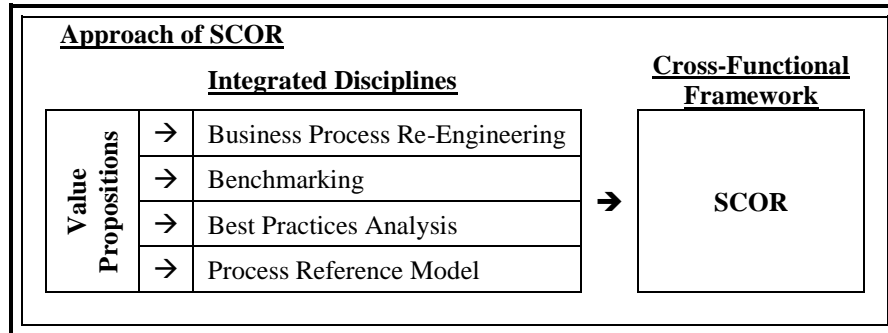


Introduction to SCOR
SCOR: Supply Chain Operations Reference Model

Organized in 1996, the Supply-Chain Council (SCC) was formed to develop, maintain, and improve a supply chain reference model, SCOR. In 2014, SCC merged with APICS to form the APICS Supply Chain Council (APICS SCC).

The Supply Chain Operations Reference model (SCOR) is the world’s leading supply chain framework, linking business processes, performance metrics, practices and people skills into a unified structure.



Supply Chain Operations Reference Model

SCOR Structure

Performance. Standard metrics to describe process performance and define strategic goals.

Attributes and Metrics for Reliability, Responsiveness, Agility, Costs, Assets

Processes. Standard descriptions of management processes and process relationships.

- Level 1. Process Types (Scope)
- Level 2. Process Categories (Configuration)
- Level 3. Process Elements (Steps)
- (Level4.) Activities (Implementation)

Practices. Management practices that produce significant better process performance.

Emerging, Best, Standard, Declining

People. Standard definitions for skills required to perform supply chain processes.

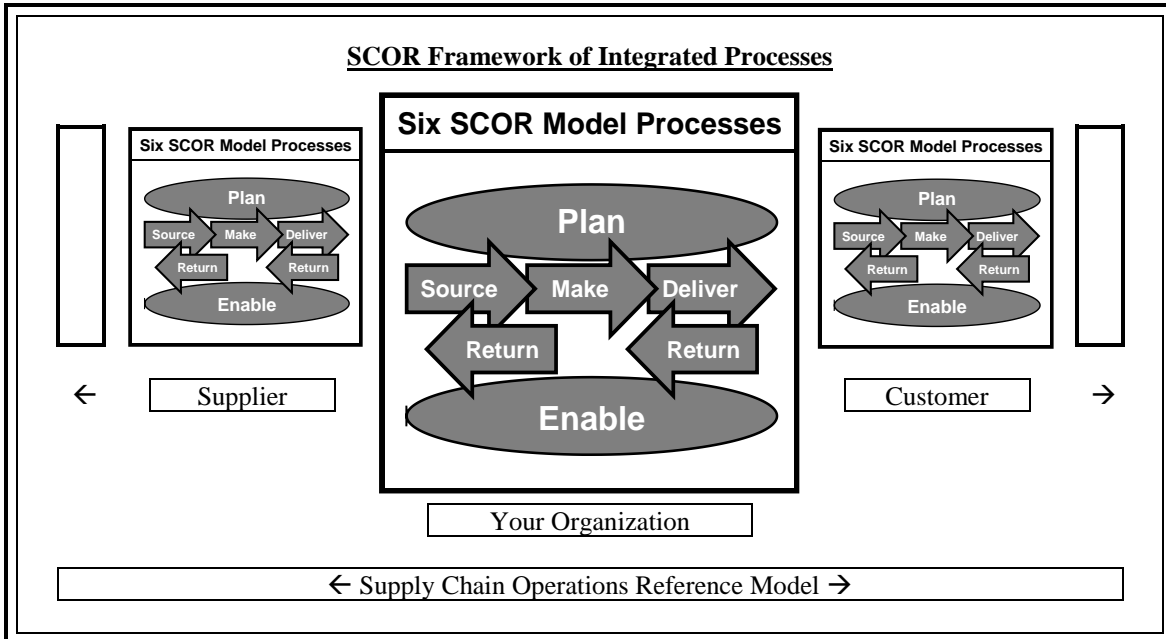
Novice, Beginner, Competent, Proficient, Expert

Source: SCOR: Supply Chain Operations Reference Model, Revision 11.0, released December 2012.

SCOR Processes

Level 1 Processes in SCOR

Plan, Source, Make, Deliver, Return, Enable



Major Processes

Plan	The Plan processes describe the activities associated with developing plans to operate the supply chain.
Source	The Source processes describe the ordering (or scheduling of deliveries) and receipt of goods and services.
Make	The Make processes describe the activities associated with the conversion of materials or creation of the content for services.
Deliver	The Deliver processes describe the activities associated with the creation, maintenance and fulfillment of customer orders.
Return	The Return processes describe the activities associated with the reverse flow of goods.
Enable	The Enable processes describe the activities associated with the management of the supply chain.

Levels of Process Detail

	Description	Examples
Level 1.	Process Types (Scope)	Plan,Source,Make,Deliver,Return,Enable
Level 2.	Process Categories (Configuration)	Make-to-Stock, Make-to-Order, Engineer-to-Order
Level 3.	Process Elements (Steps)	Schedule Deliveries, Receive Product, Verify Product, Authorize Payment
Level 4.	Activities (Implementation)	Out of the general scope of SCOR. Specific to type of supply chain.

SCOR Performance

Performance. Standard metrics to describe process performance and define strategic goals.
Attributes and Metrics for Reliability, Responsiveness, Agility, Costs, Assets

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Performance Attribute. A performance attribute is a grouping or categorization of metrics used to express a specific strategy.

Metric. A metric is a standard for measurement of the performance of a supply chain or process

	Performance Attributes	Level-1 Metrics	
Customer	Reliability	The Reliability attribute addresses the ability to perform tasks as required.	Perfect Order Fulfillment
	Responsiveness	The Responsiveness attribute describes the speed at which tasks are performed.	Order Fulfillment Cycle Time
	Agility	The Agility attribute describes the ability to respond to external influences; the ability to and speed of change.	Upside Flexibility, Upside Adaptability Downside Adaptability, Overall Value-at-Risk
Internal	Costs	The Cost attribute describes the cost of operating the process.	Total Cost to Serve
	Assets	The Asset Management Efficiency ('Assets') attribute describes the ability to efficiently utilize assets. Asset management strategies in supply chain include inventory reduction and in-source vs. outsource.	Cash-to-Cash Cycle Time Return on Fixed Assets Return on Working Capital

SCOR Practices

Practices. Management practices that produce significant better process performance.
Emerging, Best, Standard, Declining

Practices. Management practices that produce significant better process performance.
Emerging, Best, Standard, Declining

Emerging Emerging practices introduce new technology, knowledge or radically different ways of organizing processes.

Best Best practices are 'current', 'structured' and 'repeatable' practices that have had a proven and positive impact on supply chain performance

- Current: Not emerging, not outmoded.
- Structured: Feature a clearly stated goal, scope, process, and procedure.
- Proven: Demonstrated in a working environment, and linked to key metrics.
- Repeatable: Proven in multiple organizations and industries.

Standard Standard practices are how a wide range of companies have historically done business by default or happenstance.

Declining Declining practices represent ways of doing business, which can be widespread, that have proven to result in poor supply chain performance as indicated by key metrics.

Practices

		<i>Risks</i>			
		High	Moderate	Low	High
<i>Results</i>	High	Emerging			
	Moderate	Best			
	Low	Standard			
	Negative	Declining			

SCOR People

People. Standard definitions for skills required to perform supply chain processes.
Novice, Beginner, Competent, Proficient, Expert

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Key Elements

<u>Skill</u>	Skill is the capacity to deliver pre-determined results with minimal input of time and energy.
<u>Experience</u>	Experience is the knowledge or ability acquired by observation or active participation.
<u>Aptitude</u>	Aptitude is a natural, acquired, learned or developed ability to perform a certain kind of work at a certain level.
<u>Training</u>	Training develops a skill or type of behavior through instruction
<u>Competency</u>	Competency Level describes the level or state of qualification to perform a certain role or tasks. SCOR recognizes 5 commonly accepted competency levels.

Competency Levels

<u>Novice</u>	Untrained beginner, no experience, requires and follows detailed documentation to be able to perform the work.
<u>Beginner</u>	Performs the work, with limited situational perception.
<u>Competent</u>	Understands the work and can determine priorities to reach goals.
<u>Proficient</u>	Oversees all aspects of the work and can prioritize based on situational aspects.
<u>Expert</u>	Intuitive understanding. Experts can apply experience patterns to new situations.

SCOR Example

Book reference for a HOW-TO approach to SCOR in a fictitious company:
Supply Chain Excellence. A Handbook for Dramatic Improvement Using the SCOR Model, Third Edition, 2012,
P. Bolstorff, R. Rosembaum, AMACOM, ISBN:9780814417713.

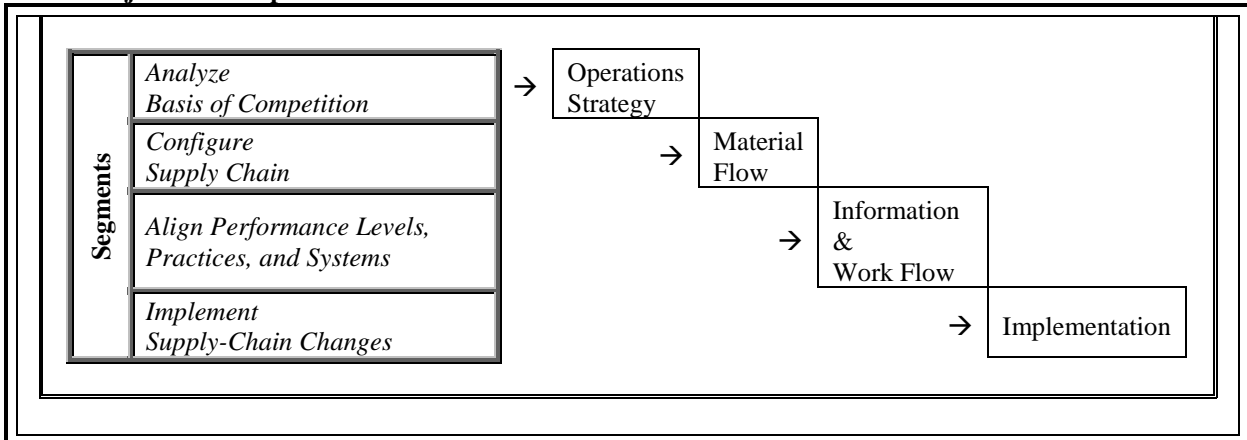
Essential Success Factors.

Change Management	Problem-solving Techniques	Project Management	Business Process Engineering Techniques
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Phases of Implementation Approach.

Build Organizational Support.
Define Project Scope.
Analyze Performance.
Develop Project Portfolio
Implement Projects.
---Extend to the Greater Value Chain---

SCOR Project Roadmap



<p><u>Operations Strategy</u></p> <ul style="list-style-type: none"> • Supply Chain Scope • Performance Metrics • Supply Chain SCORcard • Competitive Performance Requirements • SCORcard Gap Analysis 	<p><u>Information and Work Flow</u></p> <ul style="list-style-type: none"> • AS IS Work/Information Map • Transactional Productivity Analysis • TO BE Work/Information Map • Prioritized List of Changes
<p><u>Material Flow</u></p> <ul style="list-style-type: none"> • AS IS Material Flow • Disconnect & Gross Opportunity Analysis • Supply Chain Strategy and Best Practice Analysis • TO BE Material Flow 	<p><u>Implementation</u></p> <ul style="list-style-type: none"> • Master Schedule of Projects • ROI Analysis • Technology Selection • Detail Requirements, Solution Design, Configuration, Test & Go Live

Find a presentation of SCOR application by Peter Bolstorff on the YouTube below:
 APICS Webinar: SCOR 101-APICS for Business
 Peter Bolstorff
 [<https://youtu.be/58SJY2P42PE>]