# Design-Chain Operations Reference-model



PLAN RESEARCH DESIGN INTEGRATE AMEND



# 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

		Level	
	#	Description	Schematic
-model	1	Top Level (Process Types)	Plan Research Design Integrate Amend
Design-Chain Operations Reference-model	2	Configuration Level (Process Categories)	
nain Operatio	3	Process Element Level (Decompose Processes)	
Design-Ch		Chain Requirements Bala	PD1.3 unce Design Chain quirements with Resources  PD1.4 Establish Design-Chain Plans
Not in Scope	4	Implementation Level (Decompose Process Elements)	

## PLAN

#### Plan Plan Design Research Chain PP.1: PR.1: Gather Gather **Design Chain** Reserch Requirements Requirements **PP.2**: PR.2: Gather Gather **Design Chain** Research Resources Resources PP.3: PR.3: Balance **Balance Design Chain** Research Resources with Resources with **Design Chain** Research Requirements Requirements PP.4: PR.4

Establish &

Plans

Communicate

**Design Chain** 

Establish

Research Plans

# PD PI PA Plan Plan Plan Design Integrate Amend

#### Pl.1: PD.1: Gather Gather **Design Chain** Integrate Requirements Requirements PI.2: PD.2: Gather Gather Design Chain Integrate Resources Resources

PD.3:

**Balance** 

PD.4:

Establish

**Design Plans** 

**Design Chain** 

Requirements

with Resources

#### PI.3: Balance Integrate Requirements with Resources

# PI.4: PA.4: Establish & Integrate Plans Amend Plans

PA.1:

Gather

Amend

PA.2:

Gather

Amend

PA.3:

**Balance** 

Amend

Requirements

with Resources

Resources

Requirements

## RESEARCH

R1 Research Product Refresh	R2 Research New Product	R3 Research New Technology		
R1.1: Schedule Research Activites R1.2: Source Materials R1.3: Verify Materials R1.4:	R2.1: Receive and Validate Request  R2.2: Schedule Research Activities  R2.3: Source Materials	R3.1: Receive and Validate Request R3.2: Identify Sources for Technology R3.3: Schedule Research Activities		
Transfer Findings/Materials  R1.5: Authorize Supplier Payment (m-t-s)	R2.4: Verify Materials  R2.5: Transfer Findings/Materials  R2.6: Authorize	R3.4: Source Materials/Technology		

**Supplier Payment** 

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

ER1:	ER2:	ER3:	ER4:	ER5:
Manage	Manage	Maintain	Manage	Manage
Research	Research	Research	Product	Research
<b>Business Rules</b>	Performance	Information	Lifecycle	Capital A
ER6:	ER7:	ER8:		
Manage	Manage	Manage		
Research	Research	Research		
Knowledge	Network	Regulator	y	
Transfer		Requirem		

**D1** Design **Product** Refresh

**D2** Design New **Product** 

**D3** Design New **Technology** 

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

D3.1:

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 Product** Refresh

12 **Integrate** New **Product** 

13 **Integrate** New **Technology** 

11.1:

Receive & Validate Request

I1.2:

Integrate **New Product** 

I1.3:

Obtain & Validate Design

I1.4:

Pilot Design

I1.5:

**Package Product** 

I1.6:

**Release Product** 

12.1:

Receive & Validate Request

12.2:

Decompose Request

12.3:

Distribute Requirements

12.4:

Receive & Validate Design

12.5:

**Pilot Design** 

12.6:

**Package Product** 

12.7:

Release **Product**  13.1:

Receive & Validate Request

13.2:

Decompose

Request

13.3:

Distribute Requirements

**I3.4**:

Receive & Validate Design

**Establish Execution Processes** 

13.6: **Pilot Design** 

13.7:

**Package Product** 

13.8: Release **Product** 

## **Enable Design**

ED1: Manage Design **Business Rules** Performance

ED6: **ED7**: Manage Manage Design Design Knowledge Network Transfer

ED2: Manage Design

ED3: Manage Design Information

**ED8**:

Manage

Design

Regulatory

Compliance

**ED4**: Manage **Product Life** Cycle

ED5: Manage Design Capital **Assets** 

ED9:

Manage Intellectual **Property** 

## **Enable Integrate**

EI1: Manage Integrate **Business Rules** 

EI2: Manage Integrate Performance EI3: Manage Integrate

Information

Manage **Product Life** Cycle

EI4:

Manage Integrate **Capital Assets** 

EI5:

EI6:

Manage Integrate Knowledge

Transfer

**EI7:** Manage Integrate Network

EI8: Manage Integrate

Regulatory Compliance

Amend **Product Fallout** 

Amend **Deficient Product** 

**A3 Amend Product Specs** 

A1.1:

Receive & Validate Request

A1.2:

Decompose **New Product** 

A1.3:

Obtain & Validate Design

A1.4: **Pilot Design** 

A1.5: **Package Product** 

A1.6:

**Release Product** 

**A2.1:** Obtain Deficiency Information

A2.2:

Validate Issue

A2.3:

Decompose Issue

A2.4:

Distribute Issue

A2.5: **Publish** Advisory A3.1:

**Obtain Specification** Information

A3.2: Validate

Issue

A3.3:

Decompose Issue

A3.4:

Distribute Issue

A3.5: **Publish** 

SCO



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# **Enable Amend**

EA1: Manage Amend **Business Rules Processes** 

EA2: Manage Amend Performance

EA3: Manage Amend Information EA4: Manage **Product Life** Cycle

EΔ5: Manage Integrate Capital Assets

EA6: Manage Amend Knowledge Transfer

EA7: Manage Amend

**EA8:** Manage Amend Network Regulatory Compliance