

## Certified In Planning & Inventory Management

(Preparation to APICS CPIM -international version)

The digital transformation of companies is based on a revisited customer experience. And every opportunity is exploited and potentially returned as a constraint to the manufacturing system.

Planning & Inventory Management must strategically consider this situation to access to the required agility level all in improving flows performance.

### AUDIENCE

- Any person in relation to flow management (upstream, intra-company, or distribution)
- Anyone concerned with industrial performance and projects involving the integration of different actors around operations Management and the Supply Chain approach.

### PREREQUISITES

- Participant should be fluent in industrial business English.
- The candidate masters the fundamentals of supply chain management and demonstrate 3 years minimum of experience in the field of Operations /Flows management
- Have the ability to schedule work and personal time for exam preparation (approx. 3 hrs. per week).
- Have a ASCM profile (ASCM ID)

### DURATION

69 h.: Alternation of face-to-face sessions (3 days - 22.5 hours), group videoconferencing (17.5 hours) and self-learning module (25.5 hours) + exam (3.5 hours)

### TARGET SKILLS (LEARNER'S TRAINING OBJECTIVE)

<ul style="list-style-type: none"> <li>- Align the supply chain configuration with the business strategy</li> <li>- Lead the Sales &amp; Operations Planning process in line with the corporate strategy</li> <li>- Plan and manage Demand</li> <li>- Plan and manage Supply</li> <li>- Plan, manage and execute detailed schedules</li> <li>- Manage industrial flows and associated inventory</li> <li>- Plan requirement and manage operations in distribution</li> <li>- Promote quality, support development of technologies and engage continuous improvement</li> </ul>	<b>% exam</b> 15% 9 % 9 % 16 % 16 % 14 % 5 % 11 %
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## **OBJECTIVES FOR THE COMPANY**

- Recognize the skills required to take up a management position in the field of Operations Management
- Align players in the value chain to improve operational performance (reduce stock levels, improve customer service, ....)
- Take advantage of Industry 4.0 and make the best use of IT tools (ERP, MES, APS)
- Optimize Return on Assets as well as agility to serve current customers' expectations

## **EDUCATIONAL OBJECTIVES (PROGRAM SEQUENCING)**

### **Module I - Aligning the supply chain configuration with the business strategy**

- 1A – Understanding the business environment & developing business strategy
- 1B – Determine scope & objectives
- 1C – Develop & manage organizational strategy
- 1D – Aligning functional & operational strategies
- 1E – Adapt process engineering and industrial designs
- 1F – Define & monitor key performance indicators
- 1G – Identify & manage supply chain risks
- 1H – Managing capital equipment and facilities
- 1I – Define and lead sustainable development strategies

### **Module II – Conducting the Sales & Operations Planning (S&OP) process in line with the company strategy**

- 2A – Understand the purpose, the roles, and the S&OP process
- 2B – Develop and approve the Demand and Supply plans
- 2C – Evaluate trade-offs and reconcile Demand, Operations & Financial Plans

### **Module III - Planning and Managing Demand**

- 3A – Determine customer needs & influence demand
- 3B – Review the sources of customer demand & generate forecasts
- 3C – Monitor forecasting performance and respond to changes in demand

### **Module IV - Planning and Managing Operations/Production**

- 4A – Create and validate the Master Schedule
- 4B – Use and Maintain the Master Schedule
- 4C – Develop and manage the Material Requirements Plan
- 4D – Check for capacity and set up Final Assembly Schedule
- 4E – Identify capable suppliers and develop relationships
- 4F – Manage supply changes and disruptions

### **Module V – Execution & Control of Schedules**

- 5A – Master detailed programming & control principles
- 5B – Create manufacturing programs and schedules upon different methods
- 5C – Evaluate & adjust capacity requirements
- 5D - Implement and manage internal/external schedules, measure performance

### Module VI - Managing industrial flows and associated inventory

- 6A – Develop the stock management policy
- 6B – Anticipate cost impact of inventory and flow Management.
- 6C – Manage item inventory under a large range of usage
- 6D – Control storage, flow, handling, and the reliability of stock levels

### Module VII - Planning and Managing Distribution

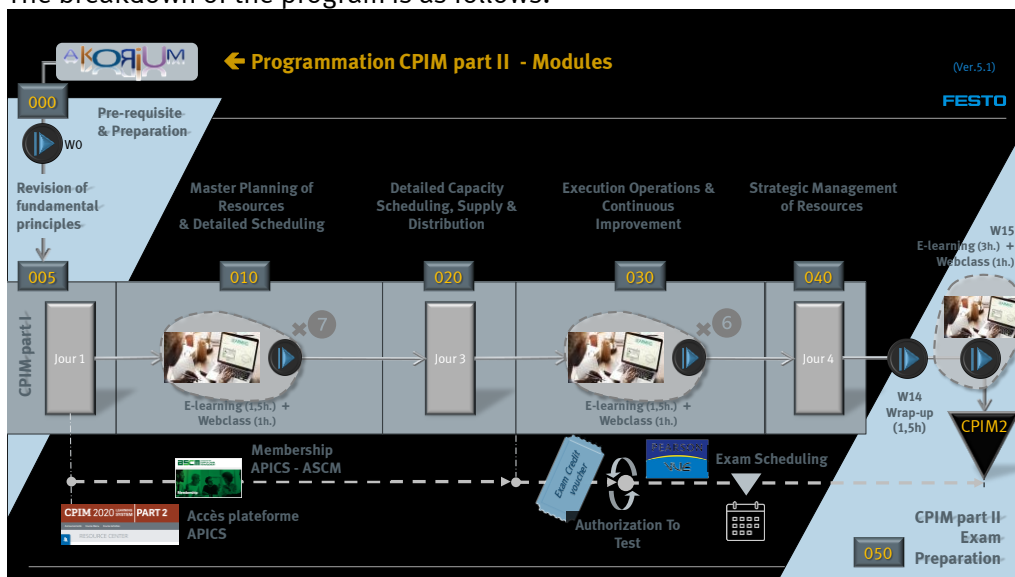
- 7A – Set organizational strategy and network for distribution
- 7B – Manage replenishment and customer orders
- 7C – Organize reverse logistics towards circular economy

### Module VIII - Managing Quality, Continuous Improvement and Technology in Operations

- 8A – Promote quality mind set and key methods
- 8B – Support the development of technologies to support strategic goals
- 8B – Engage organization in continuous improvement

### DETAILS OF THE CPIM PREPARATION PROGRAM

The breakdown of the program is as follows:



## 1.1 Module 000 - Introduction to the Program and Learning Platforms

### WO

#### Introduction of the program and modalities

- Introduction of the trainer and participants
- Understand programming and associated modalities
- Recognising the challenges of the flipped classroom
- Collecting participants' expectations
- Training in the use of APICS & Festo learning platforms
- Engagement of the initial assessment
- Sharing of preparatory work for the next session



Webclass (1,5h) on application and understanding of the course, Sharing of examples & articles as illustrations Activities and quiz for validation.

## 1.2 MODULE 005 - The Fundamentals of Supply Chain Operations Management

### Learning Objectives - Day 1 (7.5h)

#### Introduction of the class

- Feedback on expectations
- Feedback on the Pre-Assessment Test - initial situation and development plan
- Reminder of available resources and preparation conditions

#### 1A topic 1 - Introducing Supply Chain, MPS and SCOR DS

##### 6A Inventory Planning

##### 6B Inventory and product Costs, value, and Metrics

##### 2A topic1 Purpose of S&OP

##### 3A Demand Management topic 1~4

##### 4A Creating and validating the Master Schedule

##### 4C Material Requirement Planning

#### Inventory management issues: Chapter 5A, 5B& 5C - Inventory planning, Management and cost, value & metrics

- Describe the role of inventory in Manufacturing and Distribution and the objectives of inventory management
- Be able to give examples of stock types as they evolve along the value and supply chain.
- Differentiate stocks related to dependent demand from those implied by independent demand
- -Explain how different stocks can have different functions (Except 3A-13 & 14)
- -Define ABC classification and its application in stock management policy
- -Distinguish between global stock control and item-based management
- To provide examples of common understandings of global inventory control
- Distinguish between the possible ways of monitoring inventory
- List the methodologies for valuing inventory, give examples of inventory control indicators
- Define the categories of costs related to inventory and their management

- Describe the constraints applicable to inventory management orders and the elements that can lead to changes
- Describe the impact of the Lean approach on inventory management
- Describe the techniques for lot-size and replenishment (reorder point and periodic review)
- Give examples of how inventory are monitored to trigger replenishments
- Illustrate the negative impacts of poor inventory reliability
- Distinguish between periodic and rolling inventory

### **Reminder on Demand Management: Chapter 3A - Demand Management Topics 1 & 2**

- Identify the Demand side in the Planning & Control System hierarchy
- Understand the basics of the demand planning process
- List the inputs to the process and explain the need for reliable data
- 3D Topic 2 - Understanding Supply Chain Dynamics and the "Bullwhip Effect"
- Describe the CPFR model as an illustration of the importance of Forecast Management and its stabilising role as an input to the operations planning process

### **Background on S&OP: Chapter 2A - Purpose of S&OP**

- Describe the principles of S&OP – Sales & Operations Planning
- Explain the connections between the functional plans of the ICP and the strategy of the organisation
- Identify the consequences of an unbalance between demand and supply
- List possible impacts of strategy changes on functional plans
- Describe why different production environments use different units of measurement
- Characterise different production alternatives and their benefits, risks, and financial implications
- Identify how to select planning horizons and aggregation levels and how these impact on the service provided to the client.

### **Reminders on the Master Schedule: Chapter 4A - Creating the Master Schedule**

- Describe the role of the programming process in the overall planning and control process, and its connections with other processes
- Explain how the different production environments interact with the programming stage of production
- Describe in detail the sub-assemblies, components and raw materials used in the manufacturing process.

### **Reminder on Net Requirements Planning (NRP): Chapter 4D - MRP Design**

- Define the net requirements calculation process - MRP
- Describe the production environment in which the MRP process is particularly applicable and compare this approach with those used in a make-to-order environment and in the Lean approach
- List the input data specific to the MRP process
- Name the elements influencing the planning process
- Be able to give examples of good practice in terms of item identification/numbering
- Describe the outputs of the MRP process

### **Reminder on Scheduling: 4F - CRP and MRP based Scheduling**

- Identify the parties involved and responsible for the different stages of the manufacturing process
- Identify and describe the different types of manufacturing processes and the different underlying configurations
- Distinguish between the characteristics of batch and flow manufacturing processes


- Recognise push and pull approaches in terms of their impact on the manufacturing process configuration

**Protocol: Hybrid class**



**1.3 Module 010 - Distance learning (Webclass - W) - Series No. 1 "Master Planning of Resources"**

The series of distance learning classes allows you to learn essential parts of the course with a **particular focus**. Each webclass is dedicated to one or more sections of the Certified in Planning and Inventory Management program. The sessions are staggered, allowing for better integration with their professional and personal schedules.

 The distance learning sessions (1 hours) are led by an **APICS accredited trainer** and recorded to allow participants to review the discussions and explanations at their leisure.

Each "**webclass**" (W) is based on the principle of the **flipped classroom** and therefore requires preparation beforehand: The commented course is available in the form of video modules that can be accessed at the convenience of each individual for self-study (1,5 scheduled upfront)

**W1**

**3A Demand Management - topic 5 influencing Demand  
3B Source of Demand topic 1  
3B Forecasting topic 2**

- Segment the customer base from the business strategy and required capabilities
- Engaging the CRM approach across the customer relationship life cycle
- Define a "customer policy" (day-to-day management of sales activities: stock levels, service rates, confirmation of deadlines, special requests)
- Communicating effectively internally to promote customer response
- Select performance criteria to meet customer expectations.
- Explain how to monitor and influence demand, particularly in the case of promotions
- Indicate the role of industrial methods and the options commonly applied to develop optimized product/process solutions (functional/value analysis, concurrent engineering, modular design and delayed differentiation)
- Manage configuration changes and their impact on the industrial tool
- Identify sources of demand to the Master Production Program - B2B or B2C, direct or via distribution channel
- Distinguish between references with dependent demand and those with independent demand.



**Self-study course based on online module**  
(1 hour to be planned in your professional agenda)



Webclass (1h) on application and understanding of the course, Sharing of examples & illustrative articles  
Activities and quiz for validation.

**W2**

**3B Forecasting topic 3~4**  
**3C Forecast Performance**

- Describe the key concepts related to sales forecasting
- Adapting the horizon and interval
- Understand the advantages and disadvantages of various qualitative forecasting methods
- Understand the fundamentals of the sales forecasting process and the advantages and disadvantages of various quantitative methods
- Detail the managerial considerations and issues involved in selecting forecasting methods.
- Describe how to evaluate the performance of the forecasting process and the role of different metrics around forecast errors



**Self-study course based on online module**  
(1.5 hours to be planned in the professional agenda)



Webclass (1h) on application and understanding of the course, sharing of examples & illustrative articles  
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**W3**

**2A Topics 2~3 S&OP Roles and Process**  
**2B Aggregate Demand and Supply Plans topics 1~2**

- Identify participants, roles & steps in the S&OP process including input and output data
- Detail the elements of the aggregate demand plan including the product portfolio and new introductions.
- Describe the challenges of the aggregate production plan and strategic options in relation to the market
- Develop and validate the production plan to support the company's strategic choices and type of production environment (synchronous, levelled, hybrid)
- Assess the resource requirements to support the aggregate plan
- Adapting strategic buffers to supply chain risk conditions



**Self-study course based on online module**  
(1.5 hours to be planned in the professional agenda)



Webclass (1h) on application and understanding of the course, sharing of examples & illustrative articles  
Activities and quiz for validation.

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## W4

### 2B (end) Aggregate Demand and Supply Plans topic 3 2C Reconciling S&OP Plans 4B Using and Maintaining the Master Schedule topic 1

- Explain the possibilities of balancing demand and production, by influencing/prioritizing demand
- Evaluate the alternatives and risks to come up with a plan that can be implemented as a commitment
- Describe how to create, maintain, and implement the Master Schedule.
- Explain the market and production influences that can be seen at the level of director articles.
- Apply the use of management limits to stabilise programming.
- Coordinate technical changes
- Calculate the projected stock with and without management limits
- Calculate the available for sale
- Maintain the Master Schedule by adjusting inventory or order book levels
- To measure the performance of the Master Schedule and to evaluate the possible fields of action.



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## W5

### 4B Using and Maintaining the Master Schedule topic 2 4D CRP and Scheduling

- Identify the process applicable to the Final Assembly Planning (FAS) case and sources of Demand.
- Detail the specific facilities for managing 2 levels of programming.
- Measuring the performance of the FAS process
- Describe the role of the RCCP in the planning system and its process
- Detail the 3 applicable methods: from load factors, load nomenclature and resource profile.
- Explain the possible load balancing options
- Improve the process to consider more accurately the elements influencing the load centers.
- Adjust priorities within MRP and react to changes in deadlines and quantities
- Review operational parameters, play with margins and buffers, simulate impacts
- Understand the interconnections between MRP scheduling and CRP, and its role in the MRPII framework
- Detail the steps of the CRP process, its advantages, and limitations
- Place MRP-based scheduling at the heart of the detailed calculation of capacity and component requirements, describe the interrelationships with the production release and activity control steps/functions and the protocols followed
- To consider countermeasures to the fulfilment of the commitments thus set out



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## W6

### 5A Planning Detailed Schedules

- Describe the issues involved in detailed scheduling and the components of the approach, in particular the range with its time increments marking the operations
- Explain the principles of scheduling (upstream, downstream, centered) and loading (vertical, horizontal, finite or infinite capacity)
- Relate the elements influencing the rate of achievement and the role of Activity Control
- Explain the rules of prioritization and good management practices including batch splitting, lot size reduction, and concurrent processing of operations
- Consider the Lean (pull) approach instead of the MRP-based (push) approach.
- Describe the applicable ordering approach from the theory of stress and its reliance on decoupling points



#### Self-study course based on online module

(1.5 hours to be planned in the professional agenda)



Webclass (1h) on application and understanding of the course, Sharing of examples & illustrative articles Activities and quiz for validation.

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## W7

### 5B Scheduling and PAC Methods topic 1 ~ 3

- Describe the modalities for Production Control in intermittent and flow environments.
- Explain the role of time and priority tracking
- Explain the need for a holistic view of performance (e.g. TRS) as well as accurate and timely monitoring
- Detail the modalities of the Lean approach applied to the Production Control, in particular with the smoothing of cadence (Heijunka, takt time, Kanban, line balancing)
- Detail the modalities of the Theory of Constraints approach at the PAC level (Drum Buffer Rope & constraints management)
- Explain the continuous flow approach and the particularities of scheduling (setting from a key process/operation, setting from stock management on from raw material) and upstream/downstream declination



#### Self-study course based on online module

(1.5 hours to be planned in the professional agenda)



Webclass (1h) on application and understanding of the course, sharing of examples & illustrative articles Activities and quiz for validation.

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## 1.4 MODULE 020 - Detailed Capacity Scheduling, Supply & Distribution

### Day 2 | Educational Objectives (7.5h)

**5B Scheduling and PAC Methods topic 4 ~ 5**

**5C Creating Production and service Schedules**

**5D Managing detailed Schedules and scheduling Materials**

**4E Suppliers and Purchasing**

**4F Changes and Product Life Cycle Management**

**7A Planning Distribution**

**Exam revision Master Planning of Resource & Detailed Scheduling & Planning**

#### **6C - Production Schedules and using detailed schedule**

- Describe the operational challenges related to detailed costing
- Describe how the calculation of charges is conducted in the Services area
- Explain the calculations of utilization, efficiency, rated capacity and demonstrated capacity
- Indicate the role of the safety capacity
- Explain how the load is calculated and the means to adjust the load/capacity balance or redistribute the load
- Distinguish the characteristics of industrial processes in intermittent versus continuous flow mode
- Distinguish between "pull" and "push" industrial processes
- Develop the human resources plan & detail the tasks involved in its implementation
- Linking production commitment with human resources commitment
- Manage sequencing by working on transfer batch sizes and queue management
- Measuring the performance of capacity management
- Handle exceptions in such a way as to capitalize on experience
- Manage incoming components from regular and comprehensive communication to Vendor Managed Inventory

#### **4H - Suppliers**

- Describe the factors influencing the purchase versus production decision
- List the Purchasing objectives and the criteria considered for the selection and certification of suppliers.
- Describe the stages of evolution of the customer-supplier relationship and the alternative scenarios in terms of strategic positioning
- Explain the risk versus profit matrix applicable to the strategic choice of a supplier
- Detail the steps to follow in the process of setting up key suppliers
- Distinguishing between tactical and strategic purchasing and sensitive procurement
- List the possible scenarios in the event of a customer-supplier reconciliation
- Give examples of non-contractual collaboration between customer and supplier (simultaneous engineering, logistical expertise support and continuous improvement)

#### **4I - Purchasing**

- Describe the objectives of Purchasing and the elements involved in the transaction (technical specification, price, quality, logistics, sustainable development, etc.)
- Detail how different types of contracts work
- Describe the complete procurement cycle from request to payment approval.

- Specify the typical optimized operations around the information flow and physical flow (open order, consignment, shared supply management, Lean)
- Describe the keys to good supplier relations and how to evaluate supplier performance

### 7A - Planning Distribution

- Describe strategies for setting up a distribution channel and influencing factors including the production environment
- Detail the approaches to establishing the network (number of rows, location of centers, private or shared type)
- Explain the approach to implementing the transport process in the distribution network.
- List the factors that influence decisions on transport modes
- Specify the considerations to be considered from a sustainable development perspective
- Correlate the key elements that will structure the distribution model with the network configuration scheme and associated services/features
- Describe the basic approach to the development of the distribution network

### 7B - Replenishment and order management topics 1~6

- Resituate the challenges of Distribution Requirements Planning within the distribution network & explain the basic concepts
- Identify the parameters useful for managing SKUs in the network since the use of the bill of distribution.
- Define and differentiate between the push (centralized) and pull (decentralized) approaches.
- Justify the importance of stock control within the network
- Comparing the management modalities with the DRP approach
- Explain the detailed business rules of the DRP process
- Calculate the safety stock according to the number of centers in the network
- Develop the calculation of distribution needs on a simple scheme
- Explain the schedule line approach to requirements in comparison to the fixed quantity, reorder point method
- Explain the interrelationship between DRP and S&OP and Master Scheduling
- Detail the resource impacts in terms of capacity on stock, transport, storage space, and manpower requirements
- Recognize specific performance measures and methods of capturing customer satisfaction
- Detailing the order management cycle within the network and the methods for ensuring responsiveness

### Exam revision: Master Planning of Resources & Detailed Scheduling & Planning

#### Protocol: Hybrid class



Classroom



Web sharing



and exchanges

## 1.5 Module 030 - Distance Learning (webclass - W) - Series 2 "Execution Operations & Continuous Improvement"

### W8

#### 7B Replenishment and Order Management

- Distinguish between management accounting and financial management accounting.
- Understand the classification of costs, industrial and non-industrial, fixed/variable, direct/indirect, full cost, opportunity cost and their use
- Understanding the difference between cost allocation and variable cost methods
- Differentiate between established costing methods from the concepts of contribution margin, full cost, variable cost and life cycle costs
- Describe approaches to consolidating costs by case, process and operation
- Understand the principles of cost allocation from the activity-based approach, using load factors or charge rates.
- Analyse the sources of variance between actual and standard costs
- Recommend waste to be eliminated based on cost observations and their variances.
- Develop a launch plan for a new product
- Mapping the challenges of new product launches versus demand uncertainty
- Describe the process for managing the end of life of a product



**Self-study course based on online module**  
(1.5 hours to be planned in the professional agenda)



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Activities and quiz for validation.

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## W9

### 6C Itemized Inventory Management

- Recognize the stages (transactions) marking the evolution of a product in stock
- Describe the basic storage approaches, their physical configuration, and their respective challenges
- Describe the elements of warehouse storage management and how to allocate storage bins.
- Explain the various usage agreements drawn up between customers and suppliers regarding the issues at stake in stock management and the principles followed
- Detail the impacts of unreliable stocks, list the possible causes and recognize the information useful for their management
- Distinguish between the 2 main modes of inventory audit : Cycle and periodic
- Ensure traceability to the standards applied at different levels of the supply chain and explain the impact of technologies
- Develop technology expectations to serve the company's overall business plan
- Assess the current state to identify the gap to be closed with the target state
- List the factors of decisions related to strategic choices and their potential impacts
- Supporting the implementation of the Technology with project configuration and mature teamwork
- Describe the basics of starting up and maintaining the Technology
- Describe the structure of an ERP system, its evolution over time and the associated risks.
- Describe the functioning of an expert/advanced planning system, its possibilities, and pitfalls, especially in terms of input data
- Relate the solutions supporting decision support as well as the emergence of new technologies with applications impacting directly on the Supply Chain (IoT, blockchain, drones, intelligent sensors, artificial intelligence, robot/cobot, AGV...)



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## W10

### 6D - Inventory Control

- Describe the role of management in setting up a quality system, the role of middle management and field workers
- Distinguish between strategic planning activities, control, and continuous improvement aspects
- Explain how quality-related cost monitoring can be used to drive the process.
- Detail the use of the 7 basic quality tools (tally sheet, the Ishikawa diagram, the Pareto, the histogram, the correlation diagram and the statistical monitoring and flow diagram)
- Detail the use of 7 new quality tools (affinity diagram, tree diagram, matrix diagram, decision flow diagram, interrelationship diagram, activity network diagram)
- Explain the value of a strategic view on the development of a continuous improvement approach.
- Detail the fundamentals of such an approach and relate the impact on the company's know-how
- Consider the parallel with the Lean management approach, detail the possible applications to service activities



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## W11

### 8A Quality 8B Technology

- Identify important factors and describe tools to foster employee engagement (recognition system, empowerment & self-monitoring, multi-skilling and multi-skilling, job rotation, cross-training, on-the-job training...)
- Detail the use of collaborative tools to support continuous process improvement. Case of product/process development with functional analysis - quality house; case of supplier partnership with SIPOC matrix
- Illustrate the need for a structured approach to problem solving; case of 6 sigma - DMAIC, case of Lean with PDCA, VSM, Kanban, reduction of changeover time, reduction of WIP and lead times, A3)
- List complementary tools and their scope (Fault tree, experience plan, brainstorming, nominal group, TPM, SCRUM approach)



### Self-study course based on online module (1.5 hours to be planned in the professional agenda)



Webclass (1h) on application and understanding of the course, sharing of examples & illustrative articles  
Activities and quiz for validation.

## W12

### 8C Continuous Improvement topics 1 ~ 5

- Configure the workspace to support productivity, standards, and support activities.
- Promote visual management, apply 5S to support commitment & adapt flexible automation
- To master the capability of processes and their statistical monitoring. Detail the uses and modes of sampling
- Calculate the capability and acceptability of a process, use the results to adjust the process
- Exploit the waste pyramid to engage in initiatives aimed at Sustainable Development. Understand what is close to the circular economy
- Describe the total cost of ownership as the benchmark for such approaches. To illustrate the contributions of Reverse Logistics to the approach
- Develop the specific modalities for this kind of approach to re-use returned products.
- Describe the distribution stakeholders and measures commonly considered in relation to the waste hierarchy (pyramid)



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Activities and quiz for validation.

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## W13

### **8C Continuous Improvement topics 6 ~ 8** **7C Waste hierarchy and Reverse Logistics**

- Define the company's strategy, its development process, its local, network and global views, and its implementation
- List the key elements to be respected for a good definition and implementation
- Describe the preparation process for the analysis of the environment and internal/external forces
- Gauge the level of competition in the market from the 5 forces diagram and list the opportunities available in each area
- Position the level of attractiveness of the market
- Analyze the internal environment of the company: resource and capability balance, SWOT or VRIN analysis; Value chain
- Carrying out the assessment of the product portfolio and its positioning in terms of life cycle.
- Describe the strategic options for expanding the scope of the business, combining diversification (new products) and expansion (new markets). Review the advantages and disadvantages
- Assessing diversification opportunities from the attractiveness/competitive strength matrix
- Develop the rationale for a globalization strategy for its production sites and the possible international options
- Distinguish between horizontal and vertical integration, develop the options of mergers & acquisitions, upstream or downstream (lateral) integration with their advantages and disadvantages
- Consider the strategic option of outsourcing activities



**Self-study course based on online module**  
(1.5 hours to be planned in the professional agenda)



Webclass (1h) on application and understanding of the course, sharing of examples & illustrative articles  
Activities and quiz for validation.

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## 1.6 MODULE 040 - "Quality, Continuous Improvement & Strategic Management of Resources

### Learning Objectives - Day 3 (7.5h)

#### 1A topic 2~4 - The Environment and Strategy

##### 1B1 Strategic Scope

##### 1B2 Strategic Objectives

##### 1C1 Developing organizational Strategy

##### 1C2 Executing and Monitoring Strategy

##### 1D1 Analysis for Functional and Operational Strategies

##### 1D2 Functional and Operational Strategies

##### 1E - Processes and Layouts

##### 1F - Performance Monitoring and KPIs

##### 1G - Risk Management

##### 1H - Capital Equipment and Facilities

##### 1I - Sustainability Strategies

#### 1C - Strategic Objectives

- Detail how the market can be segmented considering the value proposition, the pattern of customer use and its relative strategic value
- Correlate various specific customer requirements with their impact on industrial processes from a local (versus global) perspective
- Define the objectives that will enable the implementation of the strategy to be mapped out
- Explain the notion of cascading and alignment of objectives within the company. Justify the need for this to ensure the coherence of initiatives and to achieve the expected performance
- Review the usual performance objectives and their connection with certain strategic orientations.
- Identify indicators that are likely to serve these objectives & make them explicit.

#### 1D - Developing organizational Strategy

- Distinguish between "qualifying advantages" and "winning advantages", and explain how a company should consider the profile of its offer at different stages of its life cycle
- Detail the 5 types of strategies recognized by M. Porter: low-cost, differentiation, focused low-cost, focused differentiated and domination (best-cost)
- Explain how each strategy: impacts on the company's activities, is adapted to certain market situations and requires certain risks to be considered

#### 1E - Executing and Monitoring Strategy

- Indicate how the management rules, processes, human resources, and material management enable the strategy to be implemented
- Describe the importance of having a control loop system in place to confirm performance and adjust course
- Show how to back up an agile network with the central core of the company's hierarchical structure to capture opportunities and react to changes in the environment.

#### 1F - Analysis for Functional and operational Strategies

- Distinguish between organizational/functional strategy (Marketing, Finance, Production) and operational strategy in relation to the management of material and human resources



- Understand the forces influencing the Operational Strategy framework and the elements implemented (e.g. technologies, IT, ...)
- Determine the technological choices that will have an impact on various performance criteria at the operational level (costs, lead times, productivity, agility, etc.)
- List the technological choices that need to be made for certain types of industrial process configurations
- Establish a profit analysis according to costs and volumes, calculate the contribution margin, determine the break-even point of an activity, evaluate the impact of the product mix on sales, margin, and results.

### **1G Functional and Operational Strategies**

- Describe the processes involved in the resource adjustment process and their interrelationships with the shape of the demand and the characteristics of the industrial response
- Describe the factors that influence the adjustment of resource levels
- Distinguish between anticipatory, follow-up and lag approaches in terms of synchronizing the adjustment of resources with the need and describe the factors to be taken into account in the 3 cases.
- Use the marketing mix to develop your supply chain strategy.
- Correlate supply chain network options with elements of the business strategy
- Describe factors to be considered when planning increments in capacity.
- Explain the strategic importance of the decoupling point in the response to customer demand (push/pull), associate it with the production environment and link it to the business strategy
- Define the criteria for making the decision to manufacture or subcontract
- Detail the elements to clarify the operational strategy towards employees and the 3 phases of implementation
- Regarding the number of sites and their size, explain the ins and outs
- Describe how a holistic view differs from a deliberately more focused approach
- Considering international and new market entry through various means from a

### **1H Processes and Layouts**

- Describe the impact of volumes and the number of product variants on the technologies to be used for manufacturing (product/process matrix)
- Identify the issues related to product/process suitability in relation to the implementation of the operational strategy for production
- Identify the impact of the expected degree of contact on the issues of sales opportunity and production efficiency in service activities
- Take up the product/process matrix on service activities
- Describe the use of a process chain network related to a service activity
- Use the matrix of perception gaps on services rendered
- Select the process configuration to meet operational expectations (production or service), establish the benefits and limitations of each case.

### **1I Performance Monitoring and KPIs**

- To relate the structuring of performance indicators useful for a detailed control and to explain the interest of the SCOR model in a benchmarking and rationalization perspective
- Detail the structure of the BSC approach and connect the approach with the S&OP level
- Describe and provide examples of each of the 5 financial ratio groups (liquidity, activity, debt, profitability, market value).
- Define the concept of "Cash to Cash" cycle time

- Characterize the necessary alignment between global strategic indicators and operational indicators such as customer service rate and order completion rate.

### 1J: Risk Management

- Outline the process of enterprise risk management
- Detail the principles of risk assessment (FMEA basis)
- Illustrate the risks present in the Supply Chain, give a gravity/occurrence positioning
- List the different levels of response possible
- Consider business continuity options

### 1K Capital Equipment and Facilities

- Define the process for establishing the business plan
- Specify the budgeting aspect of capital requirements and describe the concepts of depreciation period, net present value, internal rate of return, and profitability index.
- Relate the role of TPM to the operational strategy and its effect to ensure the productivity of the production tool
- Understand how to comply with health, safety, and environment requirements and regulations.
- Highlight the importance of HSE issues at the level of corporate strategy and the catalytic effects from an operational point of view, illustrate with examples.

### 1L Sustainability Strategies

- Define the terms Sustainable Development, Social Responsibility and the notion of triple bottom line with the pitfalls to be anticipated
- List the fields of action of SD and the influencing factors whether seen locally or globally
- Explain the benefits of integrating the approach into the business strategy
- Explain the need for orientations and choices relevant to the business strategy
- Describe the levels of maturity in the implementation of such an approach
- Describe the reference model for implementation, including environmental scanning, risk management and management leadership
- Discuss the importance of environmental scanning, risk management, and leadership in developing a sustainability strategy.
- List the reference sources useful to support an SD approach: ISO 14000 & 26000, the United Nations Global Compact, and other certification programs (e.g. SA8000, ISO 510001)
- Describe the Global Reporting Initiative (GRI) approach and the main elements addressed in the idea of assessing practices
- Detail the considerations relating to Sustainable Development and their correlation with the challenges/objectives of the Supply Chain
- Explain the usefulness of measuring and displaying results for an effective strategy, and the role of audit in such an approach

### Protocol: Hybrid class



Classroom



Web sharing



and exchanges

## 1.7 MODULE 050 - CPIM2 Exam Preparation



**The candidate completes the series of Quizzes.**  
(3h. to be planned in the professional agenda)

### W14

**Exam preparation:**  
**Strategic Management of Resources**

- Group answers to about 30-40 MCQs
- Reviewing concepts, reinforcing principles
- Sharing feedback
- Additional illustration on hard points encountered



**Webclass (1h30)**



**The candidate completes the post-test and final exam online.**  
(3h. to be planned in the professional agenda)

### W15

**Exam preparation:**  
**CPIM2 - global review**

- Reviewing concepts, reinforcing principles
- Additional illustration on hard points encountered



**Webclass (1h30)**

Then, until the examination is taken (date selected by the candidate), candidates can access at their convenience all the additional resources made available to them on the learning platforms (APICS and Festo)

Festo with its accredited trainers supports the candidates by answering questions via the **Forum** (Festo platform)

The remaining difficulties are thus resolved and capitalised upon so that they can be shared with all the learners

### **PEDAGOGICAL MODALITIES (& MEANS)**

- Theoretical Presentations
- e-learning modules to prepare flipped classes
- Group activities, quizzes
- Case study
- Video Viewing & Reflection
- Sharing experiences (Intervention of 2 certified trainers)
- ASCM members' resources
- Online access to educational and resource materials (ASCM & Festo)
- Documentation (printed booklets)

### **EVALUATION METHODS**

- Initial Positioning Test
- Participant's progress assessed throughout the training by the trainer based on activities and exchanges.
- Final post-test & Exam preparation test.
- Evaluation supplemented by the online collection of participants' assessments at the end of the training and by the trainer's assessment

### **METHOD OF CERTIFYING TRAINING**

Finally, a certificate of completion is given to each participant.

In addition, the APICS CPIM review must be conducted under the supervision of a third party (150 questions - 3,5 h. in an accredited center from the Pearson Vue network).

APICS CPIM certification is obtained from a success rate of 300 points or more (approximately 65% of correct answers).

### **TRAINERS**

Consultant trainers, experts in Industrial & Operations Management, accredited by the Association of Supply Chain Management – 25 years+ experience.

#### **Note:**

- Inter- or intra-company formats are possible.
- The use of a PC, internet access and, videoconferencing equipment (headphone & webcam) is to be anticipated.