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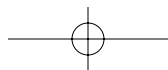
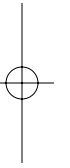
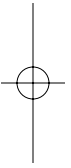
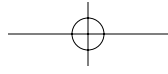


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## Introduction to M4SC

M4SC (Management for Supply Chain) is the framework for Supply Chain Management developed for Supply Chain Council. M4SC begins to demonstrate how to implement SCOR tools, techniques, and templates throughout your organization, not just at a project level. SCM process categories, also called “layers”, in M4SC are Strategy, Network, Process and Resource. Processes in M4SC are focused on managing the operations defined in the other frameworks, so they look at how well supply chain management processes are performing.

SCOR practices and measurements can be used in all of these M4SC layers to manage your organization’s supply chain operations. The M4SC framework is an addition to the “family” of SCC frameworks, so processes already housed in SCOR and other frameworks – DCOR, CCOR, PLCOR – are not also part of M4SC, but they do trigger or have inputs/outputs with M4SC. Supply Chain Management is integrated into a Business.


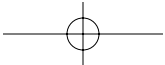
- A business, at a very high level, can be thought of as a set of processes developed to successfully execute a customer-focused value proposition. The business supply chain begins and ends with the customer.
- Supply Chain Management (SCM) is an essential practice in a business to ensure that the supply chain is operating as efficiently and effectively as possible and generating the highest level of customer satisfaction at the lowest cost.

Successful SCM needs to align and interact with many other functions in the business, categorized here as Product Design (DCOR framework processes), Sales & Customer Support (CCOR framework processes), and Product & Portfolio Management (PLCOR framework processes). SCM also must align and interact with many other business areas such as HR, IT, and Finance. In this framework, SCM processes that involve these outside disciplines are not in scope, though locations for triggers/inputs/outputs and other high impact interactions from these areas may be marked in the framework. The M4SC framework is integrated with the overall business strategy/planning environment of a company, so there is clear input from these areas into M4SC. In this first version of M4SC, the framework is not extensively explored. Supply Chain Council has launched the first volunteer teams of interested supply chain professionals who have experience in managing supply chains to further develop the M4SC framework. Teams are initially formed around the M4SC layers, but this may change as the framework progresses.

The M4SC framework is organized around four key layers.

The "Supply Chain Strategy" layer focuses on the alignment of supply chains with customer-facing and internal-facing performance requirements of a given set of supply chains supporting a business model, or business plan. Typically, this is part of an overall large-scale planning (strategy) process undertaken on an annual basis with a multi-year horizon of design. The focus is on concrete definition of a set of supply chains, their segment-driven distinct performance priorities (strategy), and determination of gaps in existing definition against future requirements.

The "Supply Chain Network" layer focuses on the optimal deployment (configuration) of major

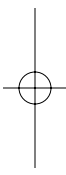
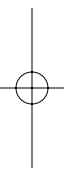


material resources within one or more supply chains, and the determination of that configured network's ability to support strategic performance requirements. Typically, this is part of a detailed planning process that is undertaken on an annual basis with a possible multi-year horizon of design. It is distinct from "Supply Chain Strategy" in that it assumes prior definitions of supply chains and requirements, and looks only at assessment, and possible redesign of physical material flows.

The "Supply Chain Process" layer focuses on the optimal deployment of supply chain processes within various elements of a supply chain network – plants, warehouses, depots, planning teams, channel partners, suppliers, and so forth. It is focused on the achievement of local performance requirements determined by the network configuration. Typically this is managed at the asset level (plant manager), and day-to-day performance requirements are determined by network requirements, and adjusted on a frequent (quarterly, monthly) basis to meet key goals.

Finally "Supply Chain Resource" layer focuses on the optimal deployment of key resources – staffing, materials, production equipment, IT automation – in support of process specific performance. It is typically reviewed and controlled frequently at the line-manager or process manager level.

Supply chain professionals interested in volunteering to work on developing the next version of the M4SC framework may sign up here on the SCC website: [supply-chain.org/register/874](http://supply-chain.org/register/874)



# Supply Chain Management

M4SC describes the activities associated with the management of supply chains. Management includes the governance and corrective activities to ensure a supply chain operates optimally in support of internal and external needs and expectations. The framework consists of 4 key areas ('layers'):

- Strategy - Align and communicate supply chain performance goals in support of business goals and requirements.
- Network - Align the network of suppliers, partners, facilities and capabilities to supply chain goals and requirements.
- Processes - Align supply chain processes and process performance to meet supply chain network goals and requirements.
- Resources - Align supply chain resources with process and network goals and requirements.

M4SC is a management framework that consists of tools and techniques used by companies that manage supply chains well.

Hierarchy	
mAS	Align Strategy
mAN	Align Network
mAP	Align Processes
mAR	Align Resources

## mAS

## Align Strategy

The collection of processes required to derive/align the supply chain strategy from/to the business strategy incorporated in the business plan. Strategy supply chain management processes include supply chain segmentation and prioritization; analysis of the competitive landscape, organization, strategy, and metrics; definition of the network and SCORcards; collection of data; and performance of benchmarking and gap analysis.

### Hierarchy

mAS.01	Business Plan Analysis
mAS.02	Supply Chain Discovery
mAS.03	Supply Chain Segmentation
mAS.04	Supply Chain Prioritization
mAS.05	Competitive Landscape Analysis
mAS.06	Supply Chain Organizational Analysis
mAS.07	Supply Chain Strategy Analysis
mAS.08	Supply Chain Network Definition
mAS.09	Scorecard Definition
mAS.10	Supply Chain Data Collection
mAS.11	Supply Chain Benchmarking
mAS.12	Metrics Organizational Analysis
mAS.13	Supply Chain Gap Analysis





## mAS.01

# Business Plan Analysis

The activities associated with gathering and interpreting business plan information, including vision, mission, charter, plans (volume, growth, width, depth), management objectives, markets, products, customers, competitors, growth plans, and product positioning.

An organization's business plan provides a communication vehicle that structures the thinking about vision, mission, and charter of an enterprise, and then articulates the approach to supplying markets with products and services with the objective of specific financial goals. Competitive analysis, timeline, funding, and management objectives are usually included.



## mAS.02

# Supply Chain Discovery

The activities associated with identifying and defining existing physical supply chains of a business. A physical supply chain is a unique geography/product/market/customer combination for the fulfillment of customer orders.

The purpose of supply chain discovery is to identify all existing fulfillment models within a business and serve as the input to the supply chain segmentation process.

Supply chains are the totality of processes spanning operations from supplier to end-customer, focused on material, work and information flows. Tools such as the supply chain segmentation matrix can be used to identify and define these supply chains within an enterprise.

Inputs: Business plan.

Tools: Supply chain segmentation matrix.

## mAS.03

# Supply Chain Segmentation

The activities associated with dividing a business into subsets ('supply chains') of product/market combinations that have common needs. Supply chain segmentation is dependent upon product segmentation and market segmentation strategies and typically involves understanding product and market characteristics. The purpose of supply chain segmentation is to strategize the distinct physical supply chains that are grouped together and managed as one. The grouping is generally based on product and market features and requirements:

- Product: Type (discrete/process), make/buy, process capabilities (MTS/MTO/ETO), geography, technology.
- Market: Customer types (consumer/B2B/enterprise/government/etc), customer needs (cycle time/cost/reliability), geography.

Inputs: Business plan, physical supply chains identified.

Tools: Supply chain segmentation matrix.

Comments: Incomplete or improper identification of physical supply chains may result in conflicting requirements for supply chains.



## **mAS.04**

## Supply Chain Prioritization

The activities associated with determining the relative importance of supply chains and assignment of strategy management resources. Not all supply chains are of equal value to an organization. A supply chain prioritization matrix is a tool to order supply chains according to relevance, and to facilitate the selection of key supply chains for consideration in later management phases.

Input: Supply chains identified in supply chain segmentation.

Tools: Supply chain prioritization matrix.

## mAS.05

# Competitive Landscape Analysis

The activities associated with gathering information and analysis of the internal and external environment in which the supply chain operates. Typically this includes information about strengths, weaknesses, threats, opportunities for economic, social, political, technological, environmental and/or legal factors.

Tools like the SWOT analysis help identify areas for improvement (Opportunities). During the SWOT analysis the team reviews strengths and weaknesses of the supply chain (both are internal) and external threads. The strengths, weaknesses and threats are translated to opportunities.

Inputs: Business Plan, Supply chains identified in supply chain segmentation.

Tools: SWOT analysis, PEST(LE), 6-forces model, context analysis.



## **mAS.06**

# Supply Chain Organizational Analysis

The activities associated with reviewing the roles and responsibilities at the supply chain level. Example tools include: RACI/ARCI, CAIRO, DACI charts.

A RACI chart defines roles and responsibilities for supply chains for the purposes of analyzing conflicts, deficits, and to clarify for communication where various input/outputs are required.

Input: Supply chains identified in supply chain segmentation.

Tools: RACI/ARCI charts, CAIRO charts, DACI charts.



## **mAS.07**

# Supply Chain Strategy Analysis

The activities associated with determining the relative and/or ranked importance of performance attributes as required by internal and external customers. Typical performance goals include: Superior, Advantage and Parity. Supply chain strategy is established by supply chain. A strategic analysis matrix is a tool to define the strategic priorities of a supply chain.

Input: Supply chains identified in supply chain segmentation.

Tools: Strategic analysis matrix.

Comments: Without clearly defined supply chains, strategies may create conflicting priorities in aggregate supply chains.



## **mAS.08**

# Supply Chain Network Definition

The activities associated with gathering and documenting the current state flow of materials and high-level process capabilities - the 'supply chain network'. This typically includes suppliers, customers, factories, warehouses, distribution centers and other entities involved in the planning, sourcing, making, delivery and return of products. For each entity or node list the process capabilities.

Inputs: Supply chains identified in supply chain segmentation.

Tools: Geographic maps, logical material flow maps.



## mAS.09

## Scorecard Definition

The activities associated with the selection of the key metrics for each performance attribute for each supply chain. A SCORcard™ is used to define the metrics of most interest to an organization, to arrange them by area of impact, by strategic linkage, and to provide a container for later benchmarking comparisons. Each SCORcard™ is built from a subset of hundreds of SCOR metrics.

Inputs: Supply chains identified in supply chain segmentation, supply chain strategy, supply chain network definition.

Tools: SCOR metrics.

Comments: Without clearly defined supply chains, SCORcards may contain aggregate data of conflicting supply chain types e.g. MTO (make-to-order) and MTS (make-to-stock) together. Without strategy, metrics chosen are not clearly linked to strategic priorities. SCOR provides all necessary definitions.



## **mAS.10**

## Supply Chain Data Collection

The activities associated with the collection of performance data for the SCORcard by supply chain. Reporting tools can standardize and automate these processes.

Inputs: Supply chains identified in Supply Chain Segmentation, SCORcard definition, Supply chain material flow maps.

Comments: Some companies can collect this information in minutes, other require IT or Financial resources to be made available. Don't wait for the perfect - 100% compliance to the definition is less important than having useful data. It is recommended to use transactional data, not to aggregate data.

## mAS.11

# Supply Chain Benchmarking

The activities associated with collecting data, submitting/calculating data and analysis of benchmark information for key metrics for each supply chain. Supply chain benchmarking is performed for high-level metrics (level-1, some level-2 metrics) as part of strategy management only: Strategy is set by means of high-level metrics only (For example: Order Fulfillment Cycle-time, not 'the time it takes to enter an order').

Benchmarking involves reviewing key performance indicators (KPIs) for a supply chain against internal supply chains (peer benchmarking), or external competitive data (competitive benchmarking), with a goal of understanding potential KPI targets, and gaps in performance.

Inputs: SCORcard, Historic (internal) data, External benchmarking data sources.

Tools: SCORmark.

Comments: Without Supply Chain Segmentation, benchmarking is performed on aggregate data potentially providing misleading results. Benchmarking with external data without understanding internal performance may create credibility gaps.



## **mAS.12**

## **Metrics Organizational Analysis**

The activities associated with reviewing the roles and responsibilities for the (high-level) metrics. Example tools include: RACI/ARCI, CAIRO, DACI charts.

A RACI chart defines roles and responsibilities for supply chain KPI's for the purposes of analyzing conflicts, deficits, and to clarify for communication where various input/outputs are required.

Inputs: Supply chains identified in Supply Chain Segmentation, SCORcard, Organization charts.

Tools: RACI/ARCI charts, CAIRO charts, DACI charts.



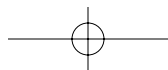
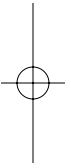
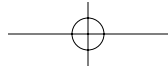
## mAS.13

# Supply Chain Gap Analysis

The activities associated with identification and prioritization of gaps in performance of high-level metrics for each supply chain. This includes identification and prioritization of corrective actions and communication of performance improvement goals.

Benchmarking is valuable to the degree that it illuminates or creates business decisions. The business decision here is to identify the gaps in performance and what corrective actions to take. Example corrective actions include: change in supply chain performance targets, change in individual performance targets, reassign ownership.

Inputs: Supply chains identified in Supply Chain Segmentation, Benchmark results, Competitive Landscape Analysis, Organizational Analyses.



## mAN

## Align Network

The collection of processes required to maintain supply chain networks in support of the supply chain strategy. Supply chain network management processes include network level process flow modeling, network analysis, roles and responsibilities assessment, network design and validation.

Hierarchy	
mAN.01	Supply Chain Strategy Analysis
mAN.02	Supply Chain Network Definition
mAN.03	Network Process Flow Definition
mAN.04	Network Organizational Analysis
mAN.05	Network Standardization Analysis
mAN.06	Network Constraints Analysis
mAN.07	Network Performance Analysis
mAN.08	Network Metric Prioritization
mAN.09	Network Solution Definition
mAN.10	Supply Chain Network Definition
mAN.11	Supply Chain Network Validation
mAN.12	Network Change Prioritization



**mAN.01**

## Supply Chain Strategy Analysis

The activities associated with the gathering and interpretation of supply chain strategy information. The purpose of Supply Chain Strategy Analysis is to understand the supply chains defined in the strategy layer and the prioritized performance gaps. Information collected includes: Supply chain definitions, strategic goals and priorities by supply chain.

Input: Supply chain strategic goals, Gaps in supply chain performance.



## mAN.02

# Supply Chain Network Definition

The activities associated with gathering and documenting the current state flow of materials and high-level process capabilities - the 'supply chain network'. This typically includes suppliers, customers, factories, warehouses, distribution centers and other entities involved in the planning, sourcing, making, delivery and return of products.

For each entity or node list the process capabilities. Example tools to document the network include:

- Geographic maps
- Logical material flow maps

Inputs: Supply chains identified in Supply Chain Segmentation, Supply chain strategy analysis.

## mAN.03

# Network Process Flow Definition

The activities associated with the gathering and interpretation of high level processes, work and information flows. The purpose of Network Process Flow Definition is to get a comprehensive understanding of the high level work and information flows in your supply chain and the connections and process interdependencies in your supply chain. Information collected includes: Nodes, processes, connections and interdependencies.

Inputs: Supply Chain Geographic Maps, Logical Material Flow Maps.

Tools: SCOR Thread Diagrams, Value Stream Maps.

Comments: The scope of the Value Stream Maps at this point should capture the total supply chain, not just a single entity or node. Material flow maps connect nodes of a supply chain, Thread diagrams connects processes. Thread diagrams can help clarify where the process is changes from customer order driven to plan driven (the order decoupling point).

## **mAN.04**

# Network Organizational Analysis

The activities associated with reviewing the roles and responsibilities at the network node level.

The objective of Network Organizational Analysis is to document roles and responsibilities for nodes and high level processes across the supply chain network for the purposes of analyzing conflicts and deficits, and to clarify for communication where various inputs/outputs are required.

Inputs: Geographic maps, Logical Material Flow Maps, Value Stream Maps, SCORcard.

Tools: RACI/ARCI charts, CAIRO charts, DACI charts.

Comments: Without properly documented Geographic maps, Logical Material Flow Maps and/or Value Stream Maps, nodes and processes may be unidentified.

## mAN.05

# Network Standardization Analysis

The activities associated with the collection, validation and comparison of network-level practices to a baseline for standardization. This includes assessing the maturity (read: level and effectiveness) of the implementation of the 'standard' process.

The purpose of Network Standardization Analysis is to determine if and at what level the network configuration and the high level processes meet standardization requirements. It also assesses the maturity of the process category as a whole and provides a starting point for assessing potential improvements on supply chain processes.

Example approaches include: Best practice assessments, practice or process benchmarking.

A Best Practice Assessment reviews preferred, best or desired practices for level-2 processes (e.g. sP1, sS1, sM2, sD3), and assess relevancy, degree of implementation.

Inputs: Geographic maps, Logical Material Flow Maps, Value Stream Maps.

Comments: Without properly documented Geographic maps, Logical Material Flow Maps and/or Value Stream Maps, nodes and processes may be unidentified.

## mAN.06

# Network Constraints Analysis

The activities associated with the gathering and determination whether the network configuration is capable of servicing its customers in its current configuration.

The purpose of Network Constraints Analysis is to determine whether the network is capable to service its customers in its current configuration – e.g. meeting lead time, cost, inventory strategic goals. It serves as a first pass of performance analysis/root causing. This is a collection of (heuristic) calculations/tools.

Inputs: Supply chain network definitions (Geographic maps, Logical Material Flow Maps, Value Stream Maps, SCOR Thread diagrams), Supply Chain Strategy Analysis.

Tools: Grid analysis, heuristical gravity modeling, network modeling software.

Comments: The complexity of the network determines the complexity of the calculations, for more complex networks software may be required to process the large amount of information and possible scenarios. Over-complicating the problem may result in analysis paralysis. (Consider statistical perfection versus directional accuracy).

## mAN.07

# Network Performance Analysis

The activities associated with the gathering and analysis of performance gaps within the network. Information collected includes: Performance (metrics) by node and high-level process in the network. Example methods include: Metrics decomposition, scorecard drill-down.

The purpose of Network Performance Analysis is to identify the processes that have the highest contribution to the overall performance gap.

Inputs: Supply chain network definitions (Geographic maps, Logical Material Flow Maps, Value Stream Maps, SCOR Thread diagrams), SCORcard.

Comments: Without properly documented Geographic maps, Logical Material Flow Maps and/or Value Stream Maps, processes may not be properly identified. Over-complicating the problem may result in analysis paralysis. (Consider statistical perfection versus directional accuracy).



## **mAN.08**

## Network Metric Prioritization

The activities associated with the determination which metrics will be further analyzed. The purpose of this prioritization process is to ensure the organization is focused on the metrics that have (the highest) impact on the overall performance gap (i.e. cascading the performance goals into the organization). Determine where our interests will be focused for subsequent analysis.

Inputs: Geographic maps, SCORcard, Metrics decomposition.

Tools: Pareto Analysis.



## mAN.09

## Network Solution Definition

The activities associated with the discovery, evaluation and selection of new ways (practices) to organize the network, with the purpose to reduce or eliminate the gap in overall supply chain performance. Example practices include: adding, changing or deleting nodes, adding, changing or deleting high-level processes. This includes automation, outsourcing, insourcing.

Example methods to discover and evaluate new ways include: brainstorming/affinity diagramming, consulting/research input, practices benchmarking.

Inputs: Thread diagram, Pareto analysis from Network Metrics Prioritization.





## mAN.10

# Supply Chain Network Definition

The activities associated with developing and documenting the future state flow of materials and high-level process capabilities - the 'to-be' supply chain network. This includes documenting suppliers, customers, factories, warehouses, distribution centers and other entities involved in the planning, sourcing, making, delivery and/or return of products, and their relationships and the associated high-level processes, work and information flows.

The purpose of Supply Chain Network Definition is to capture and test the proposed network configuration.

Example tools include: Material flow diagrams, SCOR thread diagrams.



## **mAN.11**

# Supply Chain Network Validation

The activities associated with the testing and verification of proposed network changes. This includes testing functional design and verification against business policies, objectives and other decision criteria.

Inputs: Supply chain definition, Subject matter experts.

Tools: Risk Scenario Testing, Environmental Impact Study, Simulation.

## mAN.12

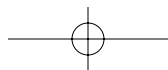
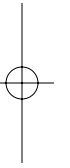
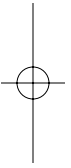
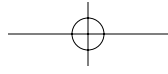
# Network Change Prioritization

The activities associated with the assessment, ranking, justification and communication of network changes. Information collected/required includes: cost projections, risk assessments, performance improvement projections, business environment, internal priorities, supply chain strategy, budgets.

Example methods include: Cost/benefit analysis, Return-on-Investment analysis, Risk-Return analysis

Inputs: To-Be Network Definition, Practice assessment, Grid Analysis, RACI Analysis.

Comments: Credibility of Cost Benefits Analysis increases with participation of financial team, controller or accountancy.



## mAP

## Align Processes

The collection of processes required to maintain supply chain performance within the supply chain network. Supply chain process management processes include process data collection, process performance analysis, process design and validation.

Hierarchy	
mAP.01	Supply Chain Network Definition
mAP.02	Process Flow Definition
mAP.03	Process Data Collection
mAP.04	Process Organizational Analysis
mAP.05	Process Standardization Analysis
mAP.06	Process Performance Analysis
mAP.07	Process Solution Definition
mAP.08	To-Be Process Definition
mAP.09	To-Be Process Verification
mAP.10	Business Rules Impact Assessment
mAP.11	Organizational Impact Assessment
mAP.12	Process Change Prioritization



## mAP.01

# Supply Chain Network Definition

The activities associated with developing and documenting the consensus view of the flow of materials and high-level process capabilities - the current state 'as-is' or proposed 'to-be' supply chain network. This includes documenting suppliers, customers, factories, warehouses, distribution centers and other entities involved in the planning, sourcing, making, delivery and/or return of products, and their relationships and the associated high-level processes, work and information flows. This includes obtaining performance goals for individual high-level processes.

Inputs: List of prioritized network and high-level process changes.

Tools: Material flow diagrams, SCOR thread diagrams.



## mAP.02

## Process Flow Definition

The activities associated with the discovery, gathering and documentation of detailed processes, work and information flows. Information collected includes: Processes, Actors (who performs the work) flows and sequence.

The purpose of Process Flow Definition is to identify what processes are performed and who performs the work.

Inputs: Thread diagrams, Geographic maps.

Tools: Tag-yourself-to-an-order, Workflow diagrams, Value stream maps.

Comments: Without Process Flow Definition and Process Data Collection Worksheet, Value Stream Analysis must be done on an ad-hoc basis, and processes may be omitted.



## mAP.03

## Process Data Collection

The activities associated with collecting and documenting comprehensive process information for detailed analysis. Information collected includes: activities, inputs, outputs, duration, errors, disconnects, practices, skills required, who are accountable, responsible, consulted and/or informed, technology, location.

Inputs: Thread diagram, Geographic maps.

Tools: Data collection template, Interviews, Group interviews, Process data collection sheets, Value stream maps.

Comments: Without Process Flow Definition and Process Data Collection Worksheet, Value Stream Analysis must be done on an ad-hoc basis, and processes may be omitted.





## **mAP.04**

## Process Organizational Analysis

The activities associated with reviewing the roles and responsibilities at the detailed process level. The purpose of Process Organizational Analysis is to document roles and responsibilities for individual processes in the supply chain.

A RACI chart defines roles and responsibilities for supply chains for the purposes of analyzing conflicts, deficits, and to clarify for communication where various input/outputs are required.

Inputs: Process data collection worksheets.

Tools: RACI/ARCI, CAIRO, DACI charts.

## mAP.05

# Process Standardization Analysis

The activities associated with the collection, validation and comparison of detailed process-level practices to a baseline for standardization. This includes assessing the maturity (read: level and effectiveness) of the implementation of the 'standard' process. The purpose of Process Standardization Analysis is to determine if and at what level the process configuration and detailed processes meet standardization requirements.

Inputs: Process data collection worksheets.

Tools: Best practice assessments, practice or process benchmarking.

Comments: Without the Process flow definition and/or Process data collection worksheets, processes may be omitted from this assessment.

## mAP.06

# Process Performance Analysis

The activities associated with developing a hypothesis and data collection plan, data collection, sorting, grouping and verification of information to identify the root causes of gaps in process performance. Performance analysis differs by metric and depends on availability of data. Some analysis will be based on statistics, most are based on empirical evidence. Some data may be more easily accessible.

Inputs: Subject matter experts, Process flow definition, Process data collection worksheets.

Tools: Value Stream Maps, Process Cycle Efficiency (PCE) analysis, time/space studies, activity based costing, quality audits.

Comments: Without the Process flow definition and/or Process data collection worksheets, processes may be omitted from analysis.



## mAP.07

## Process Solution Definition

The activities associated with the discovery, evaluation and selection of new ways (practices, processes, technology) to organize individual processes, with the purpose to reduce or eliminate the gap in overall supply chain performance. Example changes include: adding, changing or deleting detailed process steps. This includes automation, standardization of process, training.

Example methods to discover and evaluate new ways are: brainstorming/affinity diagramming, consulting/research input, practices benchmarking.

Inputs: Thread diagrams, Practices assessment.

## **mAP.08**

### To-Be Process Definition

The activities associated with developing and documenting the future state detailed process steps and information flows - the 'to-be' process. This includes documenting activities, inputs, outputs, duration, practices, skills required, who are accountable, responsible, consulted and/or informed, technology, location.

Inputs: Process data collection worksheets (As-Is), Practices assessment, Process performance analysis results.

Tools: Workflow diagrams, Process data collection worksheets.

## mAP.09

### To-Be Process Verification

The activities associated with developing and implementing tests to verify the proposed process changes can be implemented. Verification generally consists of three types of tests: feasibility (is it possible to implement), desirability (is it aligned with internal/external policies) and scalability (is it able to support the required number of transactions).

Inputs: Subject matter experts, SCORcard, Process data collection worksheets, Process flow definition.

Tools: Conference room pilots, process walkthroughs (Tag-Yourself-To-An-Order), simulation.

Comments: Without properly documented processes, Simulation must be done on an ad-hoc basis, and processes may be omitted.



## **mAP.10**

## **Business Rules Impact Assessment**

The activities associated with determining and documenting the impact of process (and network) changes on business rules and regulatory requirements. Business rule changes impact automation (parameters) and work instructions (business rules).

Inputs: Process data collections worksheets.

Comments: Lack of proper business rules may result in failure to change a process.



## mAP.11

# Organizational Impact Assessment

The activities associated with determining and documenting the impact of process (and network) changes on resources and skills. The purpose of an Organization Impact Assessment is to determine the high-level training, hiring and re-deployment requirements to support the process and network changes.

Inputs: Subject matter experts, Process flow definition, Process data collection worksheets.

Tools: SCOR Skills Assessment.

Comments: Without the Process flow definition and/or Process data collection worksheets, processes or critical resources may be omitted from analysis.





## **mAP.12**

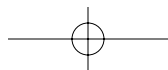
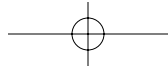
## Process Change Prioritization

The activities associated with the assessment, ranking, justification and communication of network and process changes. Information collected/required includes: cost projections, risk assessments, performance improvement projections, business environment, internal priorities, supply chain strategy, budgets.

Inputs: Practices analysis, Skills and resources analysis.

Tools: Cost/benefit analysis, Return-on-Investment analysis, Risk-Return analysis.

Comments: Credibility of Cost Benefits Analysis increases with participation of financial team, controller or accountancy.



## mAR

## Align Resources

The collection of processes required to maintain supply chain resources in support of supply chain processes. Supply chain resource management processes include skills and resource assessments and training, hiring and redeployment planning.

### Hierarchy

mAR.01	Network/Process Change Portfolio Analysis
mAR.02	Skills and Resource Assessment
mAR.03	Process Documentation Assessment
mAR.05	Organization Assessment
mAR.04	Technology Assessment
mAR.06	Resource Program Planning
mAR.07	Resource Change Prioritization



## **mAR.01**

## **Network/Process Change Portfolio Analysis**

The activities associated with gathering and analyzing information on changes in supply chain strategy, network changes and process changes that may impact supply chain resources. The purpose of Network/Process Change Portfolio Analysis is to determine if conditions have changed that require changes in resources - Resources include: people, technology, procedures, organization.

Inputs: Process change prioritizations, Process change documentation, Organizational impact analysis documentation.

Comments: Changes in availability of existing resources may also trigger a re-analysis.

## mAR.02

# Skills and Resource Assessment

The activities associated with gathering, analysis and documenting training, hiring and redeployment requirements. The purpose of Skills and Resource Assessment is to determine the net changes in the skills and resources to support process, network and supply chain requirements.

Skills and Resource Assessment includes documenting the skills required to perform the processes and documenting the 'inventory' of skills. Determine gaps between required and available skills.

Inputs: Organizational impact documentation, 'To Be' RACI chart.

Comments: Skills re-assessments may be driven by changes in supply chain strategy, network changes, process changes and changes in available resources (or skills).



## **mAR.03**

## Process Documentation Assessment

The activities associated with identification and documentation of critical repeatable procedures required for targeted process performance. The purpose of Process Documentation Assessment is to identify changes to standard operating procedure system and/or quality management system. Activities include documenting, communicating and educating affected groups.

Inputs: Prioritized process changes.

Comments: Lack of a complete view of prioritized process changes will result in possible lack of complete coverage of new procedures.

**mAR.04**

## Technology Assessment

The activities associated with identification of gaps in technology supporting the supply chain. The purpose of the Technology Assessment is to determine the actions needed to address gaps in technology - facilities, equipment and ICT (Information, Communications Technology).

Inputs: Prioritized process changes, Project/program repositories, Capital investment plans, Outsourcing plans.

Comments: No standards exist, but consider reviewing existing internal processes for assessing: Capital assets, Information systems, Outsourcing.



## mAR.05

## Organization Assessment

The activities associated with identification and documentation of changes to organizations resulting from the focus on required process performance. This includes alignment of organizations to enterprise business rules, and highlighting gaps in the model.

Inputs: Training plans, hiring plans and redeployment plans from Skills and Resource Assessment

Comments: Without changes identified in Skills and Resource Assessment, changes are not strictly necessary to contemplate.



## **mAR.06**

# Resource Program Planning

The activities associated with developing a comprehensive plan to drive the changes through the organization. Elements of such plan include:

- Hiring, training and redeployment of staff
- Deployment, upgrading or retirement of facilities, equipment and ICT assets
- Changes to processes and procedures
- Organizational changes

Inputs: Training plans, hiring plans, redeployment plans, Capital investment plans, ICT programs.

## mAR.07

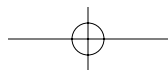
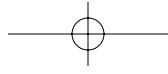
# Resource Change Prioritization

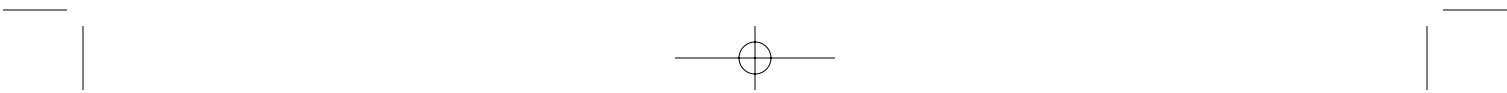
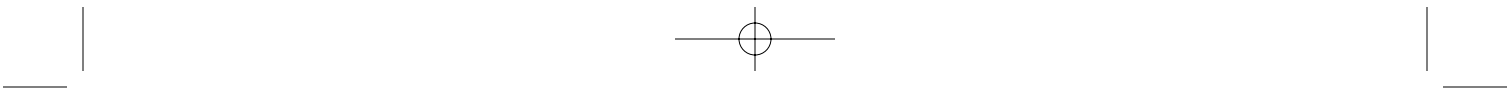
The activities associated with the assessment, ranking, justification and communication of resource changes. Information collected/required includes: cost projections, risk assessments, performance improvement projections, business environment, internal priorities, supply chain strategy, budgets.

Example methods include: Cost/benefit analysis, Return-on-Investment analysis, Risk-Return analysis

Inputs: Resource change program, Supply chain strategy, Supply chain performance gaps.

Comments: Credibility of Resource Change Prioritization increases with participation of financial team, controller or accountancy.





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