#### 

# Design-Chain Operations Reference-model



PLAN RESEARCH DESIGN INTEGRATE AMEND



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# The DCOR-model:

**The Design Chain Operations Reference-model (DCOR) 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 and design chain management systems and practices. The newest model from the SCC. the DCOR-model. captures the SCC's Technical **Development Steering Committee's** consensus view of design chain management. The Model's structure is inspired by that of the Supply-Chain Operations **Reference Model (SCOR).** 

While much of the underlying content of the Model was originally developed by practitioners, the DCOR-model provides a unique framework that links business process, metrics, best practices and technology features into a unified structure to support communication among design chain partners and to improve the effectiveness of the extended supply chain.

# DCOR Contains Three Levels of Process Detail



# PLAN

	<b>PP</b> Plan Design Chain	<b>PR</b> Plan Research	<b>PD</b> Plan Design	<b>PI</b> Plan Integrate	<b>PA</b> Plan Amend
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Ŀ	PP.1:	PR.1:	PD.1:	PI.1:	PA.1:
÷.	Gather	Gather	Gather	Gather	Gather
i.	Design Chain	Reserch	Design Chain	Integrate	Amend
i.	Requirements	Requirements	Requirements	Requirements	Requirements
ł	PP.2:	PR.2:	PD.2:	PI.2:	<b>PA.2:</b>
i.	Gather	Gather	Gather	Gather	Gather
I,	Design Chain	Research	Design Chain	Integrate	Amend
ł	Resources	Resources	Resources	Resources	Resources
Ì.	<b>PP.3</b> :	PR.3:	PD.3:	PL3:	PA.3:
÷.	Balance	Balance	Balance	Balance	Balance
i.	Design Chain	Research	Design Chain	Integrate	Amend
I,	Resources with	Resources with	Requirements	Requirements	Requirements
Ŀ	Design Chain	Research	with Resources	with Resources	with Resource
÷	Requirements	Requirements	man nesources	man nesources	With Resource
i.	•	Requirements	PD.4:	PI.4:	PA.4:
i.	PP.4:	PR.4	Establish	Establish	Establish &
I.	Establish &	Establish	Design Plans	Integrate Plans	Amend Plans
1	Communicate	Research Plans			
÷	Design Chain				
i.	Plans				

### RESEARCH

**R2 R1** Research Research Product New Refresh **Product** R1.1: R2.1: Schedule Research Receive and Activites Validate Request R1.2: R2.2: Source Materials Schedule **Research Activities** R1.3: Verify Materials R2.3: Source Materials R1.4: R2.4: Transfer Findings/Materials Verify Materials R2.5: R1.5: **Authorize Supplier** Transfer

Payment (m-t-s)

Findings/Materials **R2.6:** Authorize

**Supplier Payment** 

Research New Technology

R3

**R3.1:** Receive and Validate Request

**R3.2:** Identify Sources for Technology

**R3.3:** Schedule Research Activities

**R3.4:** Source Materials/Technology

#### **Enable Plan**

<b>EP1:</b> Manage Plan Business Rules	<b>EP2:</b> Manage Design Chain Performance	<b>EP3:</b> Manage Plan Information	<b>EP4:</b> Manage Product Lifecycle	<b>EP5:</b> Manage Design Chain Assets
<b>EP6:</b> Manage Design Chain Knowledge Transfer	<b>EP7:</b> Manage Design Chain Configuration	<b>EP8:</b> Manage Plan Regulatory Compliance	<b>EP9:</b> Align Design Chain Unit Plan with Financial Plan	

#### Y Enable Research ER4: ER1: **ER2:** ER3: ER5: Manage Manage Maintain Manage Manage Research Research Research Product Research Capital Assets **Business Rules** Performance Information Lifecycle **ER6: ER7: ER8:** Manage Manage Manage Research Research Research Knowledge Regulatory Network Transfer Requirements

### DESIGN

**D1** Design Product Refresh

**D1.1:** Schedule Design Activities

**D1.2:** Design Prototype

D1.3: Build & Test Prototype

**D1.4:** Package Design

**D1.5:** Release Design to Integrate **D2.1:** Receive, Validate & Decompose Request

**D2.2:** Schedule Design Activities

**D2.3:** Develop Prototype

D2.4: Build & Test Prototype

**D2.5:** Package Design

**D2.6:** Release Design to Integrate D3 Design New Technology

**D3.1:** Receive, Validate & Decompose Request

**D3.2:** Schedule Design Activities

**D3.3:** Acquire Knowledge

**D3.4:** Develop Prototype

**D3.5:** Build & Test Prototype

**D3.6:** Package Design

**D3.7:** Release Design to Integrate

# INTEGRATE

**I 1** Integrate Product Refresh

11.1:

Request

11.2:

I1.3:

11.4:

I1.5:

11.6:

**Pilot Design** 

**Obtain &** 

Integrate

New Product

Validate Design

Package Product

**Release Product** 

Receive & Validate

12 Integrate New Product

12.1:

Request

12.2:

Request

12.3:

12.4:

Design

12.5:

12.6:

Package

Product

12.7:

Release

Product

**Pilot Design** 

Distribute

Requirements

**Receive & Validate** 

Decompose

**Receive & Validate** 

13 Integrate New Technology

**I3.1:** Receive & Validate Request

**I3.2:** Decompose Request

**I3.3:** Distribute Requirements

**I3.4:** Receive & Validate Design

**I3.5:** Establish Execution Processes

**I3.6:** Pilot Design

**I3.7:** Package Product

**I3.8:** Release Product

#### Enable Design

Ì	<b>ED1:</b> Manage Design	<b>ED2:</b> Manage Design	<b>ED3:</b> Manage Design	<b>ED4:</b> Manage Product Life	<b>ED5:</b> Manage Design Capital
1	Business Rules	Performance	Information	Cycle	Assets
2					
11	ED6:	ED7:	ED8:	ED9:	
÷.	Manage	Manage	Manage	Manage	
н.	Design	Design	Design	Intellectual	
1	Knowledge	Network	Regulatory	Property	
٠	Transfer		Compliance		

ľ	Enabl	e Inte	grate		
	<b>EI1:</b> Manage Integrate Business Rules	<b>E12:</b> Manage Integrate Performance	<b>EI3:</b> Manage Integrate Information	<b>E14:</b> Manage Product Life Cycle	<b>EI5:</b> Manage Integrate Capital Assets
	<b>EIG:</b> Manage Integrate Knowledge Transfer	<b>EI7:</b> Manage Integrate Network	<b>EI8:</b> Manage Integrate Regulatory Compliance		

Design New Product

**D2** 

# AMEND

A 1	A2	<b>A3</b>
Amend	Amend	Amend
Product	Deficient	Product
Fallout	Product	Specs
A1.1:	<b>A2.1:</b>	<b>A3.1:</b>
Receive & Validate	Obtain Deficiency	Obtain Specificaton
Request	Information	Information
A1.2:	<b>A2.2:</b>	<b>A3.2:</b>
Decompose	Validate	Validate
New Product	Issue	Issue
<b>A1.3:</b>	A2.3:	A3.3:
Obtain &	Decompose	Decompose
Validate Design	Issue	Issue
A1.4: Pilot Design	A2.4: Distribute Issue	<b>A3.4:</b> Distribute Issue
A1.5: Package Product A1.6: Release Product	<b>A2.5:</b> Publish Advisory	<b>A3.5:</b> Publish SCO

Enable Amend						
<b>EA1:</b> Manage Amend Business Rules Processes	<b>EA2:</b> Manage Amend Performance	<b>EA3:</b> Manage Amend Information	<b>EA4:</b> Manage Product Life Cycle	<b>EA5:</b> Manage Integrate Capital Assets		
<b>EAG:</b> Manage Amend Knowledge Transfer	<b>EA7:</b> Manage Amend Network	<b>EA8:</b> Manage Amend Regulatory Compliance				



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