

**THE INSTITUTE OF COST AND WORKS
ACCOUNTANTS OF INDIA
HYDERABAD**

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**INTERNATIONAL SEMINAR
ON
LEAN ENTERPRISE & ACCOUNTING**

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Deloitte, India

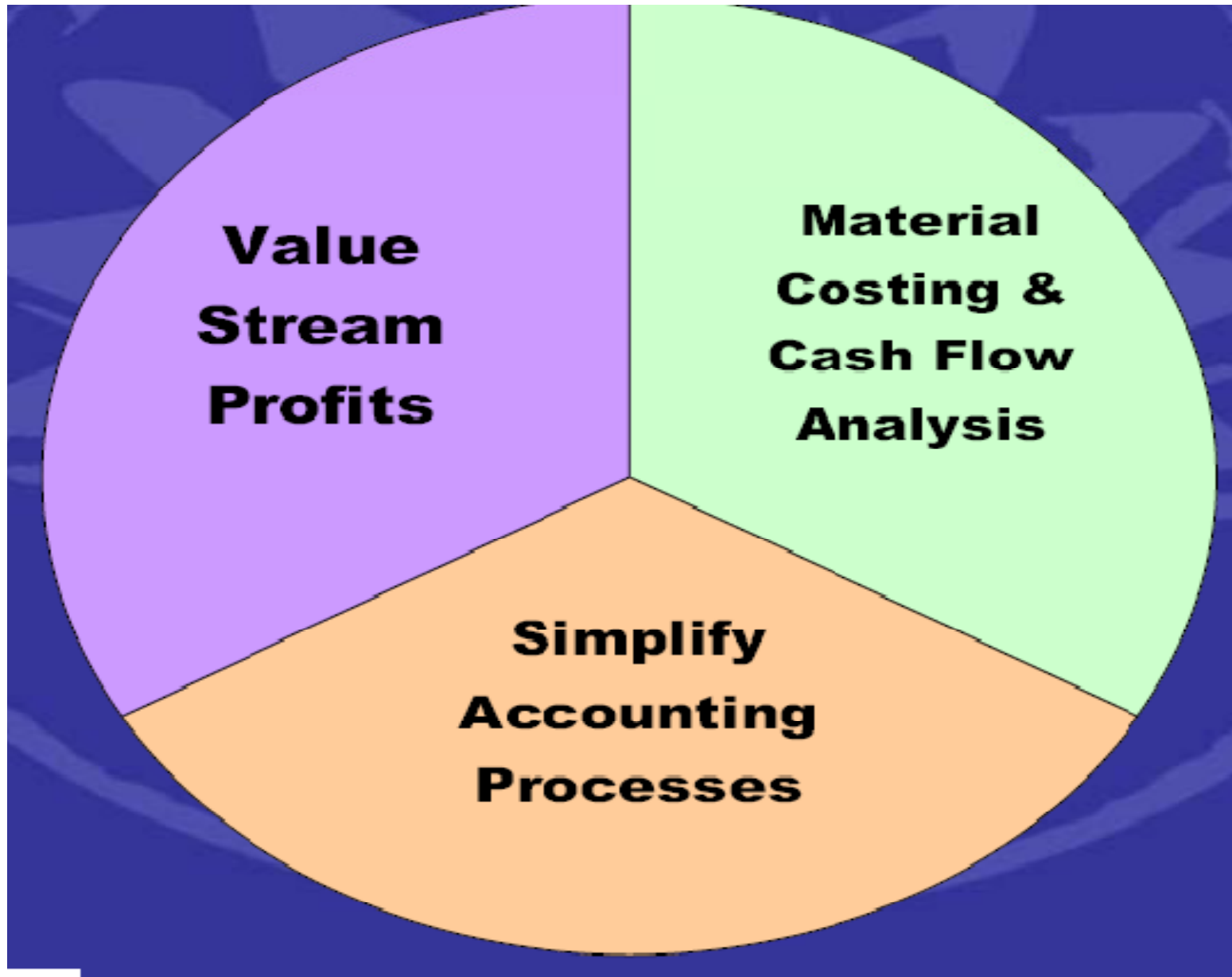
Why Lean Accounting?

- ❑ Companies embarking on Lean Manufacturing soon find that their accounting processes and management methods, at best, are unsuitable and usually very misleading to lean changes the company is making.
- ❑ Traditional performance measurements motivate employees to take anti-lean actions: building inventory, running large batches, buying large quantities of raw materiel etc.

Lean Accounting contd...

❑ What is Lean Accounting?

- Lean focuses on processes that creates value and pursues the superior goal of perfect process flow.
- Lean Accounting is taking the lean implementation one step further, implementing the lean concept in every day aspect of accounting, measurement, controlling and management methods in companies that already has converted to Lean Production methods. Taking lean one step further allows for better decision making by providing understandable, accurate and actionable cost & profitability information.



Vision for Lean Accounting

- ❑ Provide accurate, timely, and understandable information to motivate the lean transformation throughout the organization, and for decision-making leading to increased customer value, growth, profitability, and cash flow.
- ❑ Use lean tools to eliminate waste from the accounting processes while maintaining thorough financial control.
- ❑ Fully comply with generally accepted accounting principles (GAAP), external reporting regulations, and internal reporting requirements.
- ❑ Support the lean culture by motivating investment in people, providing information that is relevant and actionable, and empowering continuous improvement at every level of the organization.

Representative Financial Close Value Stream

Enterprise Perspective

LEAN
(Simplicity and Speed)

Cutoff
Subsystem
Transactions
to GL

Process
Journal
Entries

Validation &
Analytical
Review

Review and
Internal
Disclosure

External
Disclosure

- ❑ Lean Accounting is more than a set of tools relating to measurement, capacity usage, value, and continuous improvement
 - Together these tools become a lean business management system that is radically different from traditional management.
 - It enables companies to make more money by identifying the potential financial benefits of lean improvements and developing strategies to realize that profit. Lean Accounting motivates long term lean improvements through lean focused information and measurements.
 - Lean Performance Measures are the cornerstone of visual management and control for lean production cells, the value streams and the overall plant or company.

- Similar performance measurements are used at the nonproduction “cells” and processes.
 - These performance measurements are designed to motivate thoroughly lean behaviour and to drive continuous improvement at every level of the organization.
- ❑ Lessons learned are, that when an organization matures with Lean Accounting they are able to systematically eliminate 1/3 of all transactions, reports, reconciliations and meetings that go with them. As the processes are brought under control, and the effect of the Lean implementation is visual, new initiatives becomes part of a normal routine. Continuous improvement is one of the cornerstones of Lean Accounting.

Critical Success Factors – Lean Accounting

- ❑ Implementing Lean Accounting requires a **maturity path**. We recommend a prudent approach, taking account of where the company is with lean manufacturing (and other lean programs).
- ❑ **Step-by-step**. as the processes are brought under control, through lean thinking, can the wasteful, misleading, and actively harmful part of traditional accounting systems be dismantled.

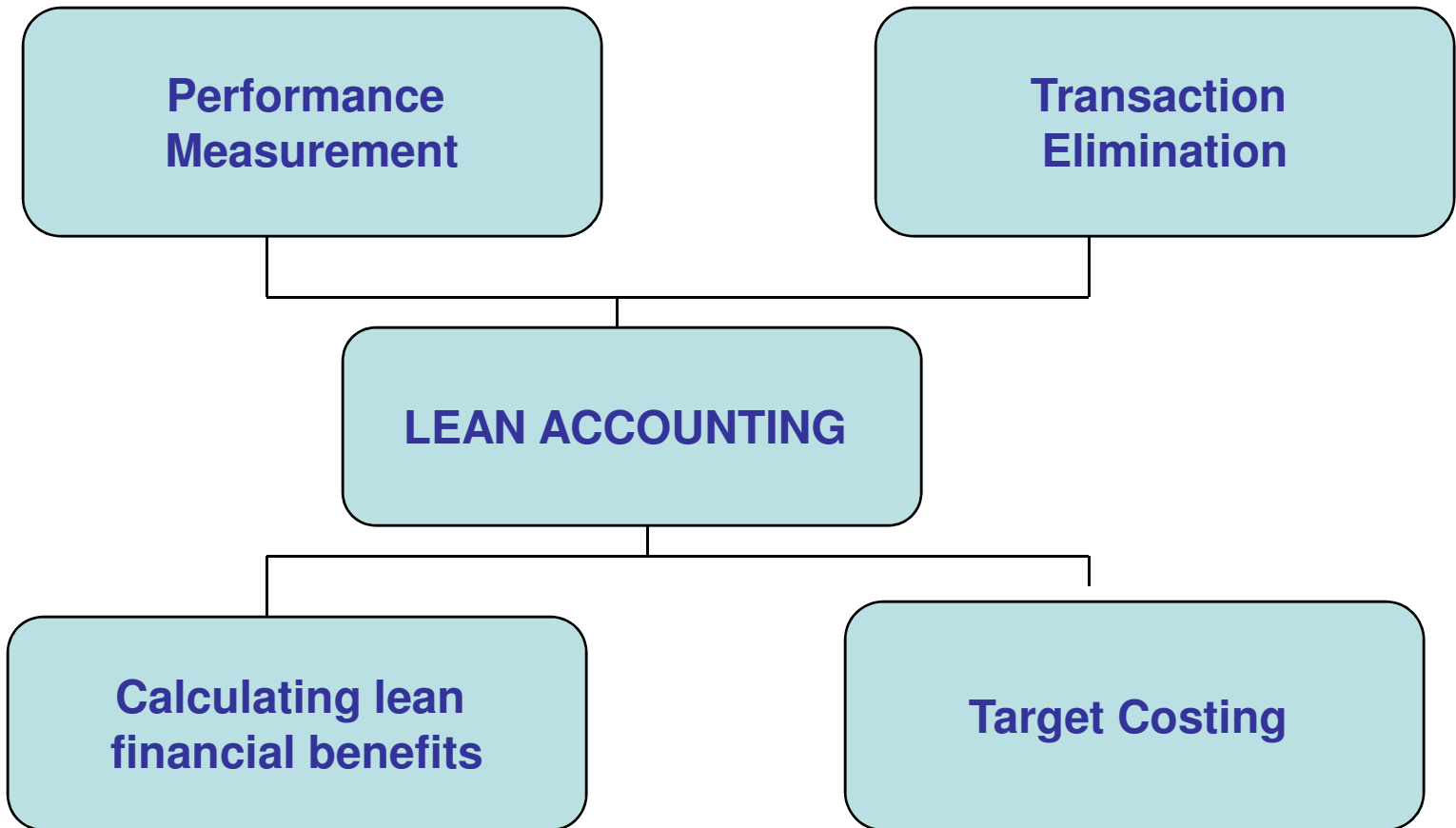
- ❑ Anticipate long term cost reductions. The process of implementing Lean Accounting involves severe changes in the way of thinking, measuring and acting.
- ❑ Define an excess capacity plan. Lean Accounting recognizes that the primary impact of waste elimination is the creation of excess capacity, which should be taken into consideration very early in the process.

TRADITIONAL ACCOUNTING SYSTEMS

- ❑ They are large, complex, wasteful processes requiring huge amounts of non-value work.
- ❑ They provide measurements and reports like labor efficiency and overhead absorption that motivate large batch production and high inventory levels.
- ❑ They have no good way to identify the financial impact of the lean improvements taking place throughout the company. On the contrary, the financial reports will often show that bad things are happening when very good lean change is being made.
- ❑ Very few people in the company understand the reports that emanate from the accounting systems, and yet they are used to make important and far-reaching decisions

Traditional Accounting Systems

- ❑ They use standard product costs which are misleading when making decisions related to quoting, profitability, sourcing, make/buy, product rationalization, and so forth. Almost all companies implementing lean accounting are making poor decisions: turning down highly profitable work, out-sourcing products or components that should be made in house, manufacturing overseas products that can be competitively manufactured here at home, etc.



Principles and Tools

PRINCIPLES	PRACTICES	TOOLS OF LEAN ACCOUNTING
A. Lean & simple Business accounting	1. Continuously eliminate waste from the transactions processes, reports, and other accounting methods	a. Value stream mapping; current & future state b. Kaizen (lean continuous improvement) c. PDCA problem solving
B. Accounting processes that support lean transformation	1. Management control & continuous improvement 2. Cost management 3. Customer & supplier value and cost management	a. Performance Measurement Linkage Chart; linking metrics for cell/process, value streams, plant & corporate reporting to the business strategy, target costs, and lean improvement b. Value stream performance boards containing break-through and continuous improvement projects c. Box scores showing value stream performance d. Value stream costing e. Value stream income statements f. Target costing

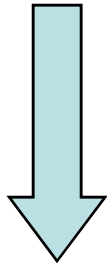
Principles and Tools Contd..

PRINCIPLES	PRACTICE	TOOLS OF LEAN ACCOUNTING
C. Clear & timely communication of information	1. Financial reporting	a. “Plain English” financial statements b. Simple, largely cash-based accounting
	2. Visual reporting of financial & non-financial performance measurements	a. Primary reporting using visual performance boards; division, plant, value stream, cell/process in production, product design, sales/marketing, administration, etc.
	3. Decision-making	a. Incremental cost & profitability analysis using value stream costing and box scores
D. Planning from a lean perspective	1. Planning & budgeting	a. Hoshin policy deployment Sales, Operations & financial planning (SOFP)
	2. Impact of lean improvement	a. Value stream cost and capacity analysis b. Current state & future state value stream maps c. Box scores showing operational, financial, and capacity changes from lean improvement. Plan for financial benefit from the lean changes

Principles and Tools Contd..

PRINCIPLES	PRACTICE	TOOLS OF LEAN ACCOUNTING
D. Planning from a lean perspective	3. Capital Planning	a. Incremental impact of capital expenditure on value stream box-score.
	4. Invest in people	a. Performance measurements tracking continuous improvement participation, employee satisfaction & cross training b. Profit sharing
E. Strengthen Internal accounting control	1. Internal control based on lean operational controls	a. Transaction elimination matrix b. Process maps showing controls and SOX risks
	2. Inventory valuation	a. Simple methods to value inventory without the requirement for perpetual inventory records and product costs can be used when the inventory is low and under visual control

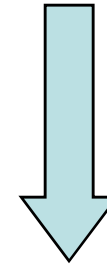
Lean Accounting



Cost World

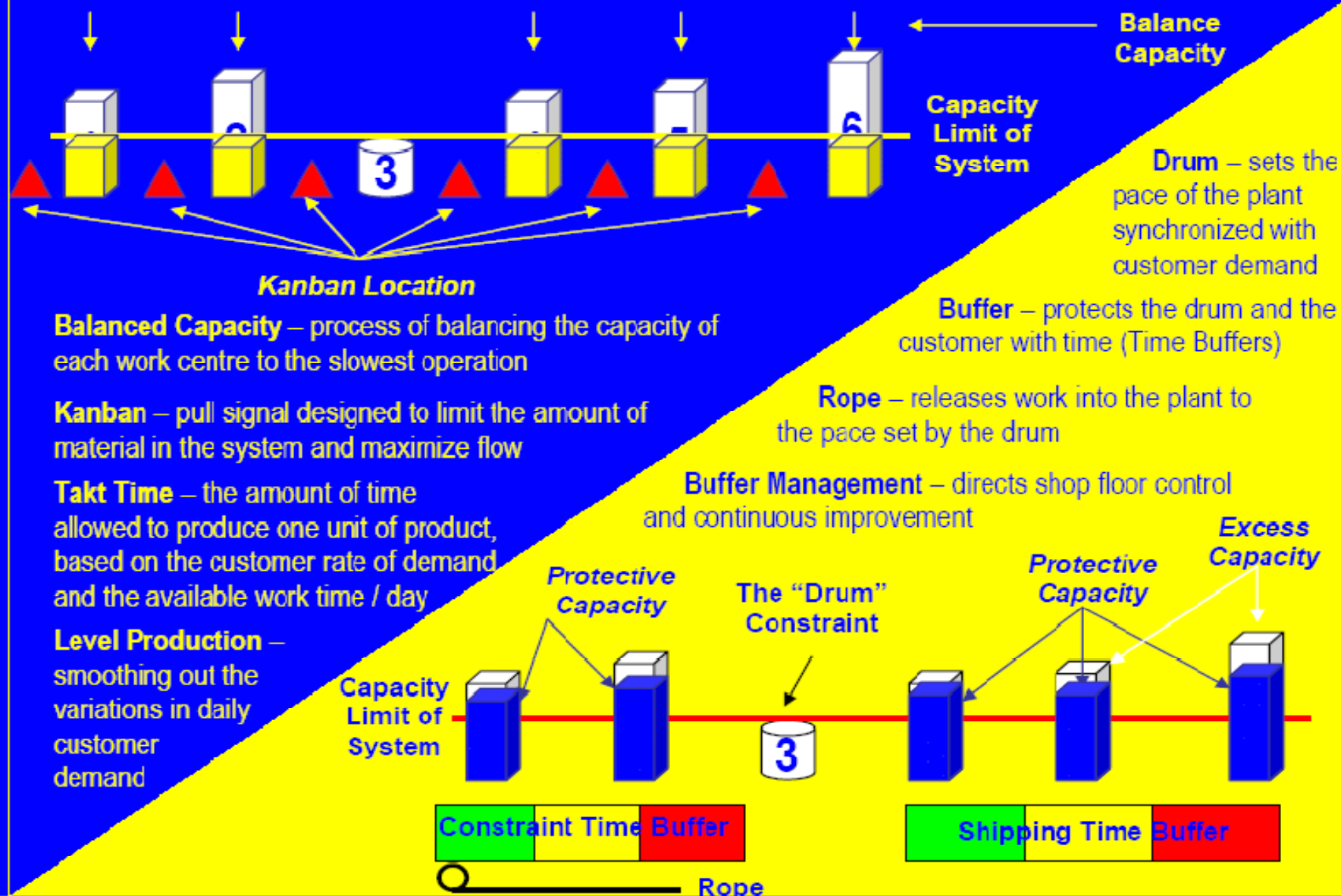
**We want to minimize the
Cost of capacity**

Throughput Accounting



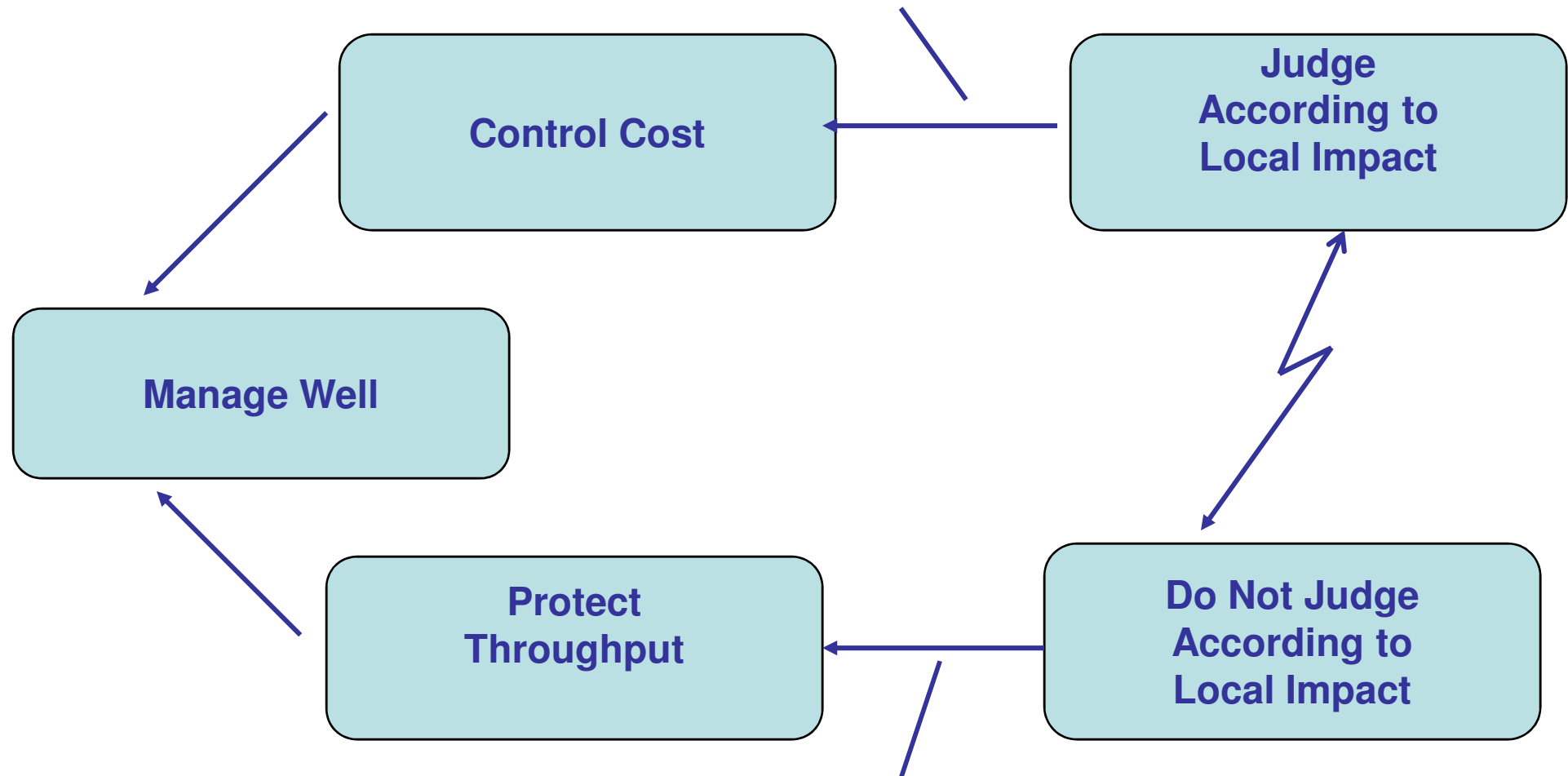
Throughput World

**We want to maximize the
Use of capacity**



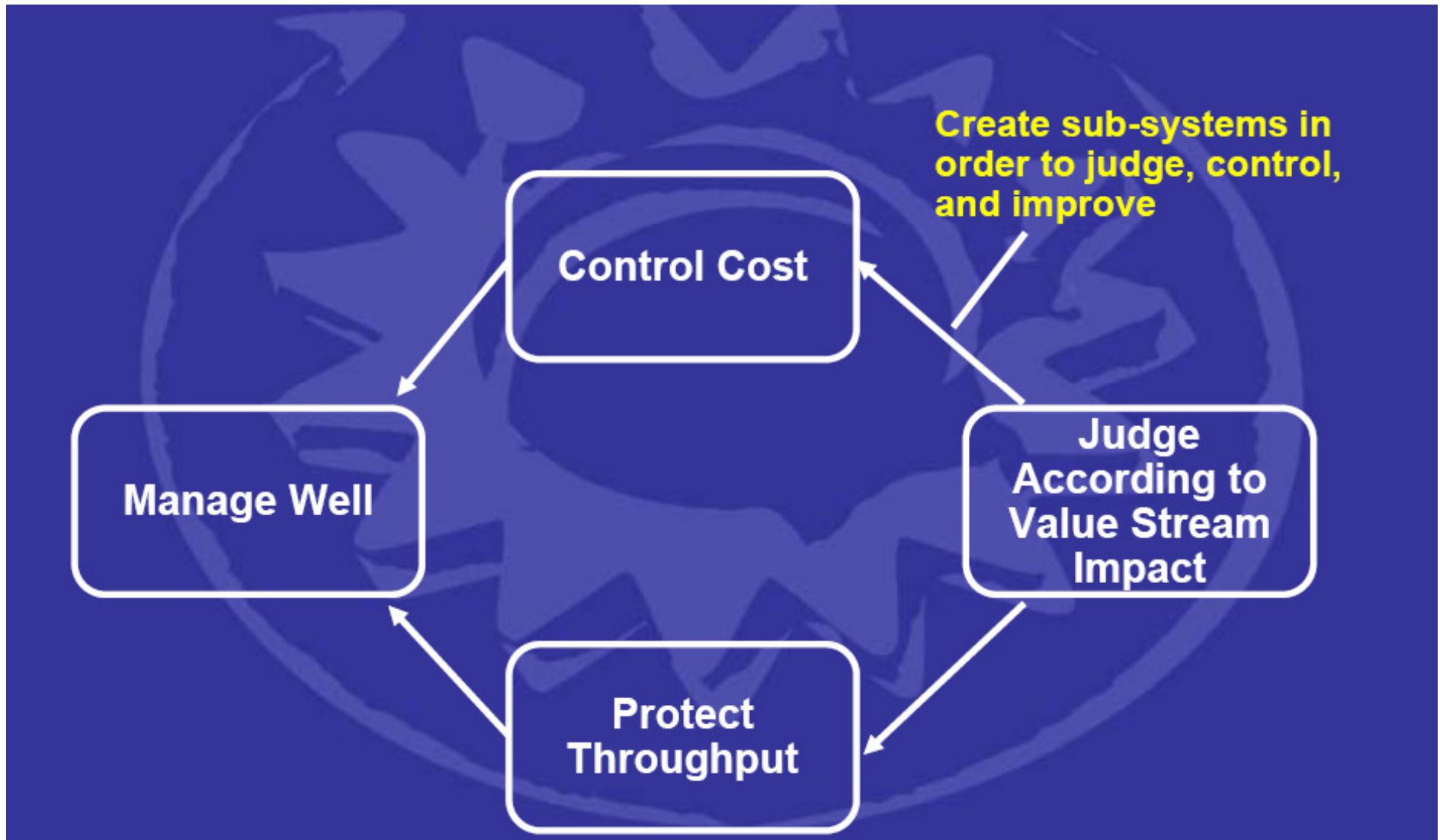
Measurement Conflict

Local impact is equal to the impact on the whole organization



Local impact is NOT equal to the impact on the whole organization

Lean's Attempt to Resolve the Conflict



Value

❑ Value added activity:

- An activity that adds value to the form, fit or function of a product or service, or an activity for which the customer is willing to pay

❑ Non Value added activity:

- Those activities that take time, resources, or occupy space, but do not add value to the product
- Necessary:
 - Inspection; financial analysis
- Unnecessary:
 - Walking; rework; extra handling; searching for tools; fine tuning;
 - unnecessary motion; transportation; setups

Value Streams

- ❑ "...the set of all the specific actions required to bring a specific product through the three critical management tasks of any business:

- ...problem solving,*

- Sales, Design, Engineering

- ...information management,*

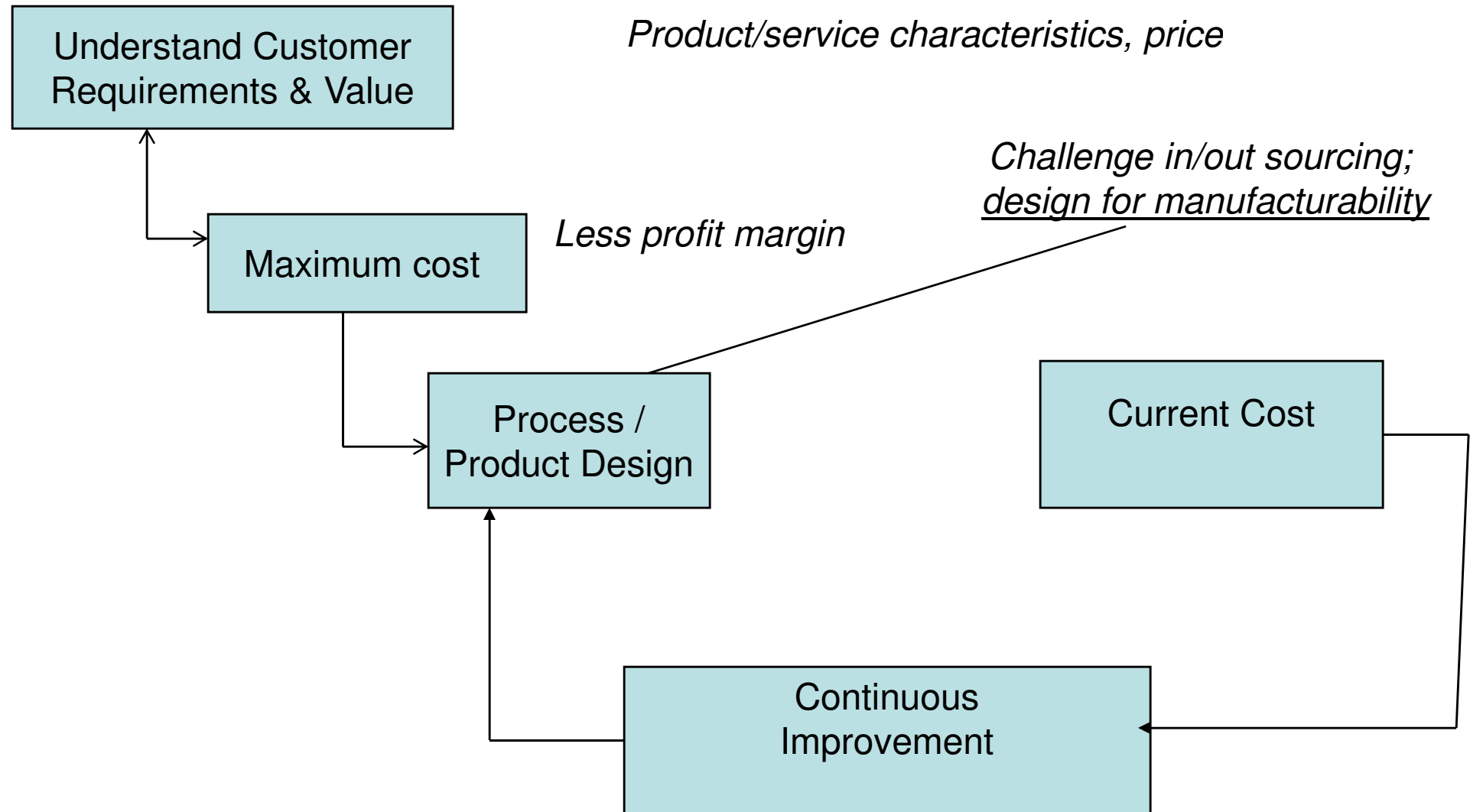
- Logistics & Materials Management

- ...physical transformation".*

- Production, Maintenance, Quality

-Womack and Jones

Target Costing



Value Stream Measures

Customer Satisfaction	Cost & Productivity	Flexibility & Responsiveness
Customer Satisfaction Index	Productivity Growth %	Defects per 1,000 Units
Customer Return %	Constant \$ Sales / Employee	Performance to Takt Time
Delivery Performance	Absenteeism	% of Time Each Cell meets Takt Time
Average Quoted Lead Time	Unplanned Downtime	Average First Pass Yield %
Late Shipments - \$		Raw Material Inventory \$
Late Shipments - # Units affected		WIP Inventory \$
Late Shipments - # Customers affected		FG Inventory \$
Abandoned Customer Phone Calls		Total Inventory, Days on Hand
% Customer Quotes Completed < 24hrs		

Value Stream Measures Contd..

Financial Performance	Safety & Ergonomics
Net Sales	Injuries
Operating Income as % of Sales	Medical Costs per 100 Associates
R&D Cost as % of Sales	Lost Time Accidents
% of Sales from New Products	
Capital Investment as % of Sales: ■ % for new products ■ % for capacity ■ % for safety, environmental etc.	
Working Capital as % of Sales	

Alternate Lean Measures

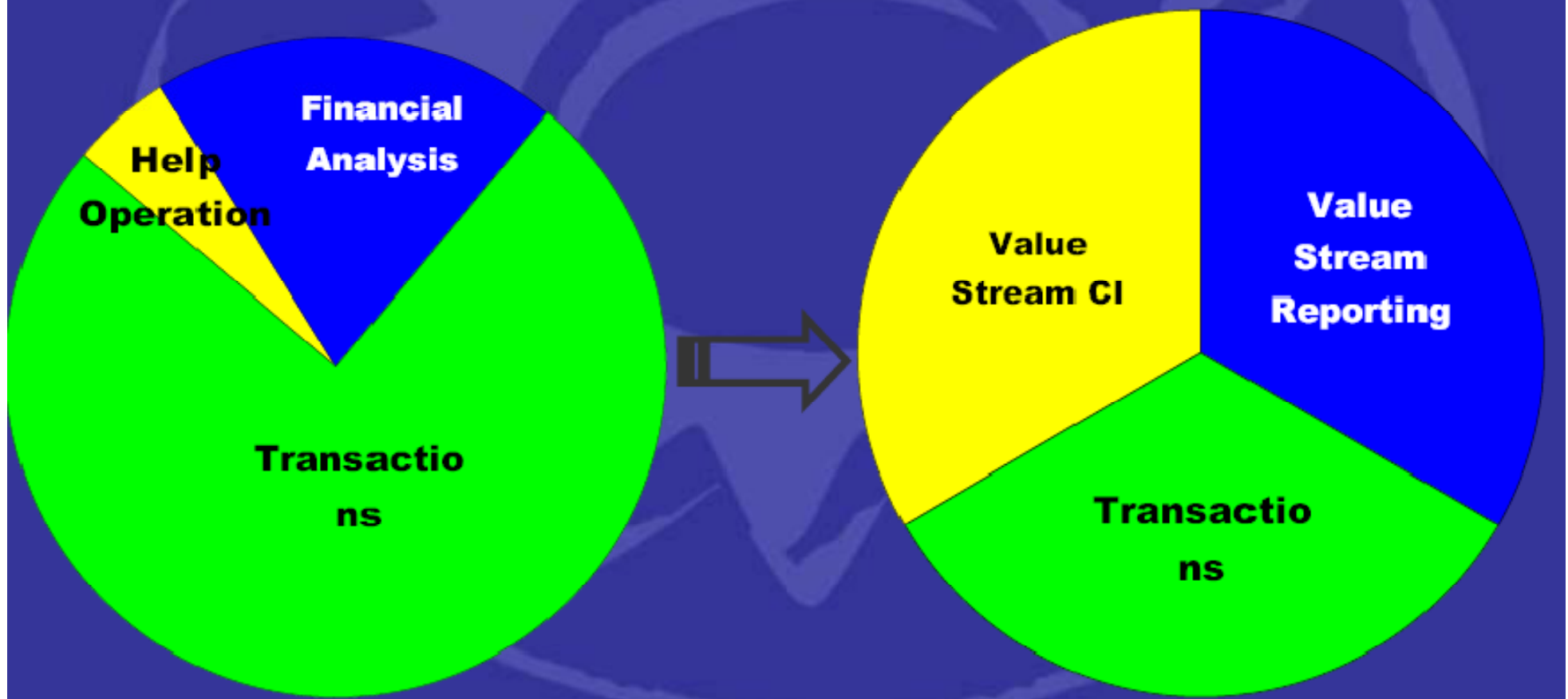
Strategic Issues	Strategic Measures	Value Stream Measures	Cell/Process Measures
Increase cash flow	Sales Growth	Sales per person	Day-by-the-hour production
Increase sales and market share	EBITDA	On-time delivery	WIP levels
Continuous improvement culture	Inventory days	Lead time	First-time through
	Customer satisfaction	Average cost per unit	Operation Equipment Effectiveness
	Sales per employee	AR days outstanding	

Material Costing, Cash flows

- Lean Accounting generally recognizes problems with standard costing & activity based costing, including:
 - Allocations of labour & overhead to the product will never be correct
 - Allocation processes are muda
 - Allocations can promote behaviours that are counter to lean operating practices
 - For decision making, examine the relevant cash flows

Accounting Processes

Lean Finance & Accounting Evolution



Accounting Processes

- ☐ One-day financial close; quarterly close
 - No accruals
 - Cash basis accounting
- ☐ General ledger simplification & reorganization
- ☐ Pay on receipt of materials

The Bottom Line on Lean Accounting - Cautions

- ❑ No recognition of a system constraint
 - Constraint provides certainty around changes
 - Profit velocity measure gives valuable link between sales, design, engineering, and operations
- ❑ Facilitates the segmentation & dedication of resources
 - “Segment the market, not your resources”
- ❑ Value Stream improvement efforts prioritized based on gap between average cost and target cost
 - Buffer management highlights issues putting throughput at the greatest risk – thus the most important issues
- ❑ Heavy focus on irrelevant process improvement
 - Use focussed steps to drive improvement

- ❑ Total expenditures are currently tracked well. Determining true costs of individual products is another matter.....
- ❑ “The primary culprit in distorted product costs is overhead allocation.....
....and the primary effect is to undervalue many products and overvalue others. This, in turn, causes managers to make products that could better be outsourced. It also causes under pricing of products that actually lose money”

- ❑ “Standard costing is not wrong, but it is inappropriate for lean manufacturing.....
- ❑ Standard costing is a perfectly good method of calculating product costs for companies that are committed to mass production methods.”

Lean Accounting

- Define Value
- Identify value streams
- Make the value stream flow
- Implement in a full system
- Strive for perfection

Measures

- ❑ On-time delivery
- ❑ Cost per unit
- ❑ First time through
- ❑ Unit per person
- ❑ Quality at source
- ❑ Quick changeover
- ❑ Cushions & Pull
- ❑ Value stream costing – productive time report – resource wise
 - Men
 - Machines

Deloitte.