

Supply-Chain Operations Reference-model



PLAN SOURCE MAKE DELIVER RETURN

SCOR Contains Three Levels of Process Detail

	Level		
	#	Description	Schematic
Supply-Chain Operations Reference-model	1	Top Level (Process Types)	
	2	Configuration Level (Process Categories)	
	3	Process Element Level (Decompose Processes)	
	4	Implementation Level (Decompose Process Elements)	

Not in Scope

PLAN

P1 Plan Supply Chain	P2 Plan Source	P3 Plan Make	P4 Plan Deliver	P5 Plan Return
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<p>P1.1: Identify, Prioritize, & Aggregate Supply-Chain Requirements</p> <p>P1.2: Identify, Assess, & Aggregate Supply-Chain Resources</p> <p>P1.3: Balance Supply-Chain Resources with Supply-Chain Requirements</p> <p>P1.4: Establish & Communicate Supply-Chain Plans</p>	<p>P2.1: Identify, Prioritize, & Aggregate Product Requirements</p> <p>P2.2: Identify, Assess, & Aggregate Product Resources</p> <p>P2.3: Balance Product Resources with Product Requirements</p> <p>P2.4: Establish Sourcing Plans</p>	<p>P3.1: Identify, Prioritize, & Aggregate Production Requirements</p> <p>P3.2: Identify, Assess, & Aggregate Production Resources</p> <p>P3.3: Balance Production Resources with Production Requirements</p> <p>P3.4: Establish Production Plans</p>	<p>P4.1: Identify, Prioritize, & Aggregate Delivery Requirements</p> <p>P4.2: Identify, Assess, & Aggregate Delivery Resources</p> <p>P4.3: Balance Delivery Resources with Delivery Requirements</p> <p>P4.4: Establish Delivery Plans</p>	<p>P5.1: Identify, Prioritize, & Aggregate Return Requirements</p> <p>P5.2: Identify, Assess, & Aggregate Return Resources</p> <p>P5.3: Balance Return Resources with Return Requirements</p> <p>P5.4: Establish & Communicate Return Plans</p>
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Enable Plan

<p>EP1: Manage Business Rules for Plan Processes</p> <p>EP6: Manage Integrated Supply Chain Transportation</p>	<p>EP2: Manage Performance of Supply Chain</p> <p>EP7: Manage Planning Configuration</p>	<p>EP3: Manage Plan Data Collection</p> <p>EP8: Manage Plan Regulatory Requirements & Compliance</p>	<p>EP4: Manage Integrated Supply Chain Inventory</p> <p>EP9: Align Supply Chain Plan with Financial Plan</p>	<p>EP5: Manage Integrated Supply Chain Capital Assets</p>
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SOURCE

S1
Source Stocked Product

S2
Source Make-to-Order Product

S3
Source Engineer-to-Order Product

S1.1:
Schedule Product Deliveries

S1.2:
Receive Product

S1.3:
Verify Product

S1.4:
Transfer Product

S1.5:
Authorize Supplier Payment

S2.1:
Schedule Product Deliveries

S2.2:
Receive Product

S2.3:
Verify Product

S2.4:
Transfer Product

S2.5:
Authorize Supplier Payment

S3.1:
Identify Sources of Supply

S3.2:
Select Final Supplier(s) and Negotiate

S3.3:
Schedule Product Deliveries

S3.4:
Receive Product

S3.5:
Verify Product

S3.6:
Transfer Product

S3.7:
Authorize Supplier Payment

MAKE

M1
Make-to-Stock

M2
Make-to-Order

M3
Engineer-to-Order

M1.1:
Schedule Production Activities

M1.2:
Issue Product

M1.3:
Produce and Test

M1.4:
Package

M1.5:
Stage Product

M1.6:
Release Product to Deliver

M2.1:
Schedule Production Activities

M2.2:
Issue Product

M2.3:
Produce and Test

M2.4:
Package

M2.5:
Stage Product

M2.6:
Release Product to Deliver

M3.1:
Finalize Engineering

M3.2:
Schedule Production Activities

M3.3:
Issue Product

M3.4:
Produce & Test

M3.5:
Package

M3.6:
Stage Product

M3.7:
Release Product to Deliver

DELIVER

D1
Deliver Stocked Product

D2
Deliver Make-to-Order

D3
Deliver Engineer-to-Order Product

D4
Deliver Retail Product

D1.1:
Process Inquiry & Quote

D1.2:
Receive, Enter & Validate Order

D1.3:
Reserve Inventory & Determine Delivery Date

D1.4:
Consolidate Orders

D1.5:
Build Loads

D1.6:
Route Shipments

D1.7:
Select Carriers & Rate Shipments

D1.8:
Receive Product from Source or Make

D1.9:
Pick Product

D1.10:
Pack Product

D1.11:
Load Product & Generate Shipping Docs

D1.12:
Ship Product

D1.13:
Receive & Verify Product by Customer

D1.14:
Install Product

D1.15:
Invoice

D2.1:
Process Inquiry & Quote

D2.2:
Receive, Configure, Enter & Validate Order

D2.3:
Reserve Resources & Determine Delivery Date

D2.4:
Consolidate Orders

D2.5:
Build Loads

D2.6:
Route Shipments

D2.7:
Select Carriers & Rate Shipments

D2.8:
Receive Product from Source or Make

D2.9:
Pick Product

D2.10:
Pack Product

D2.11:
Load Product & Generate Shipping Docs

D2.12:
Ship Product

D2.13:
Receive & Verify Product by Customer

D2.14:
Install Product

D2.15:
Invoice

D3.1:
Obtain & Respond to RFP/RFQ

D3.2:
Negotiate & Receive Contract

D3.3:
Enter Order, Commit Resources & Launch Program

D3.4:
Schedule Installation

D3.5:
Build Loads

D3.6:
Route Shipments

D3.7:
Select Carriers & Rate Shipments

D3.8:
Receive Product from Source or Make

D3.9:
Pick Product

D3.10:
Pack Product

D3.11:
Load Product & Generate Shipping Docs

D3.12:
Ship Product

D3.13:
Receive & Verify Product by Customer

D3.14:
Install Product

D3.15:
Invoice

D4.1:
Generate Stocking Schedule

D4.2:
Receive Product at the Store

D4.3:
Pick Product from Backroom

D4.4:
Stock Shelf

D4.5:
Fill Shopping Cart

D4.6:
Checkout

D4.7:
Deliver and/or install

Enable Source

ES1: Manage Sourcing Business Rules

ES2: Assess Supplier Performance

ES3: Maintain Source Data

ES4: Manage Product Inventory

ES5: Manage Capital Assets

ES6: Manage Incoming Product

ES7: Manage Supplier Network

ES8: Manage Import/Export Requirements

ES9: Manage Supplier Agreements

Enable Make

EM1: Manage Production Rules

EM2: Manage Production Performance

EM3: Manage Make Information

EM4: Manage In-Process Products (WIP)

EM5: Manage Equipment and Facilities

EM6: Manage Transportation

EM7: Manage Production Network

EM8: Manage Production Regulatory Compliance

Enable Deliver

ED1: Manage Deliver Business Rules

ED2: Assess Delivery Performance

ED3: Manage Deliver Information

ED4: Manage Finished Product Inventories

ED5: Manage Deliver Capital Assets

ED6: Manage Transportation

ED7: Manage Product Life Cycle

ED8: Manage Import/Export Requirements

RETURN

SR1	DR1	SR2	DR2	SR3	DR3
Source Return Defective Product	Deliver Return Defective Product	Source Return MRO Product	Deliver Return MRO Product	Source Return Excess Product	Deliver Return Excess Product

SR1.1: Identify Defective Product Condition	DR1.1: Authorize Defective Product Return	SR2.1: Identify MRO Product Condition	DR2.1: Authorize MRO Product Return	SR3.1: Identify Excess Product Condition	DR3.1: Authorize Excess Product Return
SR1.2: Disposition Defective Product	DR1.2: Schedule Defective Return Receipt	SR2.2: Disposition MRO Product	DR2.2: Schedule MRO Return Receipt	SR3.2: Disposition Excess Product	DR3.2: Schedule Excess Return Receipt
SR1.3: Request Defective Product Return Authorization	DR1.3: Receive Defective Product (includes verify)	SR2.3: Request MRO Return Authorization	DR2.3: Receive MRO Product (includes verify)	SR3.3: Request Excess Product Return Authorization	DR3.3: Receive Excess Product (includes verify)
SR1.4: Schedule Defective Product Shipment	DR1.4: Transfer Defective Product	SR2.4: Schedule MRO Shipment	DR2.4: Transfer MRO Product	SR3.4: Schedule Excess Product Shipment	DR3.4: Transfer Excess Product
SR1.5: Return Defective Product		SR2.5: Return MRO Product		SR3.5: Return Excess Product	

Enable Return

ER1: Manage Business Rules for Return Processes	ER2: Manage Performance of Return Processes	ER3: Manage Return Data Collection	ER4: Manage Return Inventory	ER5: Manage Return Capital Assets
ER6: Manage Return Transportation	ER7: Manage Return Network Configuration	ER8: Manage Return Regulatory Requirements & Compliance		

The SCOR-model:

The Supply-Chain Operations Reference-model (SCOR) is the product of the Supply-Chain Council (SCC), an independent, not-for-profit, global corporation with membership open to all companies and organizations interested in applying and advancing the state-of-the-art in supply-chain management systems and practices.

The SCOR-model captures the Council's consensus view of supply chain management. While much of the underlying content of the Model has been used by practitioners for many years, the SCOR-model provides a unique framework that links business process, metrics, best practices and technology features into a unified structure to support communication among supply chain partners and to improve the effectiveness of supply chain management and related supply chain improvement activities.



For more information:

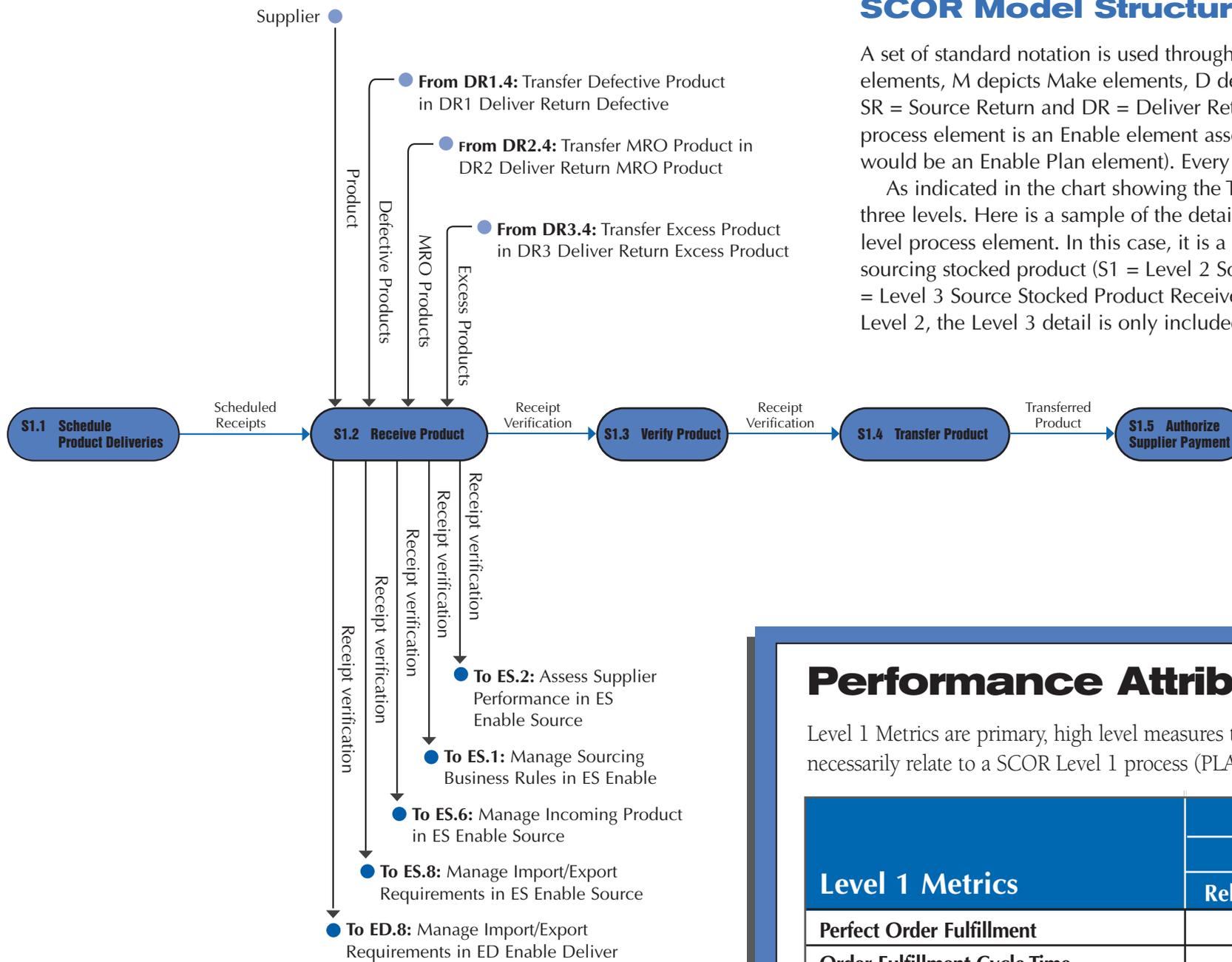
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S1 Source Stocked Product

S1.2 Detail



SCOR Model Structure

A set of standard notation is used throughout the Model. P depicts Plan elements, S depicts Source elements, M depicts Make elements, D depicts Deliver elements, and R depicts Return elements. SR = Source Return and DR = Deliver Return. An E preceding any of the others (e.g., EP) indicates that the process element is an Enable element associated with the Planning or Execution element (in this case, EP would be an Enable Plan element). Every Level 1 Process has Enable Processes associated with it.

As indicated in the chart showing the Three Levels of Process Detail, the Model is hierarchical with three levels. Here is a sample of the detailed workflow for S1.2. S1.2 is a notation that indicates a third level process element. In this case, it is a Source (S = Level 1 Source) element that is concerned with sourcing stocked product (S1 = Level 2 Source Stocked Product) and is specific to receiving product (S1.2 = Level 3 Source Stocked Product Receive Product). Though the other S1 processes are shown here to Level 2, the Level 3 detail is only included for S1.2.

Performance Attributes and Level 1 Metrics

Level 1 Metrics are primary, high level measures that may cross multiple SCOR processes. Level 1 Metrics do not necessarily relate to a SCOR Level 1 process (PLAN, SOURCE, MAKE, DELIVER, RETURN).

Level 1 Metrics	Performance Attributes				
	Customer-Facing			Internal-Facing	
	Reliability	Responsiveness	Flexibility	Cost	Assets
Perfect Order Fulfillment	✓				
Order Fulfillment Cycle Time		✓			
Upside Supply Chain Flexibility			✓		
Upside Supply Chain Adaptability			✓		
Downside 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					✓

Level 1 Metrics

The Level 1 Metrics are the calculations by which an implementing organization can measure how successful they are in achieving their desired positioning within the competitive market space. Most metrics in the Model are hierarchical – just as the process elements are hierarchical. Level 1 Metrics are created from lower level calculations and are primary, high level measures that may cross multiple

SCOR processes. Lower level calculations (Level 2 and 3 metrics) are generally associated with a narrower subset of processes. Level 2 and 3 metrics associated with Level 1 metrics are included in the SCOR 8.0 Appendix A. Additional metrics that do not “roll up” to Level 1 are needed as diagnostics (used to diagnose variations in performance against plan) and are included in the SCOR Process Tables and Glossary.