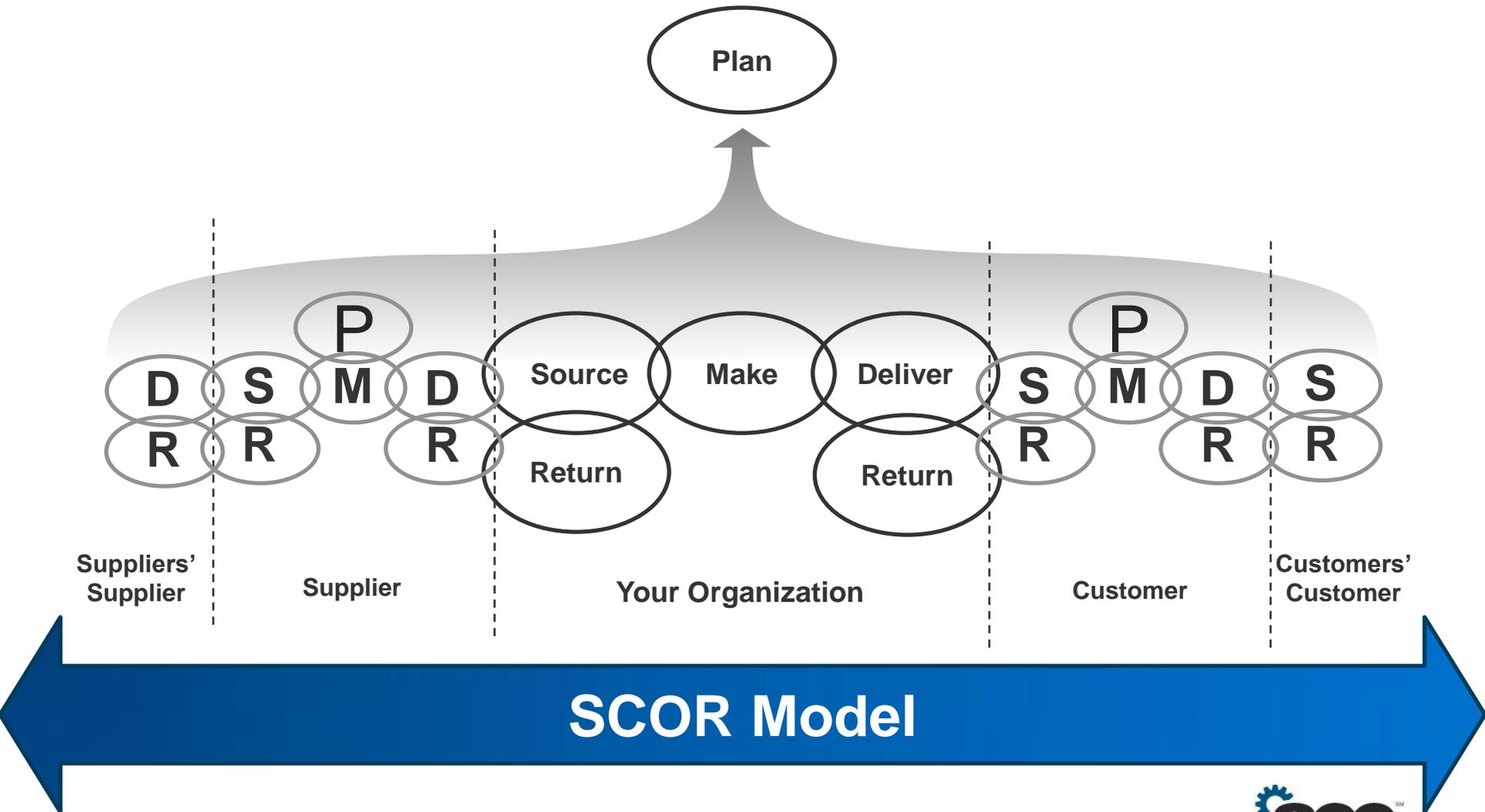
SCOR Hierarchy

Level 1	Level 2	Level 3	Level 4	Level 5
Scope	Configuration	Activity	Workflow	Transactions
Supply-Chain Source	S1 Source Stocked Product	S1.2 Receive Product		EDI XML
Differentiates Business	Differentiates Complexity	Names Tasks	Sequences Steps	Links Transactions
Defines Scope	Differentiates Capabilities	Links, Metrics, Tasks and Practices	Job Details	Details of Automation
Framework Language	Framework Language	Framework Language	Industry or Company Specific Language	Technology Specific Language
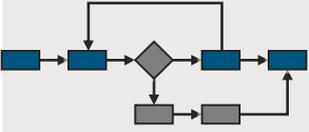
Standard SCOR definitions   Company/Industry definitions

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Supply Chain Architecture Overview

Business Strategy		
Supply Chain Strategy	Supply Chain Configuration	Supply Chain Assets
Supply Chain Performance	Supply Chain Processes	Supply Chain Skills

Standard for Supply Chain: SCOR®

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Layered Management

Business Strategy → **Drives** → Supply Chain Strategy → **Drives** → Supply Chain Network → **Drives** → Supply Chain Process → **Drives** → Supply Chain Resources

Feedback loops run in reverse.

Segment business into supply chains, determine performance

Optimize network for strategic performance requirements

Manage processes towards strategic network goals

Continuously align resources to meet process goals

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THE BUSINESS' MONEY IS IN SUPPLY CHAIN!

WHEN IT COMES TO SUPPLY CHAINS, HAVING TWO IS BETTER THAN ONE, AND THREE OR MORE MAY BE BEST OF ALL!
ISLANDS OF PROFIT IN A SEA OF RED INK BYRNES, J.L.S. SR. LECTURER MIT

Business Strategy

- A product or Service for each Market or Segment
- Supply Chain Definition Matrix is used to define the supply-chains within an enterprise
- Column Generation:
  - › The columns in the matrix are focused on demand e.g. channels or segments or customers
- Row Generation:
  - › The rows in the matrix are focused on supply e.g. business lines or products or locations or suppliers
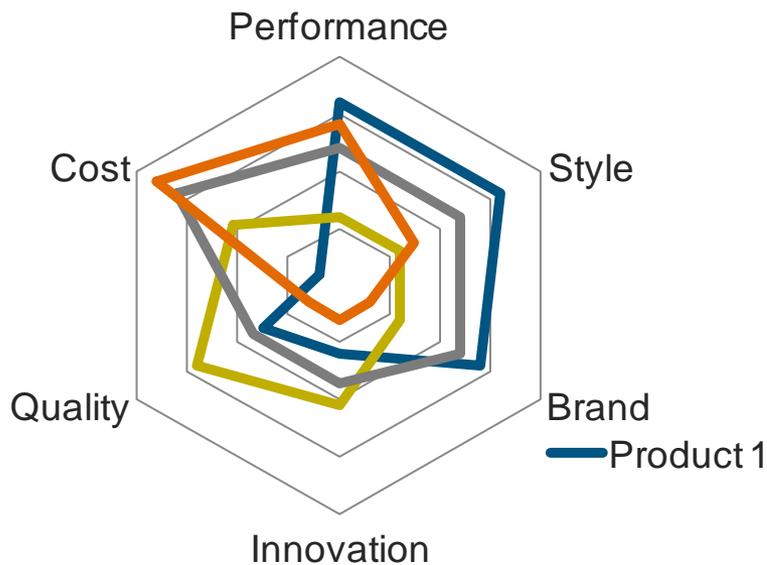
Market → Product ↓	A	B	C	D
1			✔	
2		✔		✔
3		✔		✔
4	✔			✔

Radar chart axes: Performance, Style, Brand, Innovation, Quality, Cost — Product 1

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Supply Chain Strategy

- ## Supply Chain Competitive Attributes

	Attribute	Strategy
Customer	Reliability (RL)	Consistently getting the orders right, product meets quality requirements
	Responsiveness (RS)	The consistent speed of providing products/services to customers
	Agility (AG)	The ability to respond to changes in the market (external influences)
Internal	Cost (CO)	The cost associated with managing and operating the supply chain
	Assets (AM)	The effectiveness in managing the supply chain's assets in support of fulfillment

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Supply Chain Strategy

- Supply Chain Competitive Attributes

	Attribute	Required Performance
Customer	Reliability (RL)	
	Responsiveness (RS)	
	Agility (AG)	
Internal	Cost (CO)	
	Assets (AM)	

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Supply Chain Performance and Governance

	Metric	Actual	P	A	S	Gap
RL	Perfect Order Fulfillment	82	74	81	88	6
RS	Order Fulfillment Cycle Time	6	10	6	3	--
AG	Flexibility	46	60	45	29	1
CO	SC Management Cost	5.1	9.5	6.7	3.9	--
AM	Cash-to-Cash Cycle Time	83	98	64	30	--

	Attribute	Required Performance
Customer	Reliability (RL)	S
Customer	Responsiveness (RS)	A
Customer	Agility (AG)	P
Internal	Cost (CO)	P
Internal	Assets (AM)	A

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Supply Chain Performance and Diagnosis

- Diagnostic metric relationships enable root cause analysis

Metric	Level
Perfect Order Fulfillment	1
└> On-time	2
└> In-Full	2
└> Correct Items	3
└> Correct Quantities	3
└> Perfect Documentation	2
└> Initial Quality	2

Result: The Geographic Map

HQ
sP1, sP2, sD2, sS2

Retail, Inc
sS1, sP2

Battery Supplier
sD1, sP1, sP4

Drive Supplier
sD1, sP1, sP4

MP3 Factory
sP3, sS1, sM1, sD1

Question: No flow from HQ; Why?

Supply Chain Processes

- ## Work and Information Flows

C.O. = Customer Order, Inv. = Inventory,
P.O. = Purchase Order, Prod. = Product
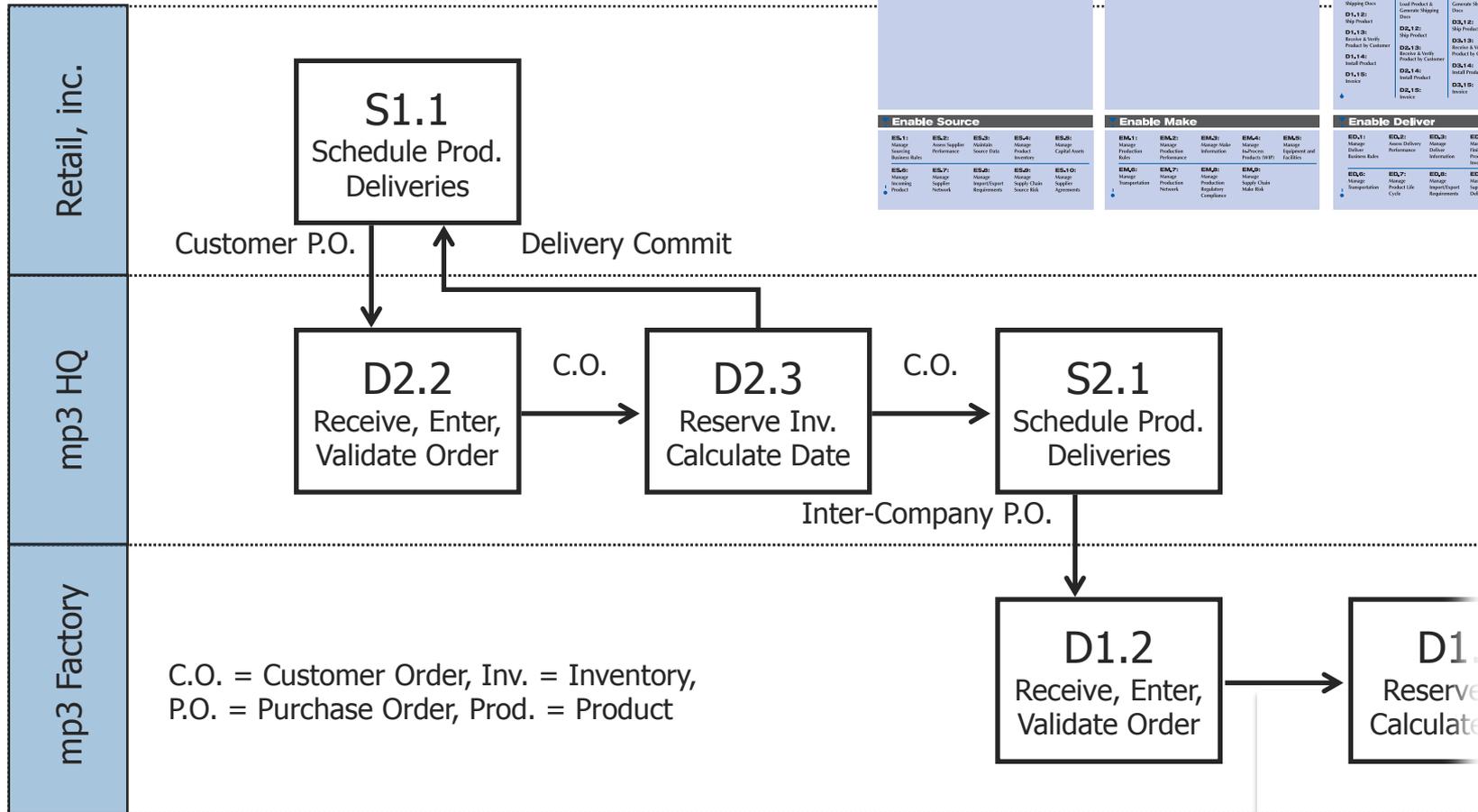
Example Value Stream Map
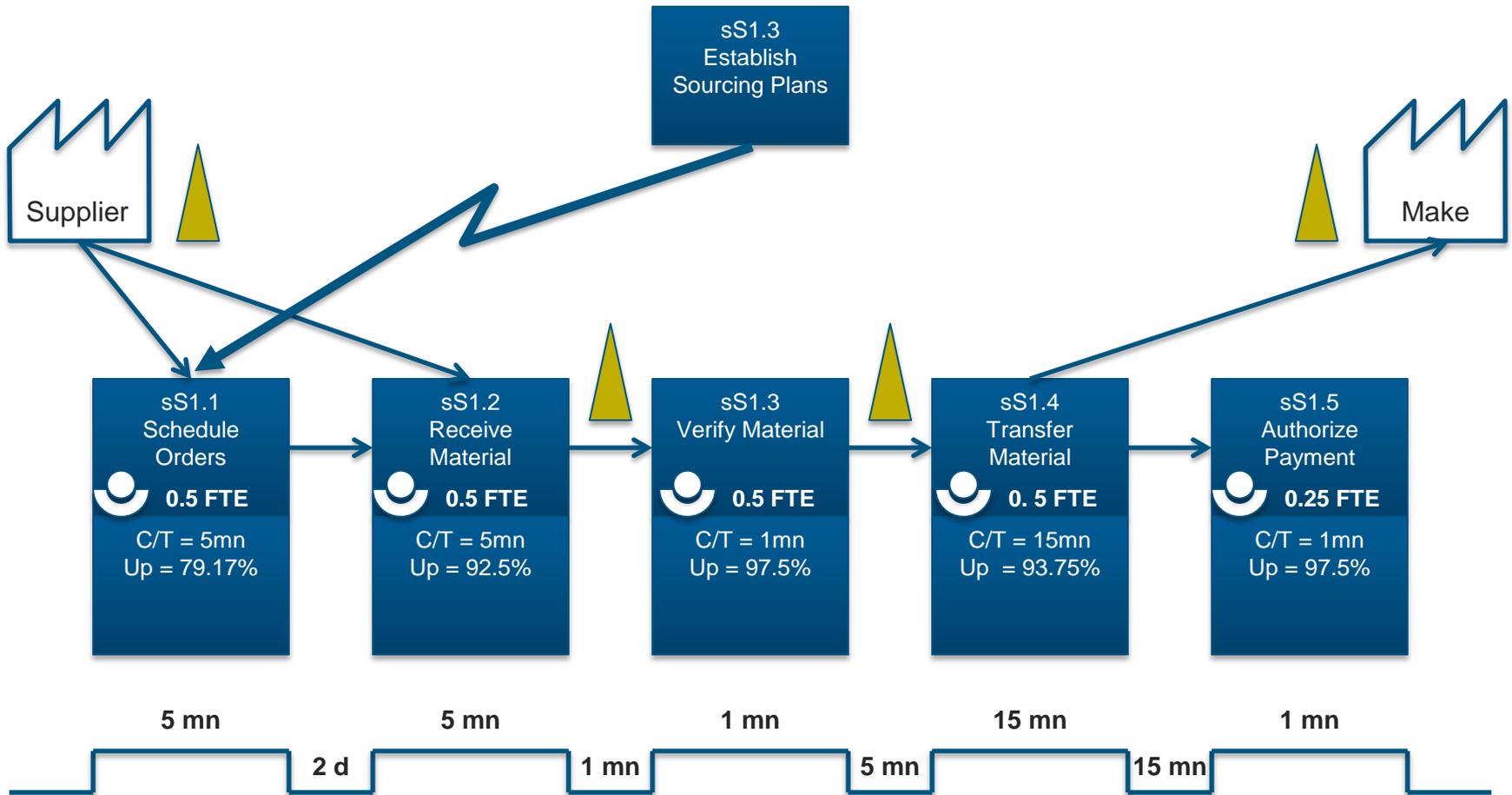
Example PCE Analysis
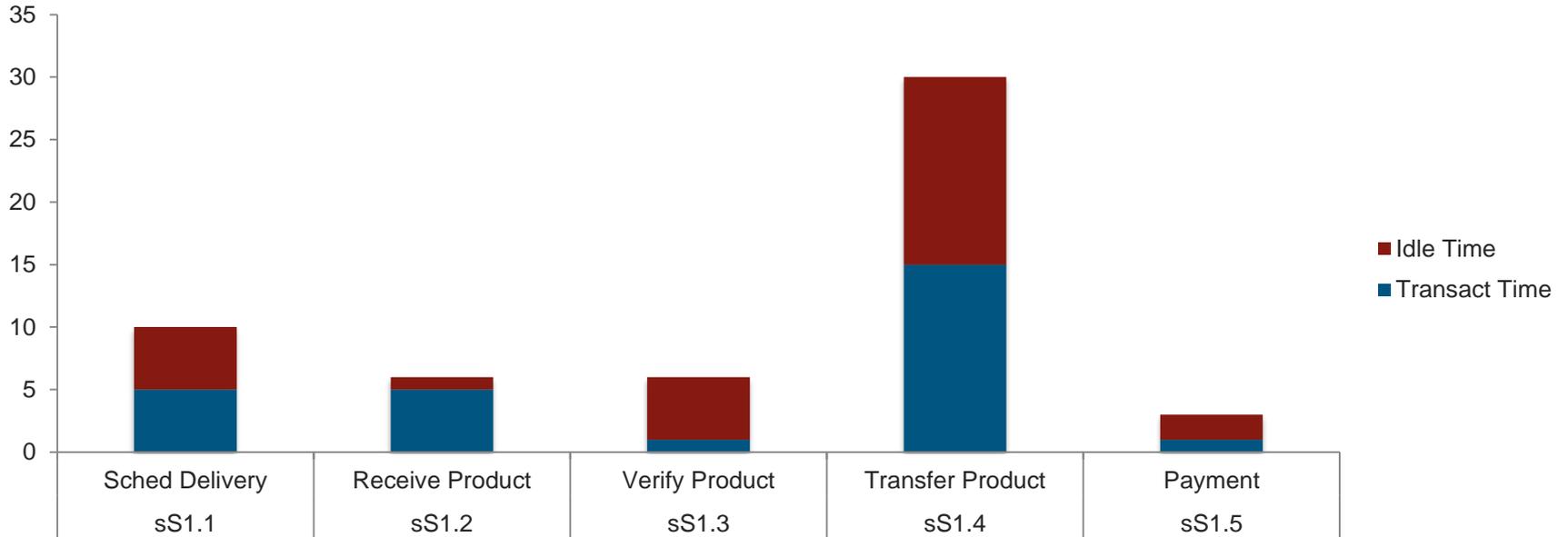
		Transact Time	Idle Time	Transact per Hour	FTE	Rework/Day	PCE	Yield	Waste
sS1.1	Sched Delivery	5	5	3	0.5	5	50.00%	79.17%	20.83%
sS1.2	Receive Product	5	1	5	0.5	3	83.33%	92.50%	7.50%
sS1.3	Verify Product	1	5	5	0.5	1	16.67%	97.50%	2.50%
sS1.4	Transfer Product	15	15	2	1	1	50.00%	93.75%	6.25%
sS1.5	Payment	1	2	5	0.25	1	33.33%	97.50%	2.50%

SCOR ROADMAP PROVIDES RAPID TURNAROUND

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The 16-Week SCOR Program

Level 1

Level 2

Level 3

Level 4

and deploy

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SCOR IMPROVEMENT AREAS AND POTENTIAL VALUE

Typical Potential Improvements[1]

Area	Improvement
Raw materials purchase cost	25%
Cost of Distribution	35%
Total resource deployed	50%
Manufacturing space	50%
Investment in Tooling	50%
Order cycle time	60%
New product development cycle	60%
Inventory	70%
Paperwork and Documentation	80%
Quality Defects	100%

[1]Hughes & Michels (1998) *Transform your supply chain. Releasing value in business.* London, UK

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Comparative Data[1]

Improvement Area	Range
Delivery performance	16% - 28%
Inventory Cost Reduction	25% - 60%
Reduction in order fulfillment cycle time	30% - 50%
Improvement to forecast accuracy	25% - 80%
Increase in overall productivity	10% - 16%
Lower supply chain costs	25% - 50%
Improvement of fill rates	20% - 30%
Improved capacity realization	10% - 20%

[1]Stephens (2000) *1997 Comparative Study* Pittsburg, USA

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SCM Asset Returns: Superior Valuation

NAME		LAST TRADE	DAY CHANGE	2003-2007 GROWTH	TIME
SCOR Companies Index	(SCOR)	2214.31	29.58	59.63 %	4:00pm ET
Dow Jones Industrial Average Index	(DJI)	10424.62	102.32	21.19 %	4:02pm ET
Standard & Poors 500 Index	(S&P)	1102.66	8.99	21.35 %	5:00pm ET

- Comparison of Fortune-1000 Council member company share price aggregate growth from 2003 – present to S&P 500 and DOW indices.
- Growth inflected after 2 years, and the spread between SCOR index companies and other industrials has grown to almost 30 points.
- Growth is increasing exponentially: Compound interest on SC performance.
- Correlates SCC Membership/SCOR investments with Shareholder value.
- Same pattern evident in FTSE-100, DAX, NIKKEI and other indices.

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About Supply Chain Council

- SCC is an independent, **not-for-profit, trade** association

- **Membership** open to all **companies** and **organizations**

- Founded in 1996

- **Regional** representation (chapters) **worldwide**: North America, Europe, Japan, Southern Africa, Latin America, Australia/New Zealand, Southeast Asia, Greater China, and Middle East

- **Focus on research, application and advancement and advancing state-of-the-art** supply chain management systems and practices

- **Developer** and **endorser** of the Supply Chain Operations Reference (SCOR®) as a cross-industry standard for supply chain management

- Offers **Training**, **Certification**, Benchmarking, Research, Team Development, Coaching, and Cross-standard Integration focused on the SCOR® framework

- Approaching 1000 Association Members within global chapters

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Sample of Industry Membership Scope

For More Information

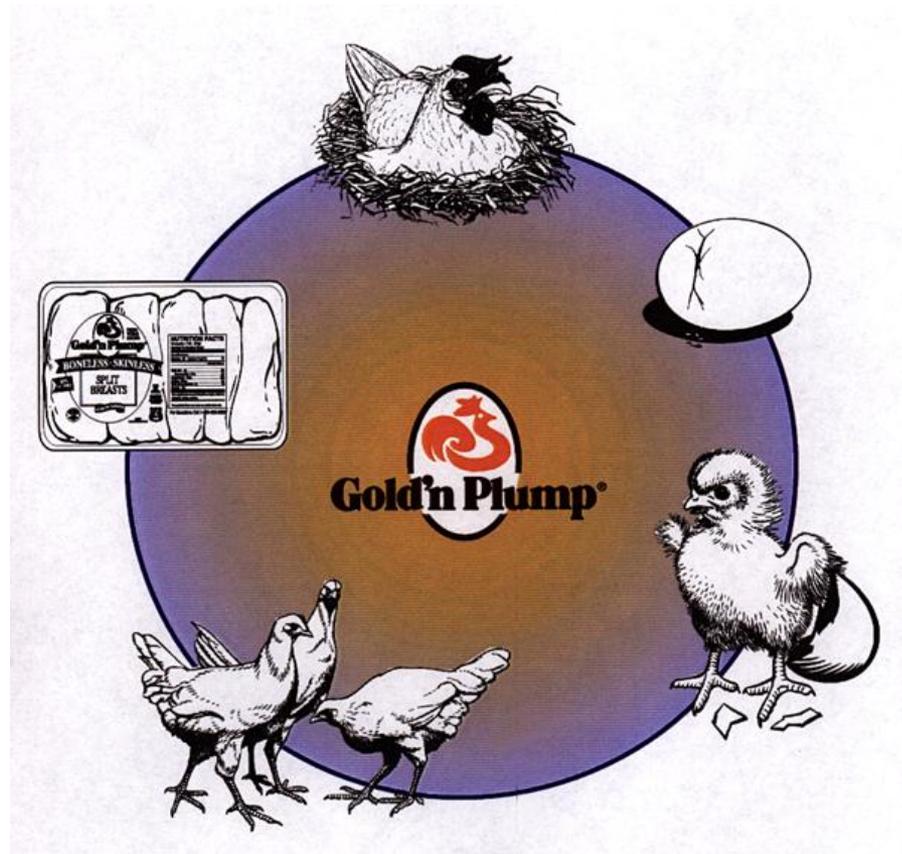**W: WWW.SUPPLY-CHAIN.ORG**

E: INFO@SUPPLY-CHAIN.ORG

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Value Proposition and
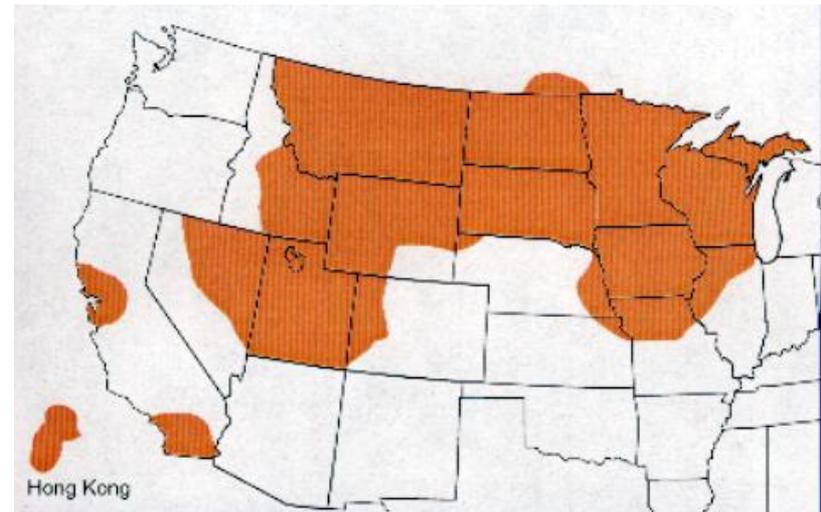Supply Chain Optimization

Who Is Gold'n Plump Poultry?

A provider of **PREMIUM BRANDED**, **VALUE-ADDED** poultry products and related services.

OUR MARKET AREA

- Domestic distribution spans 17 states in central and western U.S.

- International distribution includes Canada, Hong Kong, China, Singapore and Russia
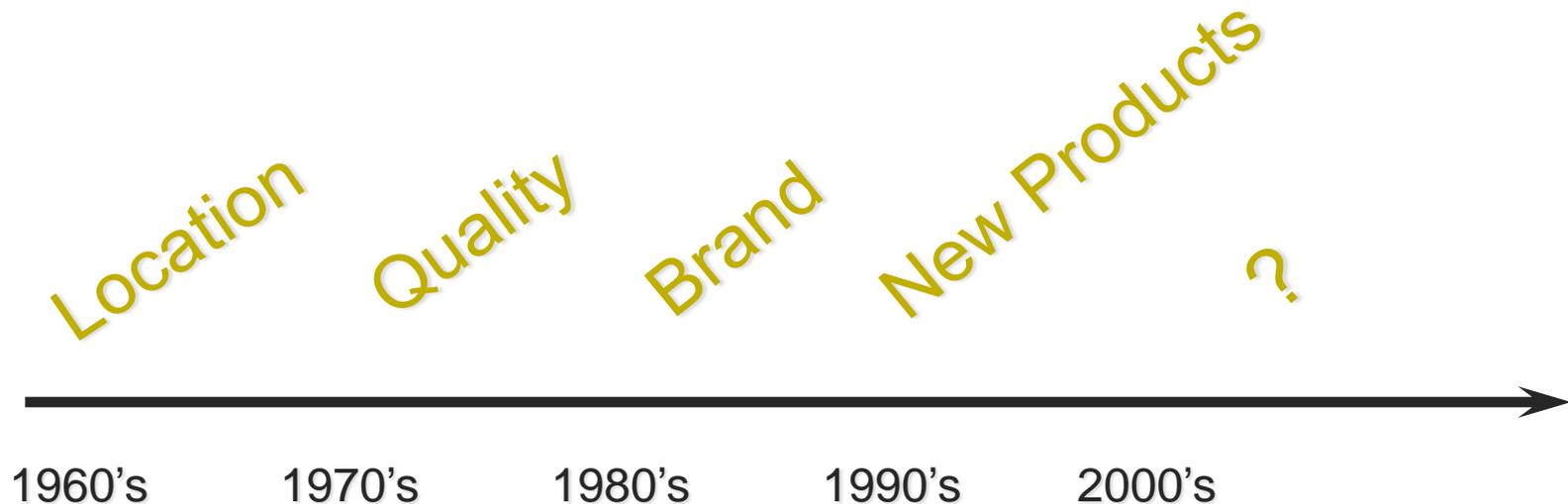

Hong Kong

- GNP will be a market leader in providing innovative solutions to our customer's needs. Our product and service solutions will add value at the lowest possible cost, generating the most profitable returns.
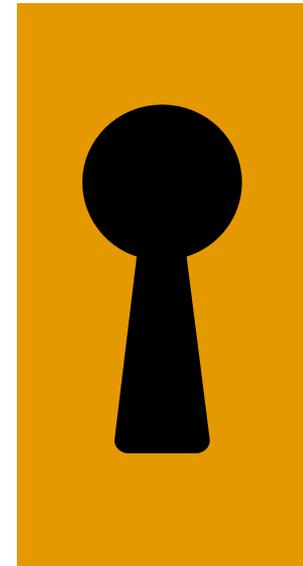
Collaborative Solutions?

The winners in the future will not be the best *manufacturer* or best *distributor* or the best *retailer*.

The winners will be the best <u>combination</u> of manufacturer, distributor and retailer that most efficiently provides the highest value to the consumer.

Turnkey Solutions

As a manufacturer we must:

- Manage inventories to plan
- Provide perfect order fill rate
- Forecast base and feature business
- Reduce slots need for inventory
- Provide flexible pricing options--by geographic zone, by store, by day, by hour
- Automatic and continuous inventory replenishment
- Cut order lead time
- Minimize shipping errors
- Cut distribution costs
- Communicate in real time

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Collaborative **Planning**, **Forecasting** and **Replenishment** Systems

◄ **Timely, Accurate, Paperless Information Flow** ►

Gold'n Plump | Distributor | Retail Store | Consumer Household
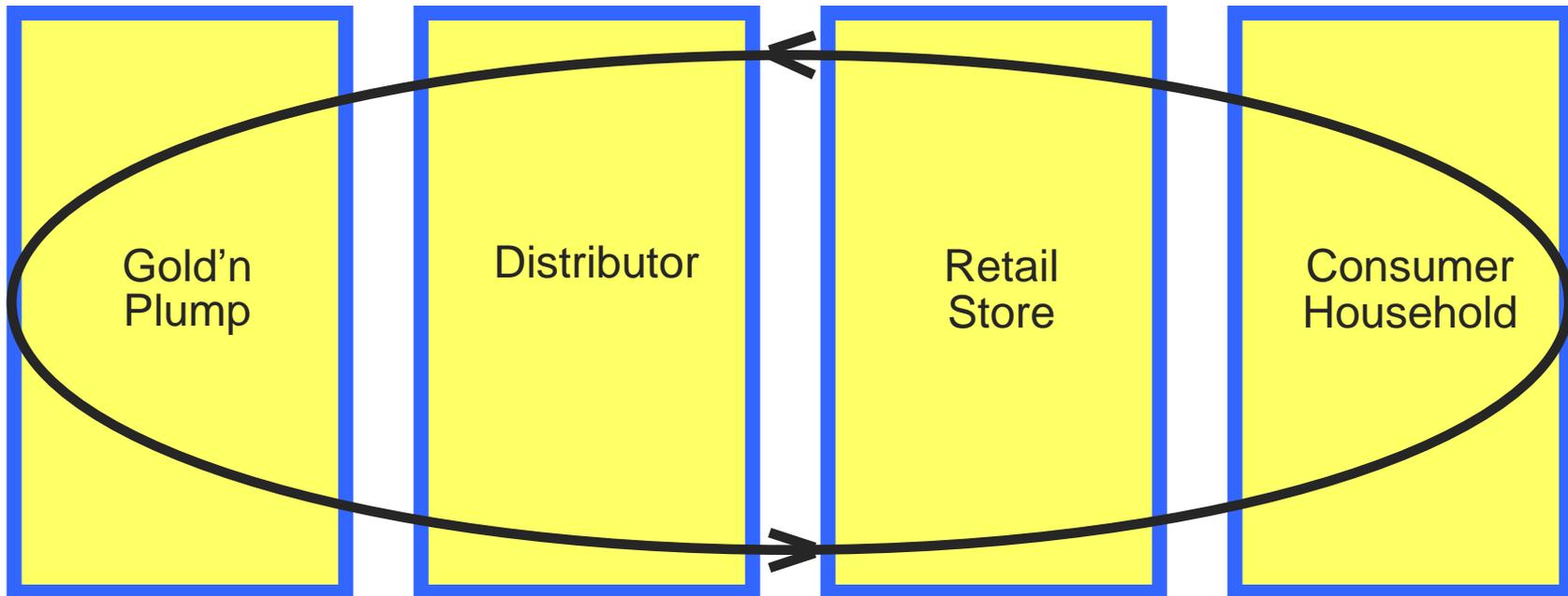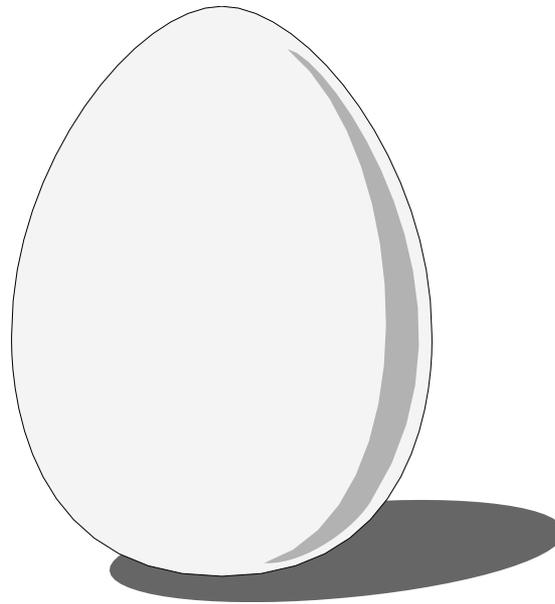
Smooth, Continual Product Flow Matched to Consumption ►

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Then The Question Was...

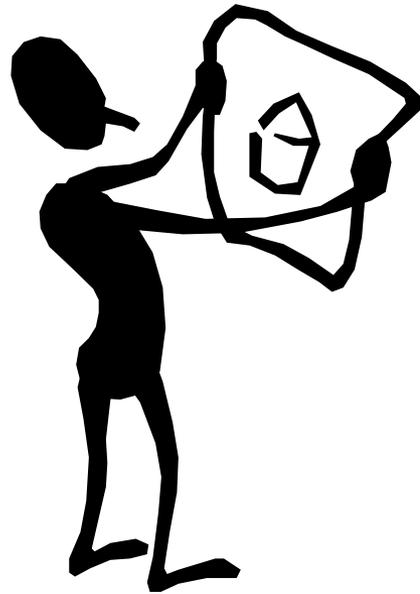*What tools* are needed to crack this egg?

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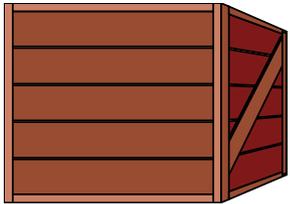# In the Tool Box we had …

…fixed weight scannable products, but...

...the Tool Box needed
a blueprint and a construction
manager.

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SCOR

## Founded on Four Distinct Management Processes
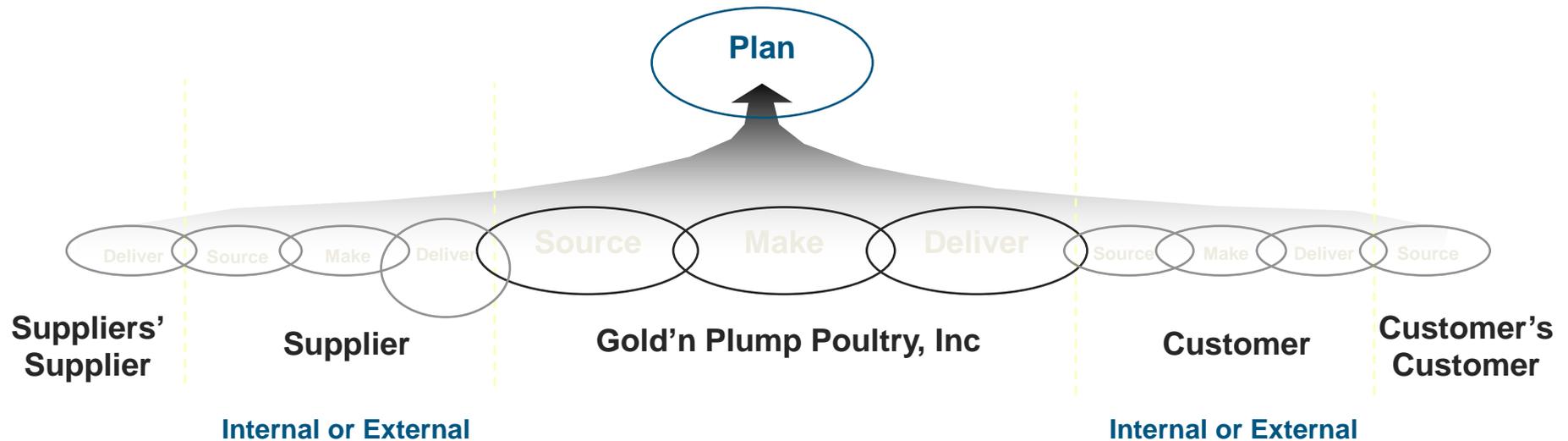
SCOR Process Reference Model

Plan Focus

- Familiarization with SCOR
- Configure our supply chain
- Link business objectives and supply chain design/performance
- Define value and margin enhancement goals for customer and Gold'n Plump Poultry
- Develop and implement internal sales order processing portion of the SCOR model

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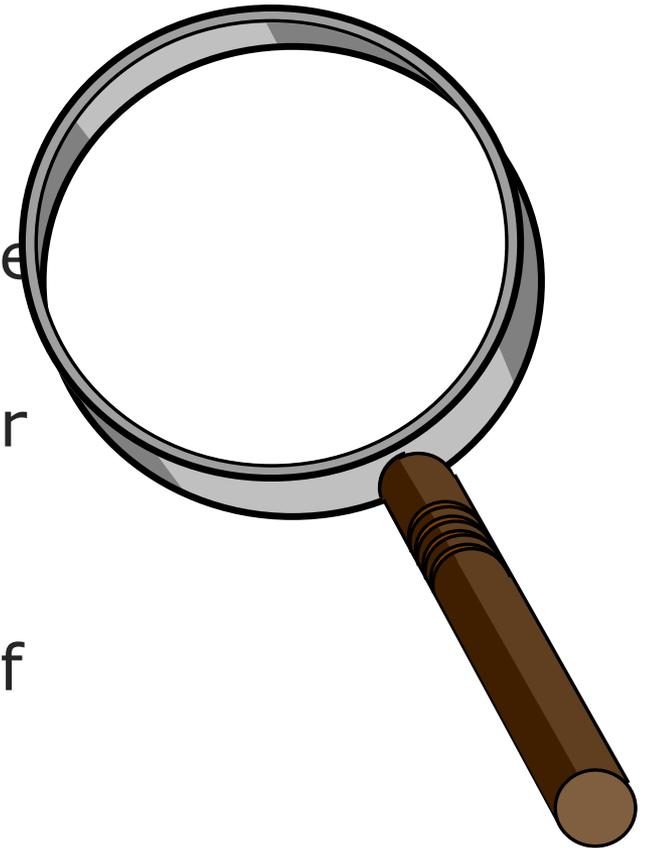
Project Roadmap

1 Analyze Basis of Competition

Operations Strategy
- Supply Chain Scope
- Performance Metrics
- Supply Chain SCORcard
- Competitive Performance Requirements
- SCORcard Gap Analysis
- Business Case

SCOR Level 1

2 Configure Supply-Chain

Material Flow
- AS IS Geographic Map
- Disconnects
- Design Specifications
- TO BE Geographic Map
- AS IS Process Flow
- TO BE Process Flow

SCOR Level 2

3 Align Performance Levels, Practices, and Systems

Information and Work Flow
- AS IS Work/Information Map
- Disconnects
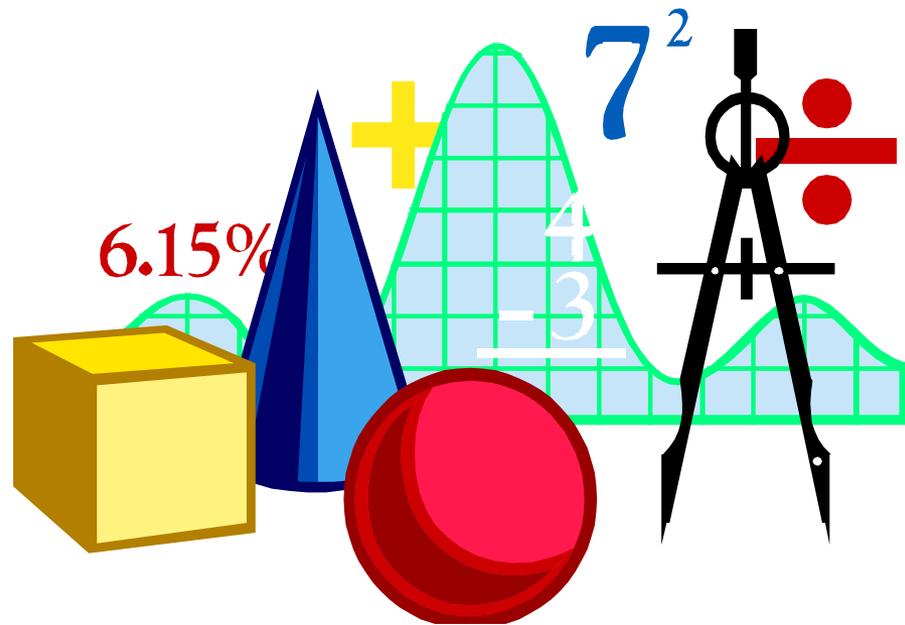- Design Specifications
- TO BE Work/Information Map

SCOR Level 3

4 Implement Supply-Chain Changes
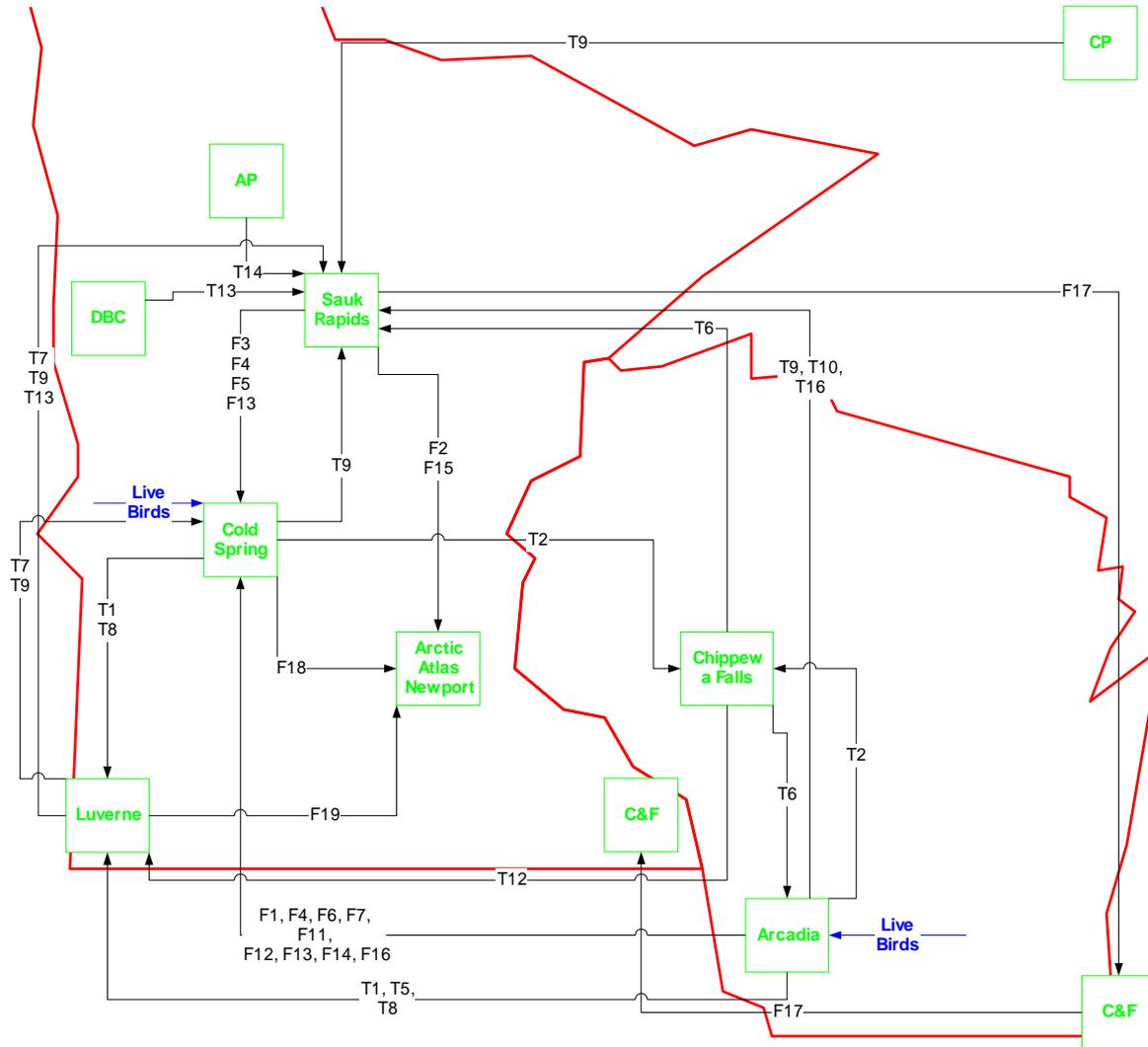
Project Implementation
- Project Plan
- Develop/Test
- Technology Selection
- Implementation

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Process Mapping

- Geographic Map
- Material Flow
- Process Planning
- Demand Planning

AS IS Geographic Map 8/26/99

Gold'n Plump Supply Chain Planning Process Map

Executive

Leadership Review

Updated Annual Business Plan w/ action plan

Sales

Process Inquiry & Quote → Receive, Enter, & Validate Order → Reserve Inventory & Determine Delivery Date

Strategy, Goals, Annual Business Plan

Marketing

Daily Orders

Plan Supply Chain (P1)
30-90 Aggregate Demand Supply Balance

Planning

Plan Source (P2)
0-30 Material Requirements Resources Balance

Plan Make (P3)
0-30 Production Requirements Resources Balance

Plan Deliver (P4)
0-30 Fulfillment Requirments Resources Balance

30-90 demand forecast & supply plan

0-30 day Outsource Needs

0-30 day Inventory Plan

0-30 day Expected Receipts

Actual Order History

Logistics

Consolidate Orders | Plan & Build Loads | Route Shipments | Select Carriers & Rate Shipments | Receive Product | Pick Product | Load Vehicle, Generate Ship Docs & Ship | Invoice & Receive Payment

0-30 day Master Production Schedule

Manufacturing

Issue Material

0-7 day Schedule Manufacturing Activ | Receive & Verify Material | Transfer Material | Manufactcure & Test | Package | Stage Product | Release Product to Deliver

0-30 Material Requirements Plan

Live

0-7 day Schedule Material Deliveries

Supplier

0-7 day Schedule Material Deliveries

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Timelines

Project Start:

September '99

Right Team
Right Focus
Right Priority
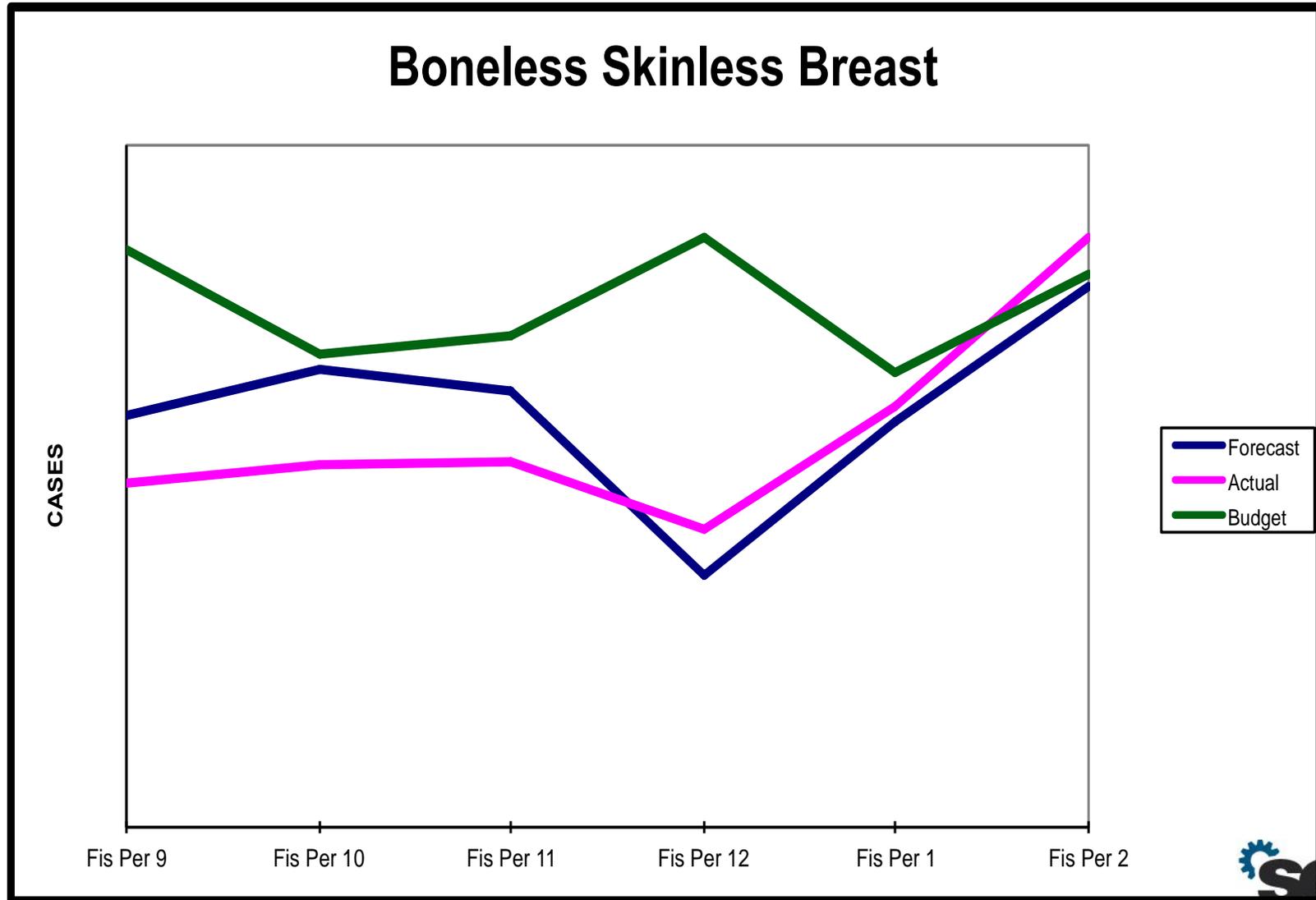Right Tools

Project Finish:

November '00

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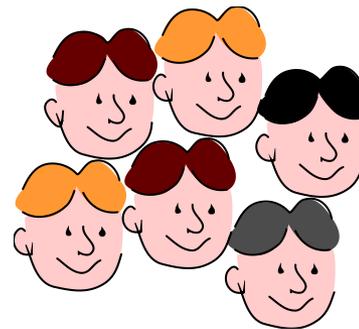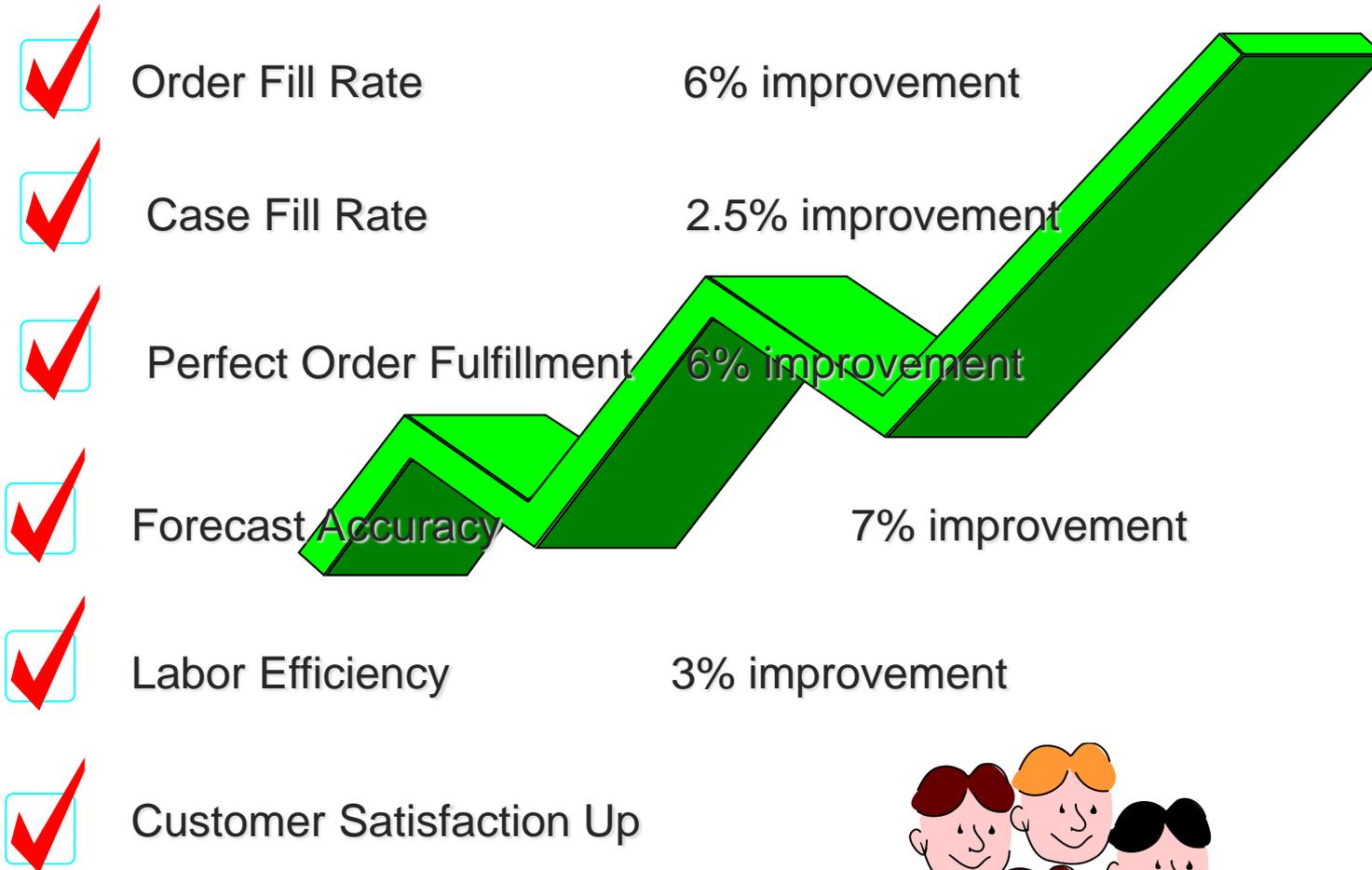
Implemented Changes

- Over 75% of planning steps were new.

- Implemented JBA manufacturing system.

- Developed/implemented new organizational structure to support demand and supply planning. (Two new job requirements.)

- Plants went to "make to schedule" and were measured to attainment.

- Sales and marketing took responsibility for demand planning.

- Revamped weekly tactics meeting to follow SCOR metrics.

- Established and maintained an integrated promotional calendar.

- Unit and financial summary replaces the current financial estimation process.

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Graphic Results

Boneless Skinless Breast

CASES

Legend:
- Forecast
- Actual
- Budget

Fis Per 9 | Fis Per 10 | Fis Per 11 | Fis Per 12 | Fis Per 1 | Fis Per 2

Results Since December '99

✓ Order Fill Rate — 6% improvement

✓ Case Fill Rate — 2.5% improvement

✓ Perfect Order Fulfillment — 6% improvement

✓ Forecast Accuracy — 7% improvement

✓ Labor Efficiency — 3% improvement

✓ Customer Satisfaction Up

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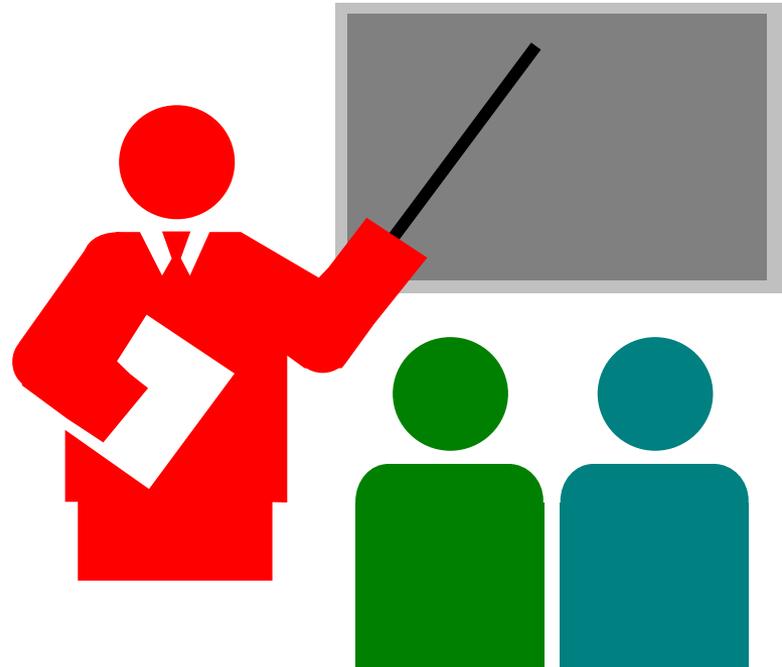supply chain council

Well on Our Way to Our Efficiency Goals With Supply Chain Optimization?

Total Margin Improvement $4,300,000
    Freight
    Labor Efficiency
    Discounts

What Went Right?

- Clear vision
- Company wide commitment--no organizational barriers
- Defined supply chain metrics
- Efficient information systems

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