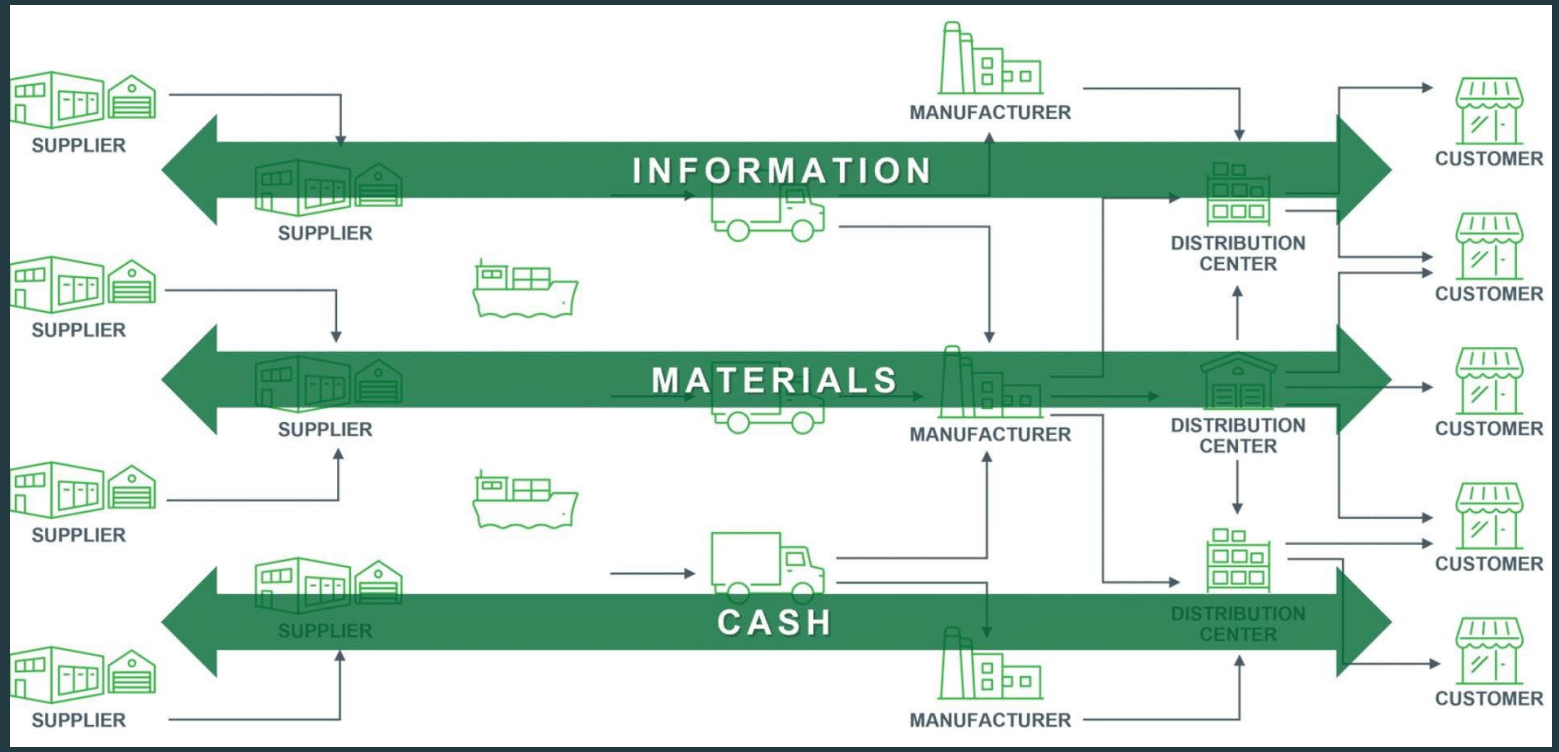
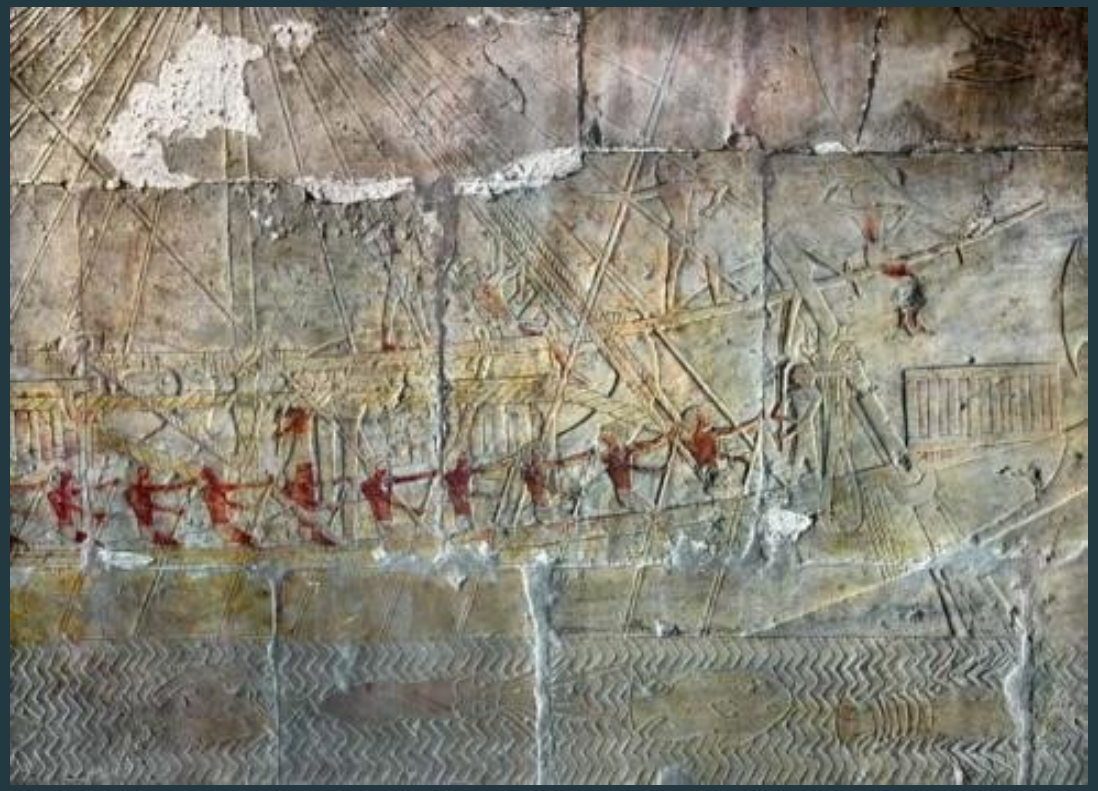
AGENDA

- SC history
- SCOR & supply chains
- SCOR model
- Case 3
- Case 3 team breakout
  - *Check in with SD re: company*
- Review homework solutions (optional)



https://www.ascm.org/corporate-transformation/standards-tools/scor-ds/#freecourse

HISTORY OF SUPPLY CHAINS

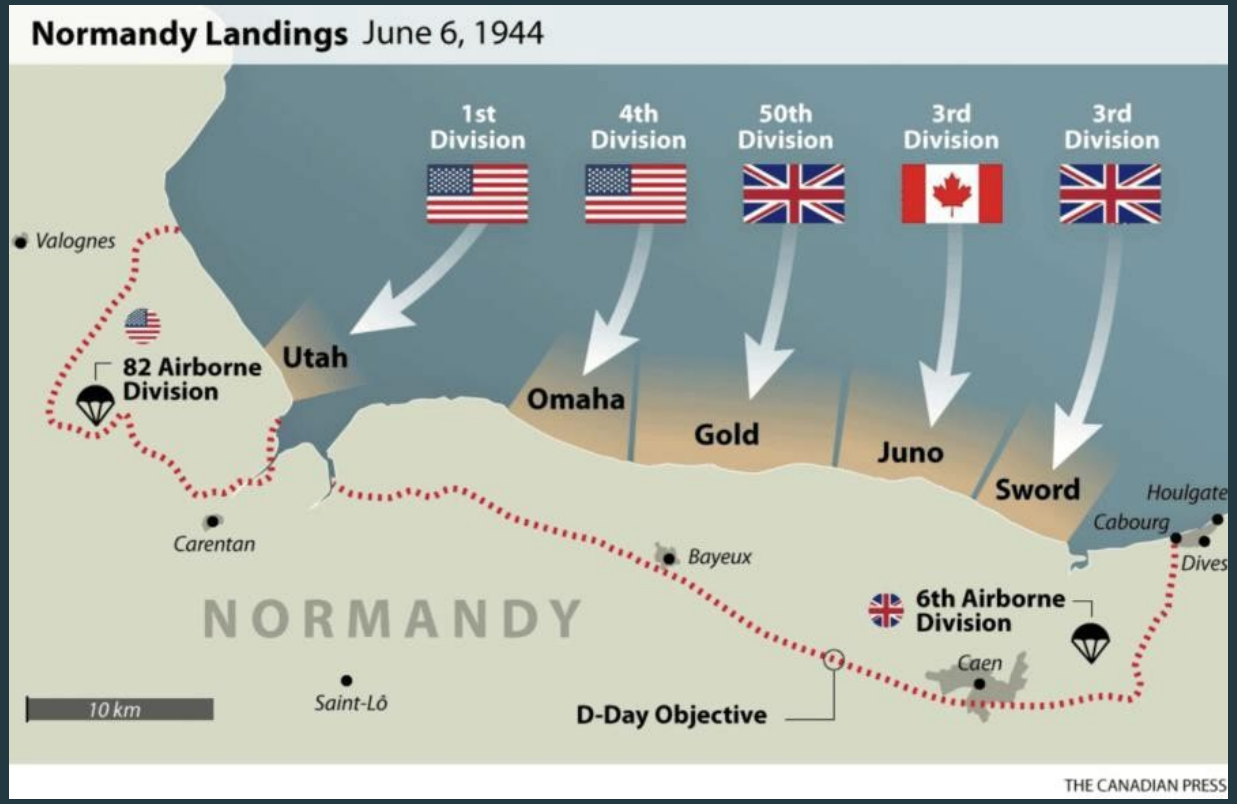


A relief at the temple of the female pharaoh Hatshepsut in Luxor, Egypt, carved ca. 1480 B.C., shows a merchant ship on a trading expedition. Vessel artifacts match this depiction. (Ferrebee, n.d.)

The red line shows the over the land route from the Nile to Mersa Gawasis. (K. Bard & Fattovich, 2008)

https://asn.am/atlas/africa/states/egypt.php

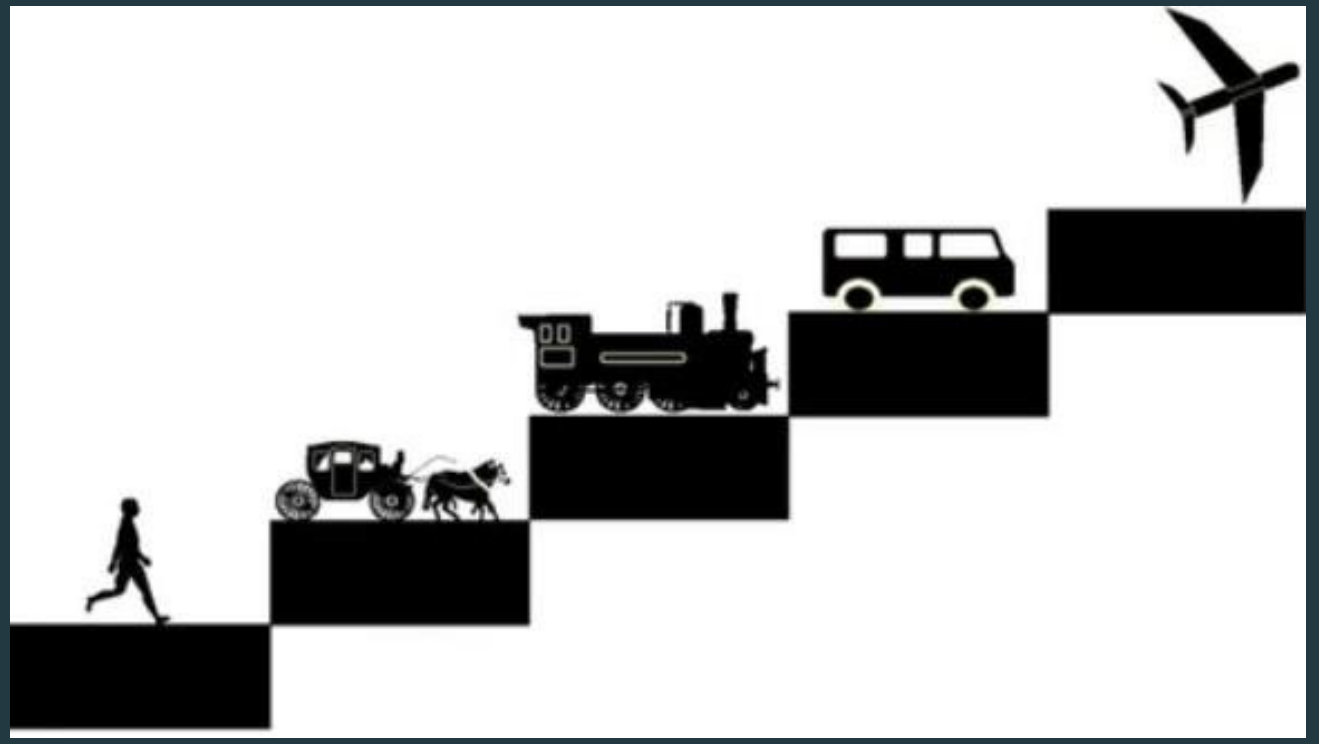
HISTORY OF SUPPLY CHAINS



https://www.towntalkradio.com/june-6-d-day-allies-storm-normandys-coast/

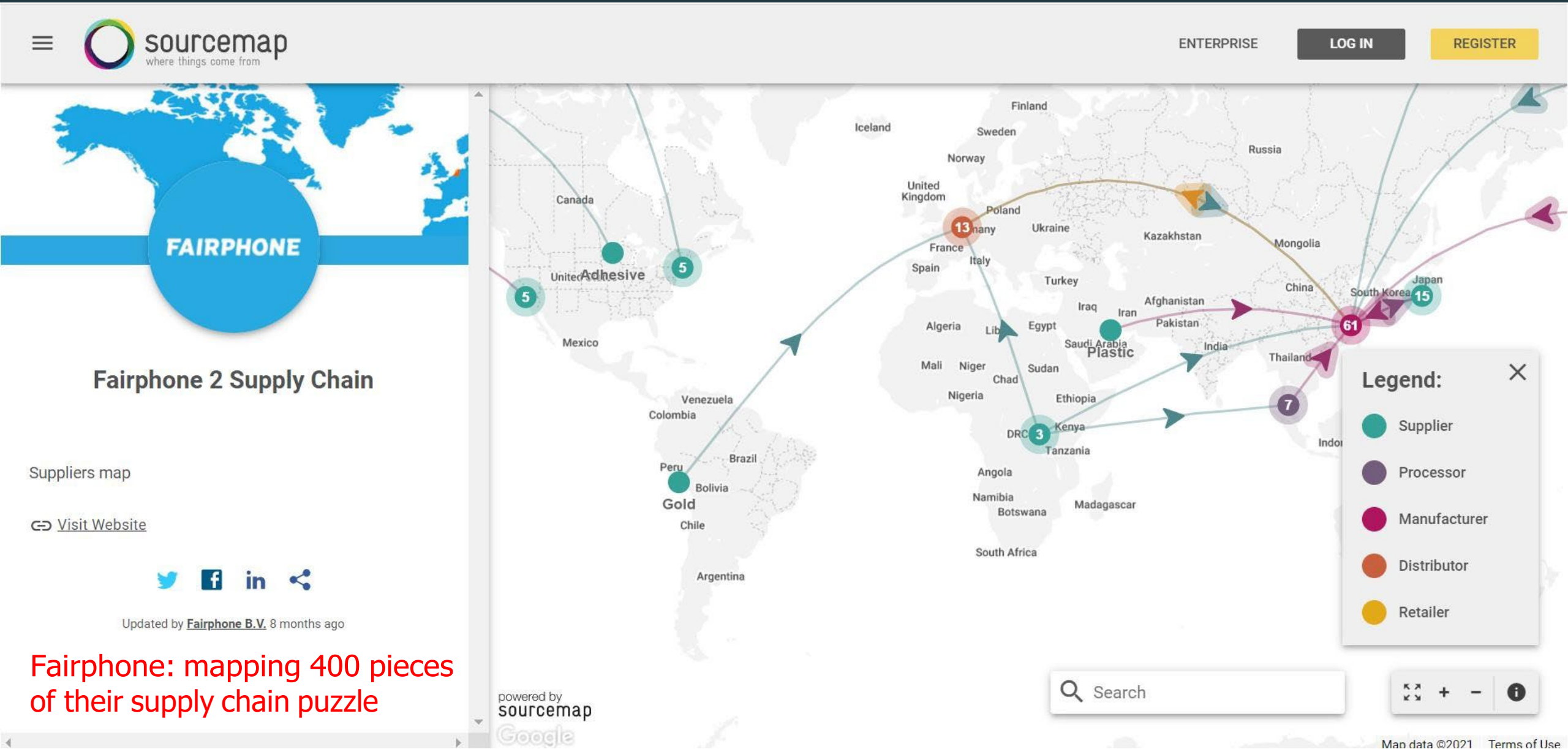
Mulberry road with jetty in the background. Normandy, France. 1944. ("Arromanches-Mulberry Harbour - Submerged," n.d.)

LEADING US TO MODERN DAY LOGISTICS AND COMPLEX SUPPLY CHAINS



SOURCEMAP EXAMPLE: FAIRPHONE

https://open.sourcemap.com/maps/57bd640851c05c0a5b5a8be1



Fairphone: mapping 400 pieces of their supply chain puzzle

HOW COMPANIES USE SCOR

The adoption of SCOR as the end-to-end process blueprint dramatically increases the use of standard system functionality and enables more targeted investments in digital capabilities. By combining elements of business process engineering, leading practices, benchmarking, people skills and a variety of metrics into a succinct framework, SCOR makes it possible to pinpoint core process areas that require optimization to further organizational goals.

https://www.ascm.org/corporate-transformation/standards-tools/scor-ds/#freecourse

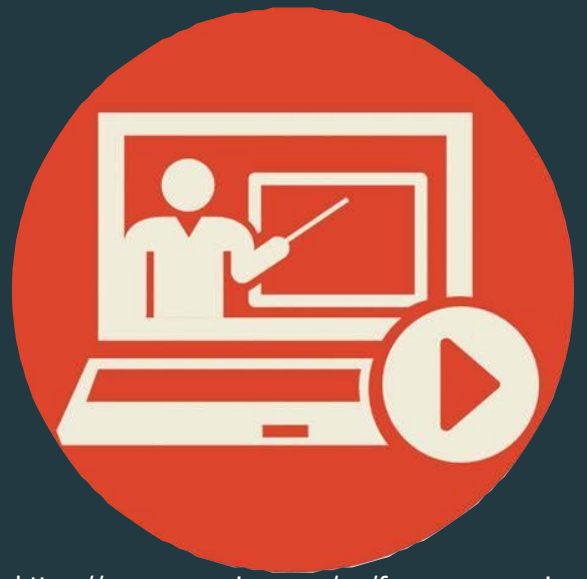
https://blog.contactcenterpipeline.com/2015/01/3-tips-for-driving-process-excellence/
ILLUSTRATION BY MAREK POLAKOVIC

COURSE ON-LINE

Learning Objectives

- Describe the parts and flows of a simple supply chain
- Explain the purpose and structure of the Supply Chain Operations Reference Digital Standard (SCOR DS) framework.
- Discuss the importance of SCOR performance metrics.
- Identify and organize the seven processes of the SCOR model.
- Recognize the ways in which SCOR practices can advance organizations and their supply chains.
- Recognize the five levels of SCOR people competencies.
- Identify the five stages of a SCOR-DS improvement program.

https://www.ascm.org/corporate-transformation/standards-tools/scor-ds/#freecourse

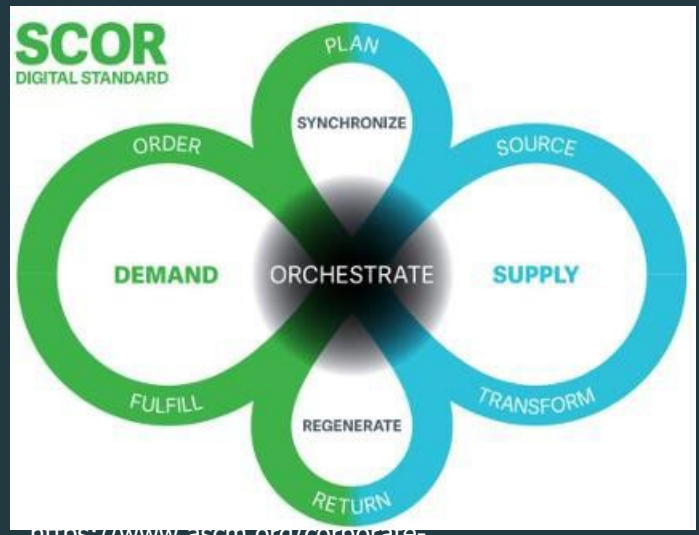


https://www.pngwing.com/en/free-png-mwpie

- The purpose and structure of the Supply Chain Operations Reference Digital Standard (SCOR DS) framework.
- The importance of SCOR performance metrics.
- How to identify and organize the seven processes of the SCOR model.
- How SCOR practices can advance organizations and their supply chains.
- About the five stages of a SCOR-DS improvement program.

KEY POINTS: SCOR

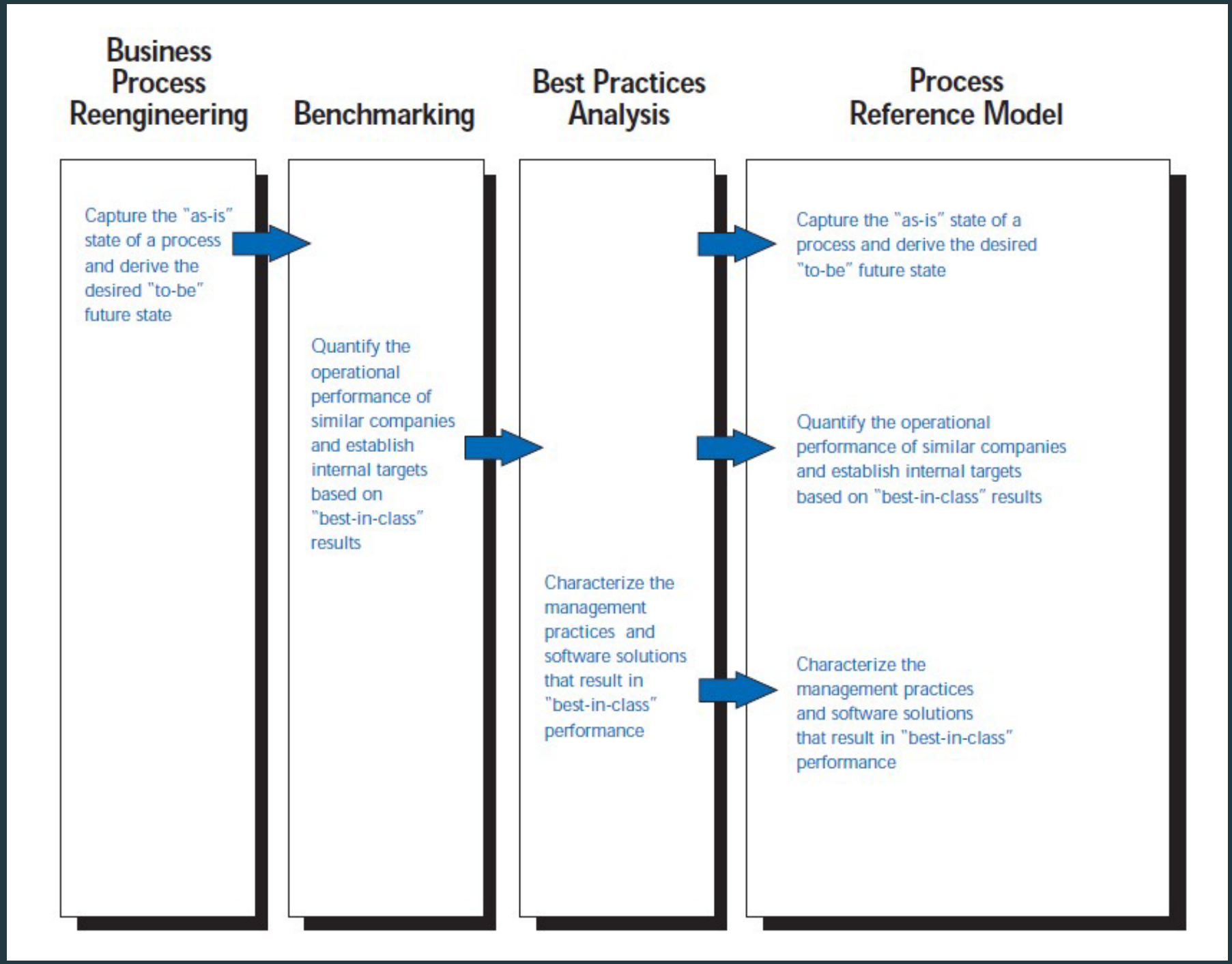
- Excludes sales and marketing, including demand generation, product development, and research and development.
- Access: https://scor.ascm.org/processes/introduction
- Goal: to develop supply chains that focus on satisfying customer demand
- Uses:
  - *Analyze current strategies and quantify performance*
  - *Identify targets for supply chain improvement*
  - *Solving business problems*



https://www.ascm.org/corporate-transformation/standards-tools/scor-ds/#freecourse

SCOR FRAMEWORK

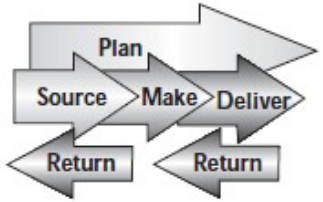
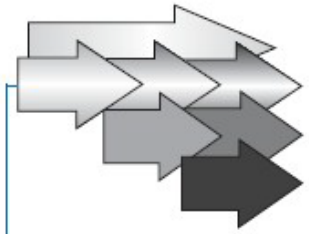
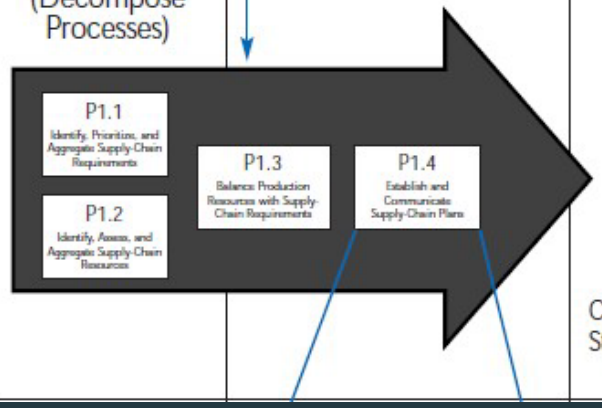
https://www.ascm.org/corporate-transformation/standards-tools/scor-ds/#freecourse



Supply-Chain Operations Reference-model
Overview of SCOR Version 6.0, ASCM.

SCOR Contains Three Levels of Process Detail

Supply-Chain Operations Reference-model

Level #	Description	Schematic	Comments
1	Top Level (Process Types)		Level 1 defines the scope and content for the Supply Chain Operations Reference-model. Here basis of competition performance targets are set.
2	Configuration Level (Process Categories)		A company's supply chain can be "configured-to-order" at Level 2 from the core "process categories." Companies implement their operations strategy through the configuration they choose for their supply chain.
3	Process Element Level (Decompose Processes)		Level 3 defines a company's ability to compete successfully in its chosen markets, and consists of: • Process element definitions • Process element information inputs, and outputs • Process performance metrics • Best practices, where applicable • System capabilities required to support best practices • Systems/tools Companies "fine tune" their Operations Strategy at Level 3.

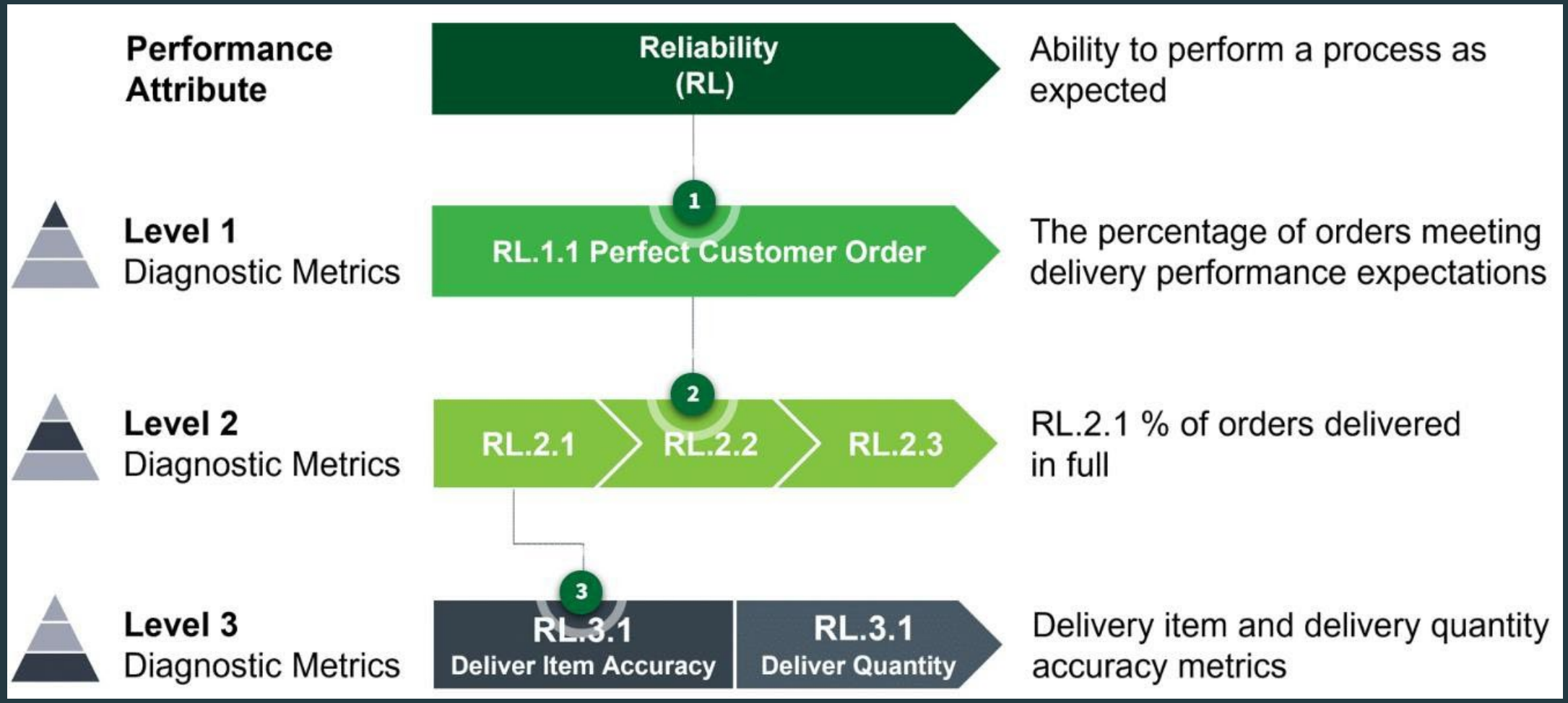
Supply-Chain Operations Reference-model
Overview of SCOR Version 6.0, ASCM.

PERFORMANCE ATTRIBUTES

	Performance Attributes	Definition
Resilience	Reliability (RL)	The ability to perform tasks as expected. Reliability focuses on the predictability of the outcome of a process. Typical metrics for the Reliability attribute include delivering a product on time, in the right quantity, and at the right quality level.
	Responsiveness (RS)	The speed at which tasks are performed and the speed at which a supply chain provides products to the customer. Examples include cycle-time metrics.
	Agility (AG)	The ability to respond to external influences and marketplace changes to gain or maintain a competitive advantage.
Economic	Costs (CO)	The cost of operating the supply chain processes. This includes labor costs, material costs, and management and transportation costs.
	Profit (PR)	The Profit attribute describes the financial benefit realized when the revenue generated from a business activity exceeds the expenses, costs, and taxes involved in sustaining the activity.
	Assets (AM)	The ability to efficiently utilize assets. Assets' strategies in a supply chain include inventory reduction and insourcing rather than outsourcing.
Sustainability	Environmental (EV)	The Environmental attribute describes the ability to operate the supply chain with minimal environmental impact, including materials, water, and energy.
	Social (SC)	The Social attribute describes the ability to operate the supply chain aligned with the organization's social values, including diversity and inclusion, wage, and training metrics.

https://www.ascm.org/corporate-transformation/standards-tools/scor-ds/#freecourse

METRICS CODIFICATION



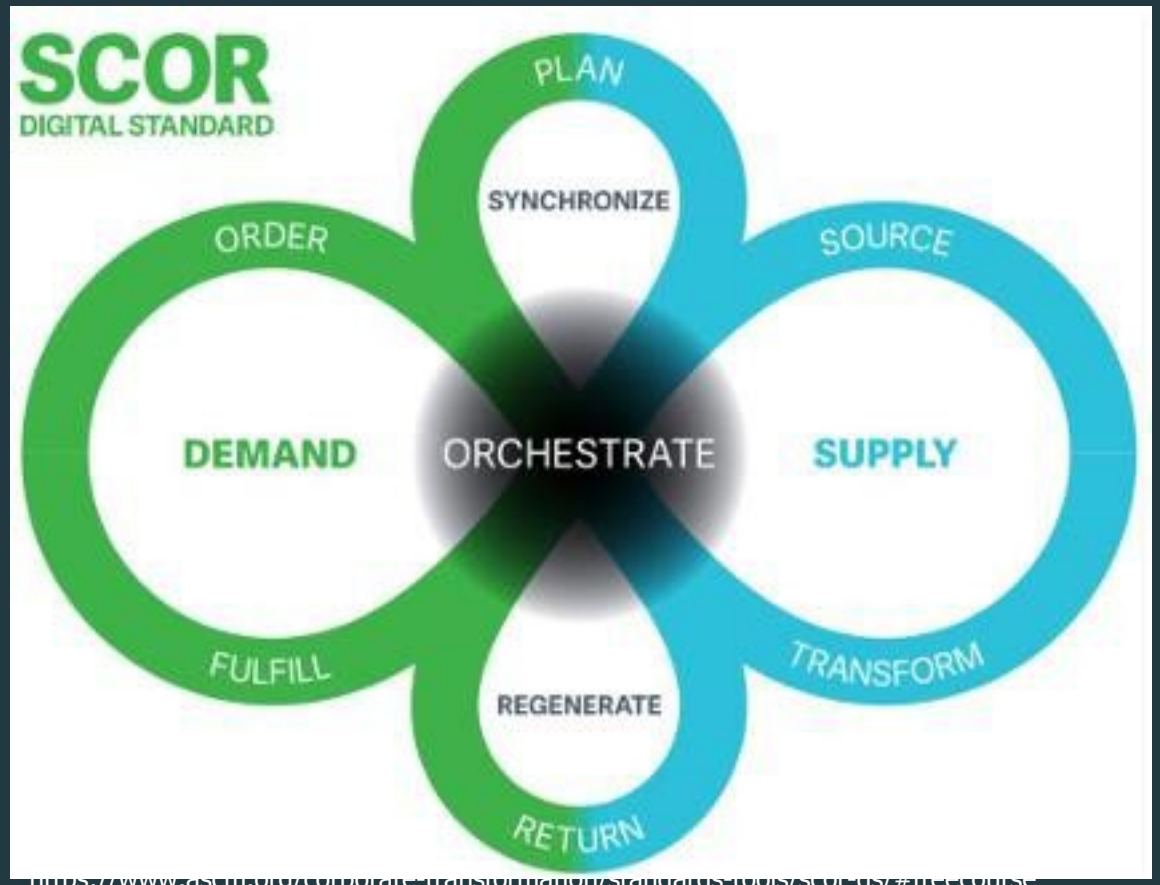
BREAKOUT

https://brooksgroup.com/sales-training-blog/sales-coaching-best-practices-series-team-coaching

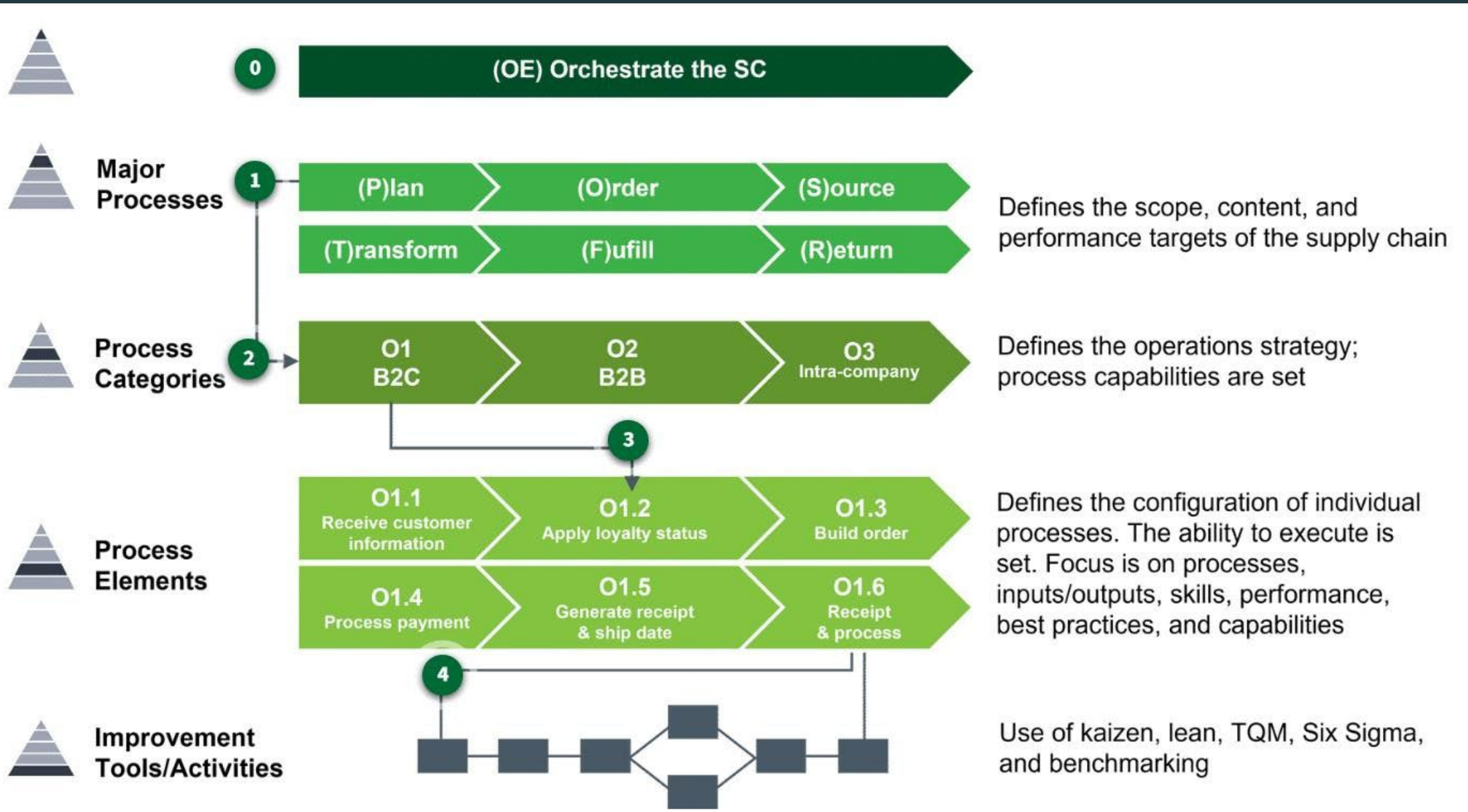
ducatorsopinion.wordpress.c
02/26/brain-breaks-are-good-
ners-too/

PROCESS OBJECTIVES

- As-is
  - *What are we doing and where?*
  - *How do we do this?*
- What-if
  - *Test different scenarios.*
- To-be
  - *What will we do and where?*
  - *How will we do this going forward?*



https://www.ascm.org/corporate-transformation/standards-tools/scor-ds/#freecourse



https://www.ascm.org/corporate-transformation/standards-tools/scor-ds/#freecourse

PRACTICE

- Practices are linked to SCOR processes
- Purpose includes:
  - *Standardize*
  - *ID alternatives through benchmarking others*
  - *Determining what to change (wish list)*
  - *Ditching items on the "blacklist" ***
- Levels
  - *Level 1 → just 1 (best practices)*
  - *Level 2 → 280 different ones!*
    - With so many how do you choose?? Benchmark

https://www.ascm.org/corporate-transformation/standards-tools/scor-ds/#freecourse

PEOPLE!

- Skills (HS)
- Experience (HE)
- Training (HT)
- Competency

https://www.ascm.org/corporate-transformation/standards-tools/scor-ds/#freecourse

CONTINUOUS IMPROVEMENT NEVER ENDS

https://www.ascm.org/corporate-transformation/standards-tools/scor-ds/#freecourse

SPOT

COURSE EVALUATIONS

ASCM ASSOCIATION FOR SUPPLY CHAIN MANAGEMENT

SCOR DIGITAL STANDARD

Processes | Performance | People | Practices | Special Applications and Resources

Introduction | Orchestrate | Plan | Order | Source | Transform | Fulfill | Return

HTTPS://SCOR.ASCM.ORG/PROCESSES/INTRODUCTION

ATTRIBUTE	LEVEL-1 METRIC
Reliability	RL.1.1 Perfect Order Fulfillment
	RL.1.2 Perfect Supplier Order
	RL.1.3 Perfect Return Order Fulfilment

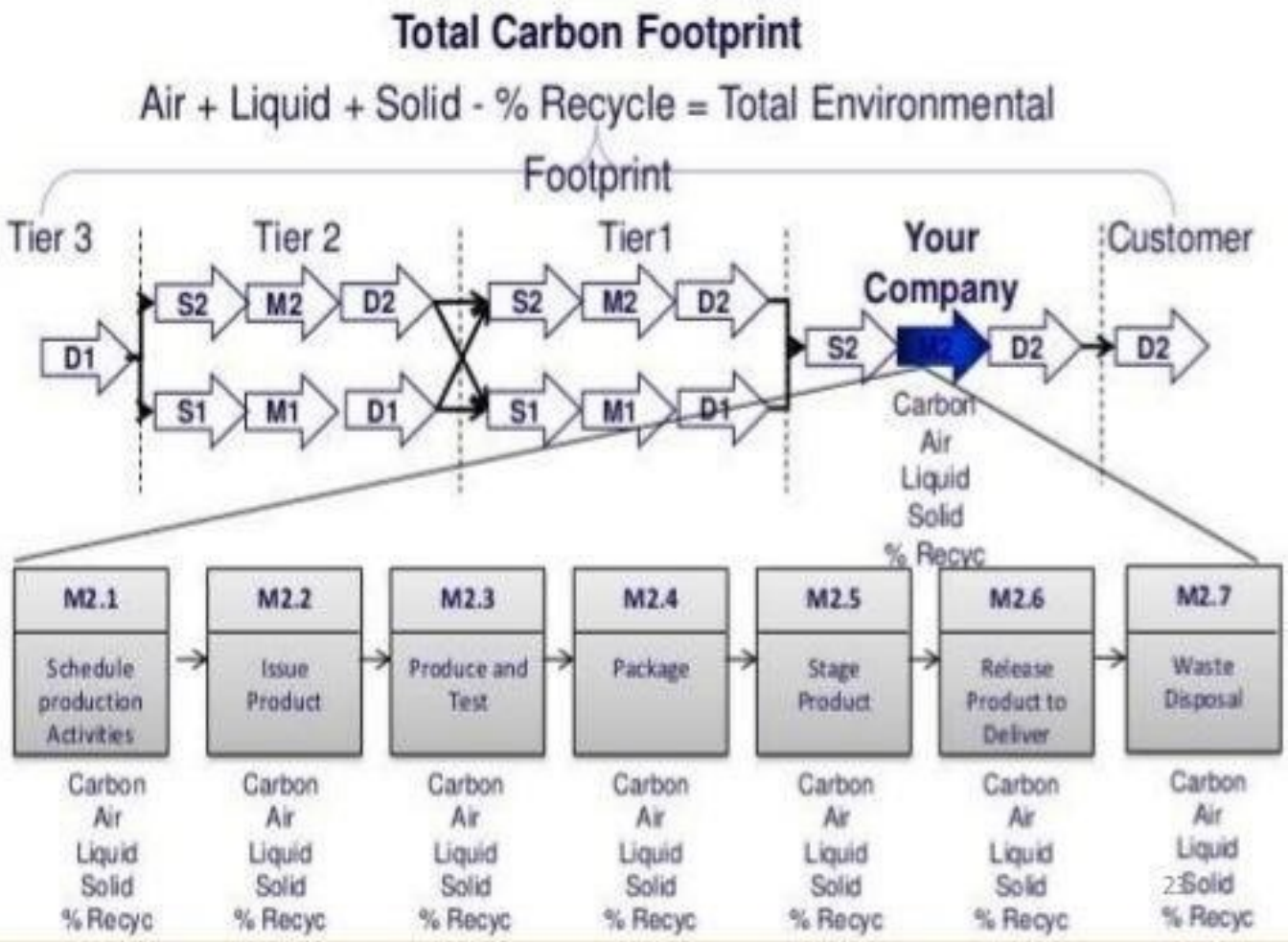
Orchestrate Supply Chain

The Orchestrate Supply Chain proces
associated with the integration and e
strategies. These include the creation

SCOR: Best Practices

Best Practices - Green SCOR

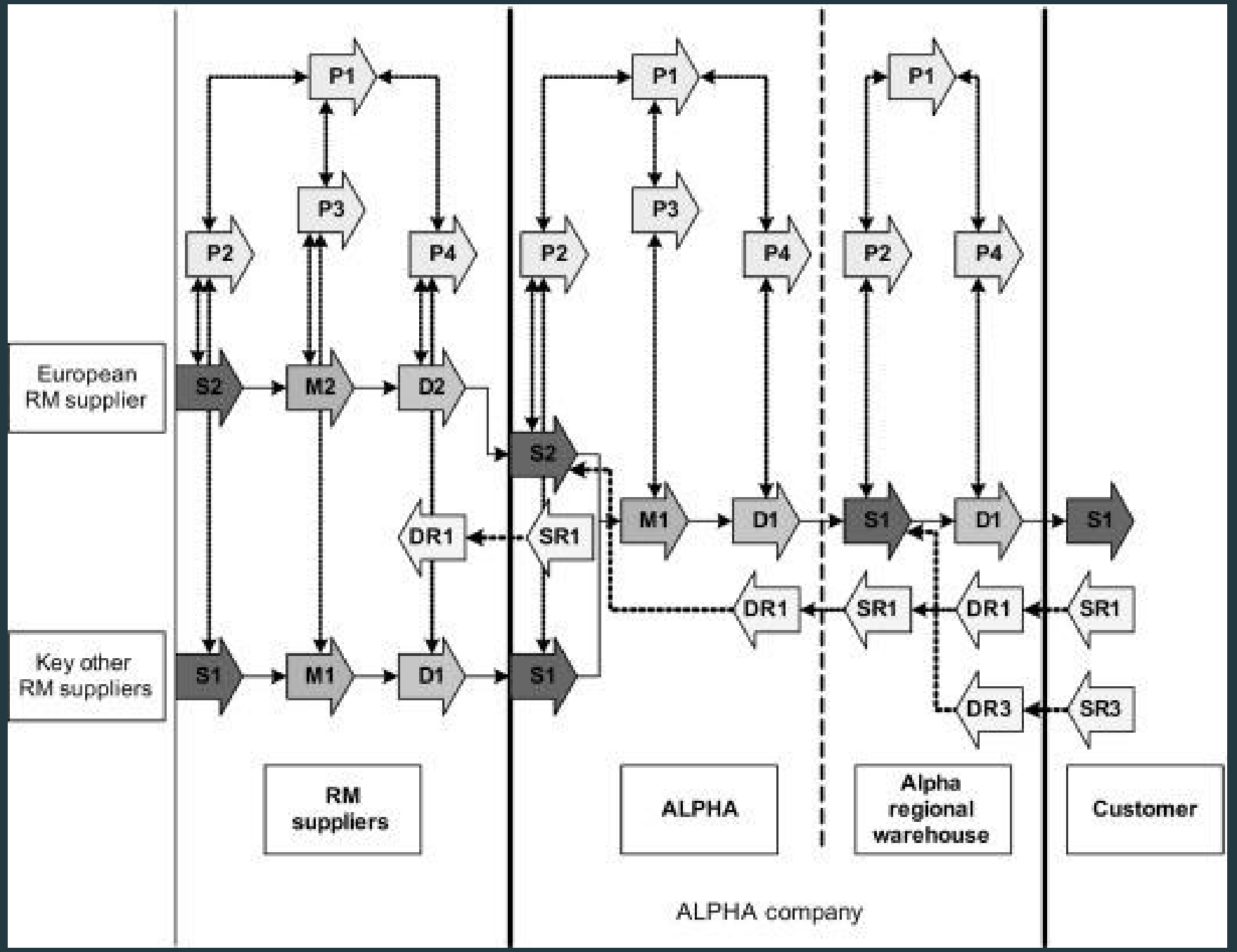
2. Green metrics Aggregation along SCOR process structure



https://www.slideshare.net/mmr787/scor-model-63109717

THREAD DIAGRAM EXAMPLE

https://icatalog.dau.edu/mobile/CLL037/DAU_Supply_Chain_Atlas/010113/010113000120.html



Paul Harmon, "Chapter 6 - Process management." Business Process Change (Fourth Edition), Edited by Paul Harmon, Morgan Kaufmann, 2019, pps 125-150.

SCOR EXAMPLE

From: 'Keeping SCOR in Your Supply Chain'

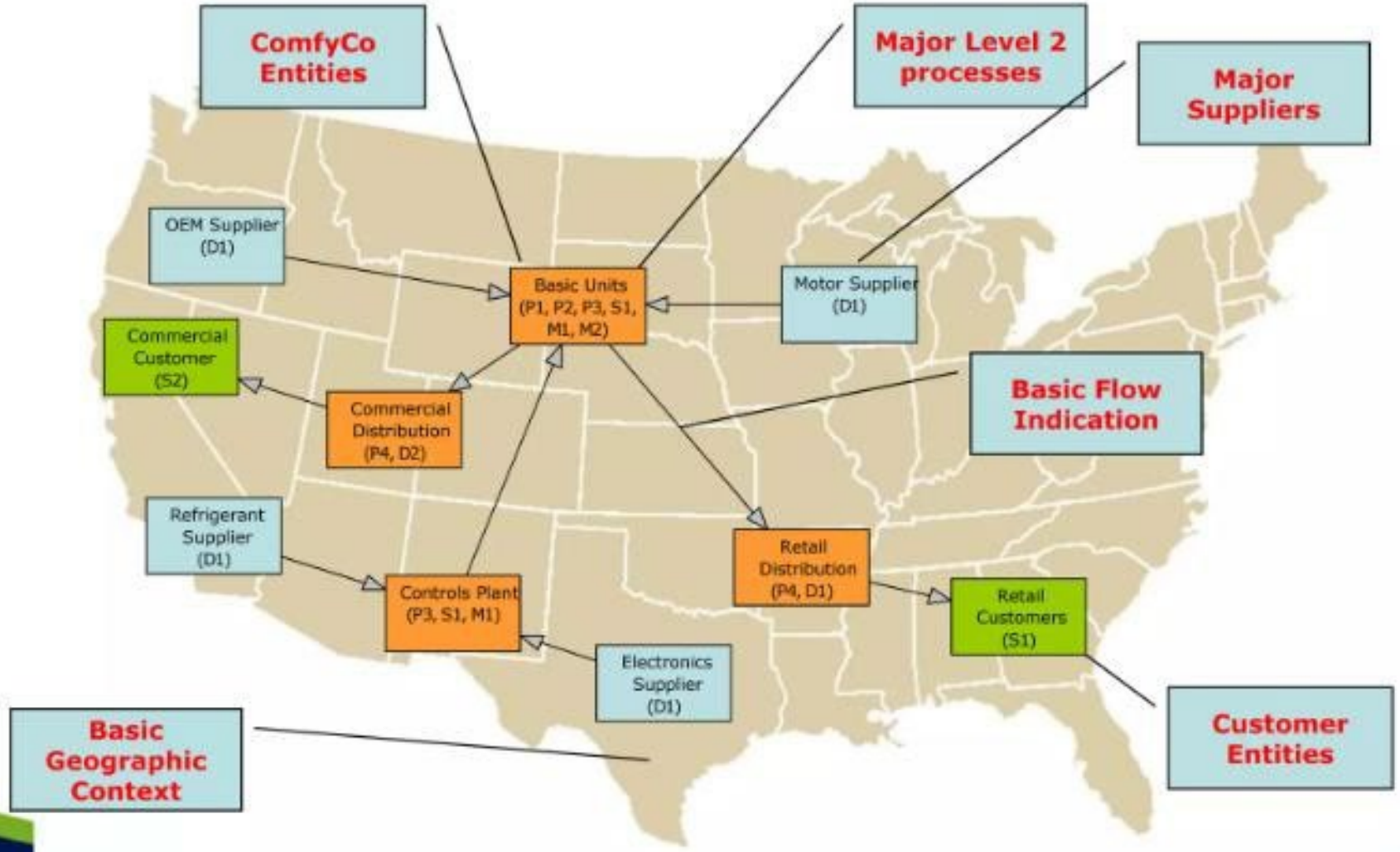
by Richard J. Sherman, Emeritus
Supply Chain Council

1/2011

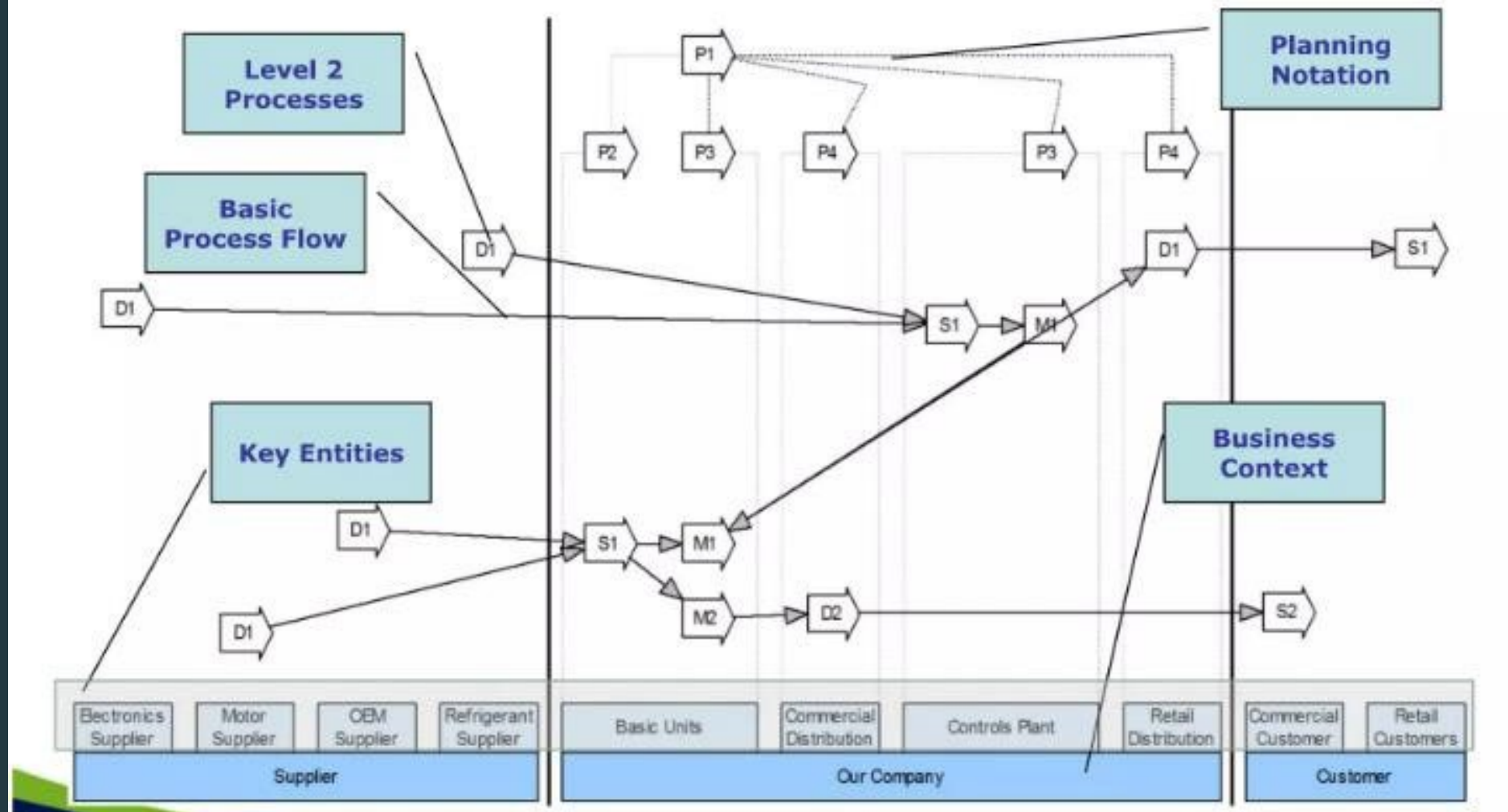
Define Business Scope

Scoping identifies all parties involved in program

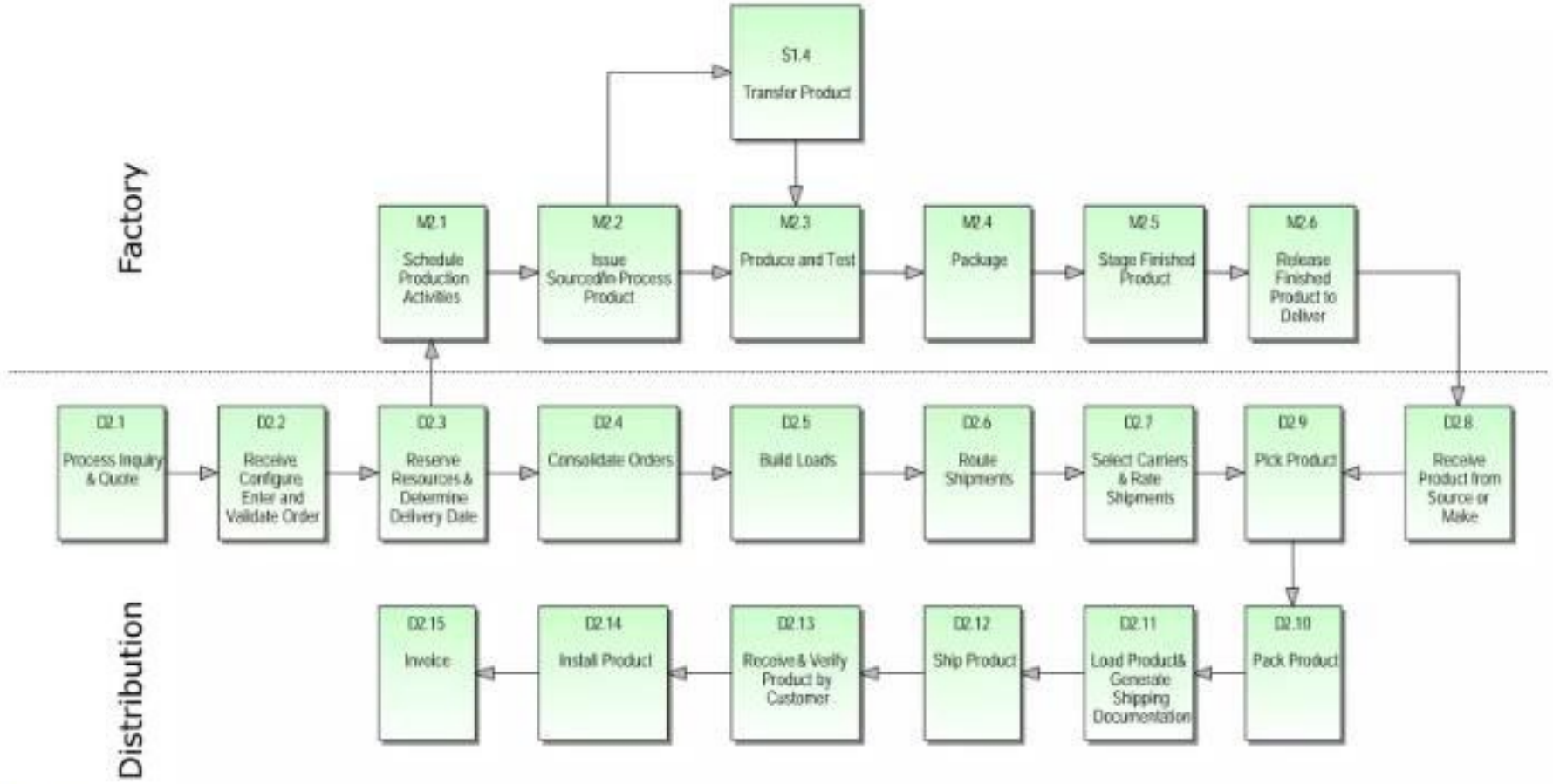
Create a Geo Map of ComfyCo (US)



Develop a SCOR Thread Diagram



Captured SCOR Level-3 Model



Benchmark to Identify Process Parity, Advantage, or Superiority

Attribute	Metric (level 1)	Company	Parity	Adv	Superior	Parity Gap	Req Gap
Reliability	Perfect Order Fulfillment	98%	92%	96%	98%	-6%	
Responsiveness	Order Fulfillment Cycle Time	14 days	8 days	6 days	4 days	6 days	8 days
Flexibility	Ups. Supply Chain Flexibility	62 days	80 days	62 days	40 days	-18 days	
Cost	Supply Chain Mgmt Cost	10.1%	10.8%	10.4%	10.2%	-0.7%	
Assets	Cash-to-Cash Cycle Time	22 days	45 days	30 days	20 days	-23 days	

Scoping Identifies one or more targeted metrics for improvement

Potential Outsource Opportunity

Parity	**Median of Statistical Sample**
Advantage	**Midpoint of Parity and Superior**
Superior	**90th percentile of population**

SCOR Provides Analytic Framework for Outsourcing Business Processes

SCOR enables you to map, measure, benchmark and analyze your processes.

- When and how should you outsource?

	Low Expertise	High Expertise
High Value	*Performance Based Opportunity*	*Core Competency/ High IP*
Low Value	*Traditional 3PL*	*Can a Third Party Perform at a Lower Cost?*

How to determine fit?

- For each business process
  - Determine expertise
  - Determine value
- Pin in the quadrant

- Outsource or implement best practice IF it makes sense for your specific processes, business, or industry.

SCOR/PBL Project – Baseline

- The SCOR perspective of "supplier's supplier" through "customer's customer" is measured by the degree of integration
  - Internal Integration
  - External Integration
  - Enterprise Optimization
- Performance Based Logistics (PBL) maturity is measured in the same way
  - Partnerships between suppliers and customers
  - Managed by metrics, enabled by processes and innovation
- The SCOR model provides a toolkit to design and implement, manage, and measure PBL processes throughout the life cycle of the relationship.

YOUR TURN (PP)

- Go to OE, pick 1
- Using OE, pick associated performance attribute & metric
- Pick level-1 major process (plan, order, transform, etc.)
- Using major process, pick level-2 process category
- Using process category, pick level-3 process element
- Using process element, select practice & skill

https://scor.ascm.org/processes/introduction

- Create a simple flowchart showing the "peeling of the onion" with labels & description of the performance attribute (metric)/process/ practice/skill.
- Why is this process and associated bits important to a company's supply chain?
- In your current or a former position, could you drill down in this manner to assess the current "as is" situation? Be specific – I want more than a yes/no answer.
- Post your response in dropbox under Week 5 class work

PP week 5: SCOR

Find this here: content/module 5/week 5/lecture/SCOR class PP
Post to dropbox: PP 4-20 SCOR

Performance attribute, metric (level 1 or 2) – why?

Major process

Process category

Process element

Practice & skill

SCOR PROJECT ROADMAP

Analyze Competition

Ops Strategy

- Competitive performance rqmts
- Performance metrics
- Scorecard
- Gap Analysis/Plan

Configure SC

Material Flow

- As-is Geographic Map, Thread Diagram
- Design Specs
- To-be Thread Diagram, Geographic Map

Align Performance & Practice

Information & Workflow

- As-is Level 2, 3, and 4 Maps
- Disconnects
- Design Specs
- To-be Level 2, 3, and 4 Maps

Imple-ment SC processes

Develop, Test, & Roll Out

- Organization/People
- Technology/Automation
- Practices
- Standardize

Modified from: The SCOR project roadmap (Stephens, 2001)

ASSIGNMENTS

- Case 3 team project due before class on 4/27
- Prepare for week 6: Network Design
  - *Read chapters 4, 5, 6 (don't worry about the math detail; understand the concepts and relationships)*
  - *Take no-point quiz*
- Case 4 (due 5/4)
  - *Next week teams will choose their topic (also posted)*
  - *See content/case study for info*

Office hours! Please join me on Tuesdays 1-2pm or by appointment!

HOMEWORK REVIEW (OPTIONAL)

- Forecasting
- EOQ/EPQ
- ROP
- Safety stock
- Quantity discounts
- Aggregate planning
- LP