

ENTERPRISE BLOCKCHAINS AND SUPPLY CHAIN MANAGEMENT



101 Blockchains

© 2020 101 Blockchains. All rights reserved. This document may not be distributed, transmitted or reproduced in any form or by any means without 101 Blockchains' prior written permission. While the information contained in this document has been obtained from sources believed to be reliable, 101 Blockchains disclaims all warranties as to the completeness or accuracy. Although 101 Blockchains research and training may address business, financial, investment and legal issues, 101 Blockchains does not provide any business, financial, legal or investment advice and this document should not be construed or used as such. 101 Blockchains shall not be responsible for any loss sustained by any person who relies on this publication.

THIS COURSE IS FOR YOU IF WANT TO:



Engage with heads of
enterprise operations.



Transpose technology to
enterprise business processes.



Improve your enterprise
blockchain professional skills.



4 WEEKS



3-4 HOURS PER WEEK



FLEXIBLE LEARNING

BLOCKCHAIN IN THE SUPPLY CHAIN

ENTERPRISE BLOCKCHAINS AND SUPPLY CHAIN MANAGEMENT

- **Module 1: Supply Chain Management Fundamentals**
- **Module 2: Supply Chain Management Value Creation**
- **Module 3: Enterprise Blockchain in The Supply Chain- Use Cases**
- **Module 4: Implementing Enterprise Blockchain in Your Supply Chain**

WHO SHOULD TAKE THIS COURSE?

- Senior Leadership & Decision Makers
- Product & Program Managers
- Innovation Managers & Entrepreneurs
- Advisors & Business Analysts

MODULE 1

Supply Chain Management Fundamentals



101 Blockchains

Supply Chain Management Fundamentals

- Understand the business processes of a supply chain.
- Learn the roles and responsibilities of a supply chain manager.
- Evaluate how supply chain management creates corporate value.
- You will be ready to understand which parts of a supply chain benefit from enterprise blockchain applications.

Supply Chain Management Fundamentals

- **Lesson 1: What is a supply chain?**
- **Lesson 2: A month-in-the-life of the supply chain manager.**

What is a supply chain?

SUPPLY CHAIN MANAGEMENT FUNDAMENTALS



101 Blockchains

WHAT IS A SUPPLY CHAIN?

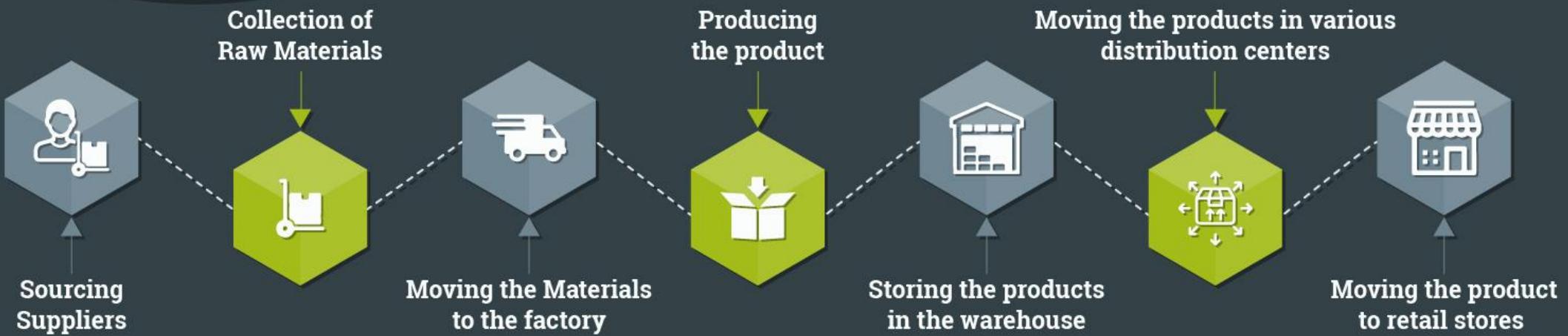
A supply chain is a network chain of suppliers to manufacturers and distribution of any particular product among the end buyer. This overall chain of a network includes several activities, information, people, and resources.

ESSENTIALS OF SUPPLY CHAIN

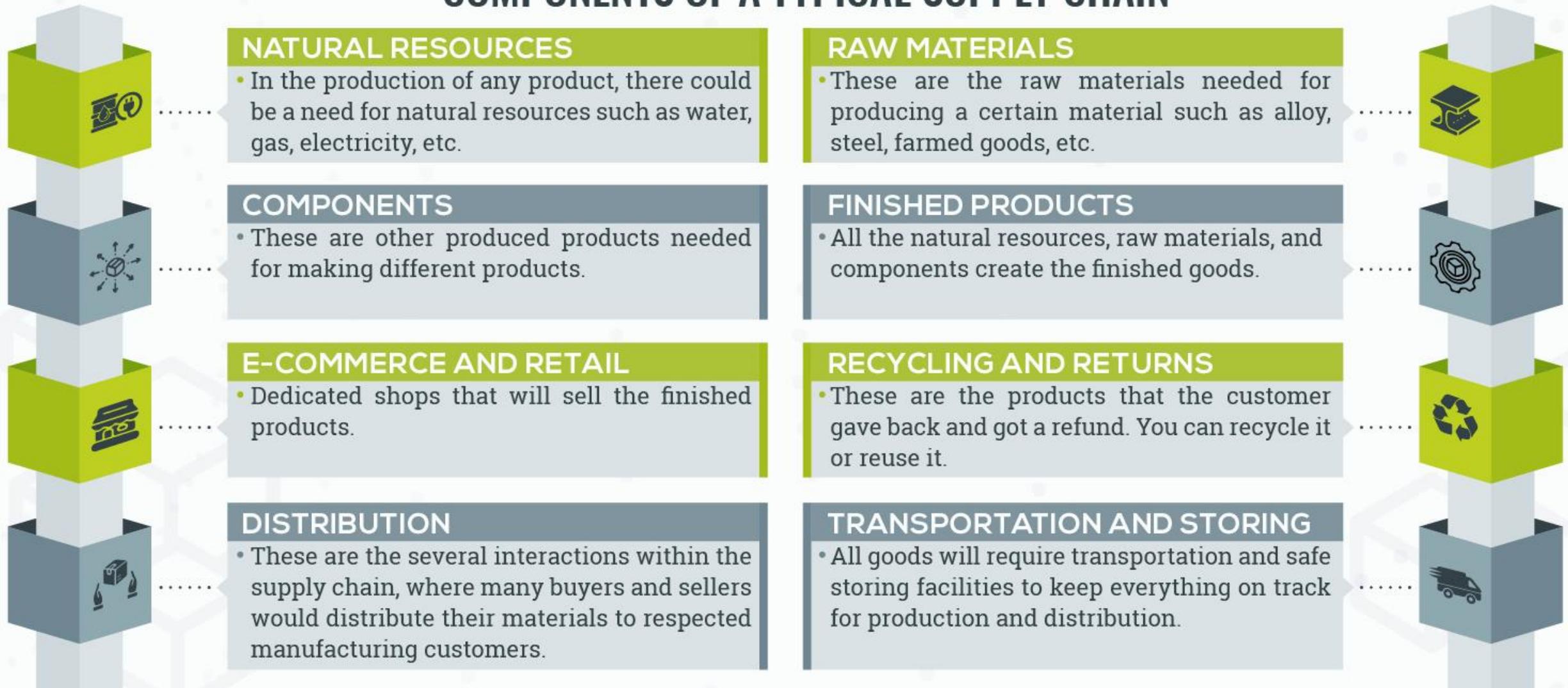
FIVE PARTICIPANTS IN EVERY SUPPLY CHAIN



HOW SUPPLY CHAIN WORKS?



COMPONENTS OF A TYPICAL SUPPLY CHAIN



Supply chain management - Definition

Supply Chain Management (SCM) is a disciplined **blend of practices, organization and technologies** that support users in the (design), plan, source, make, deliver, and return of goods and information relative to products and services delivered to end users in the global market

The end game is to perform such activities in a profitable way



WHAT IS SUPPLY CHAIN MANAGEMENT?

Supply chain management is the managing process of a production flow within the supply chain network. Here, a company will manage everything, starting from the raw components to supplying the end product.

PHASES OF A TRADITIONAL SUPPLY CHAIN MANAGEMENT



PLANNING

In this phase, the manager will plan the production line to be aligned with the customer demands and offer maximum output with minimum errors.



SOURCING

Next is choosing the best suppliers and then monitoring the process of receiving those supplies.



MAKING

Manufacturing the products, quality tests, the packaging is on this phase.



DELIVERING

Taking customer orders, scheduling deliveries, invoicing, and receiving payments is on this phase.



RETURNING

Managing all the defects and unwanted goods and ensuring their return to the factory.



ENABLING

Making sure everything is within regulation, such as product design, human resources, finance, sales, and quality assurance.

KEY ISSUES IN SUPPLY CHAIN

Globalization

Due to recent massive globalization, outsourcing production globally makes it difficult to coordinate within the supply chain.

Rapid changes in the market

The globalization and technological revolution creates rapid changes in customer demand. Keeping up with them within the supply chain is utterly difficult.

Compliance and quality

With consumer expectation rising maintaining the same quality in every product becomes a burden. Also, while handling thousands of products every day, the enterprise have a hard time coping with all the regulations.

Lack of Transparency

Tracking every element, in reality, is difficult due to the vast number of suppliers from different sources. That's why many counterfeit issues occur on a regular basis.

Corruption

Bad personals within the supply chain management harm the entire integrity of the chain. False transactions, no quality checks, lack of ethics are just a few of these corruptions.

High costs

Multiple cost factors take up a lot of money over a proper supply chain such as inventory cost, quality cost, procurement cost, transportation cost, marketing cost, management cost, and many more.

Relatively Slow

Due to a lack in the management sector, the overall output of today's supply chain is quite slow, which wastes a lot of time and cuts revenues.

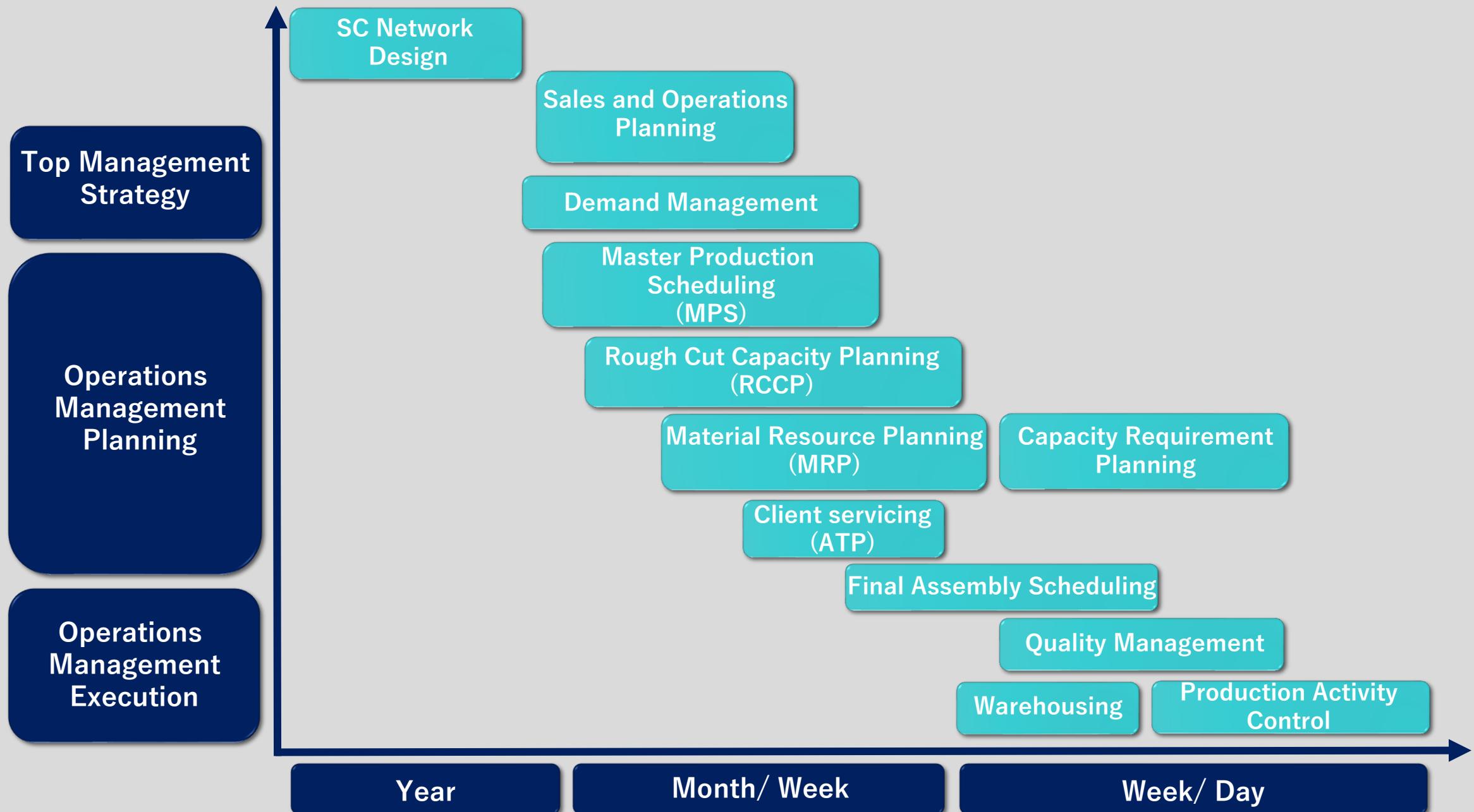
Poor customer Service

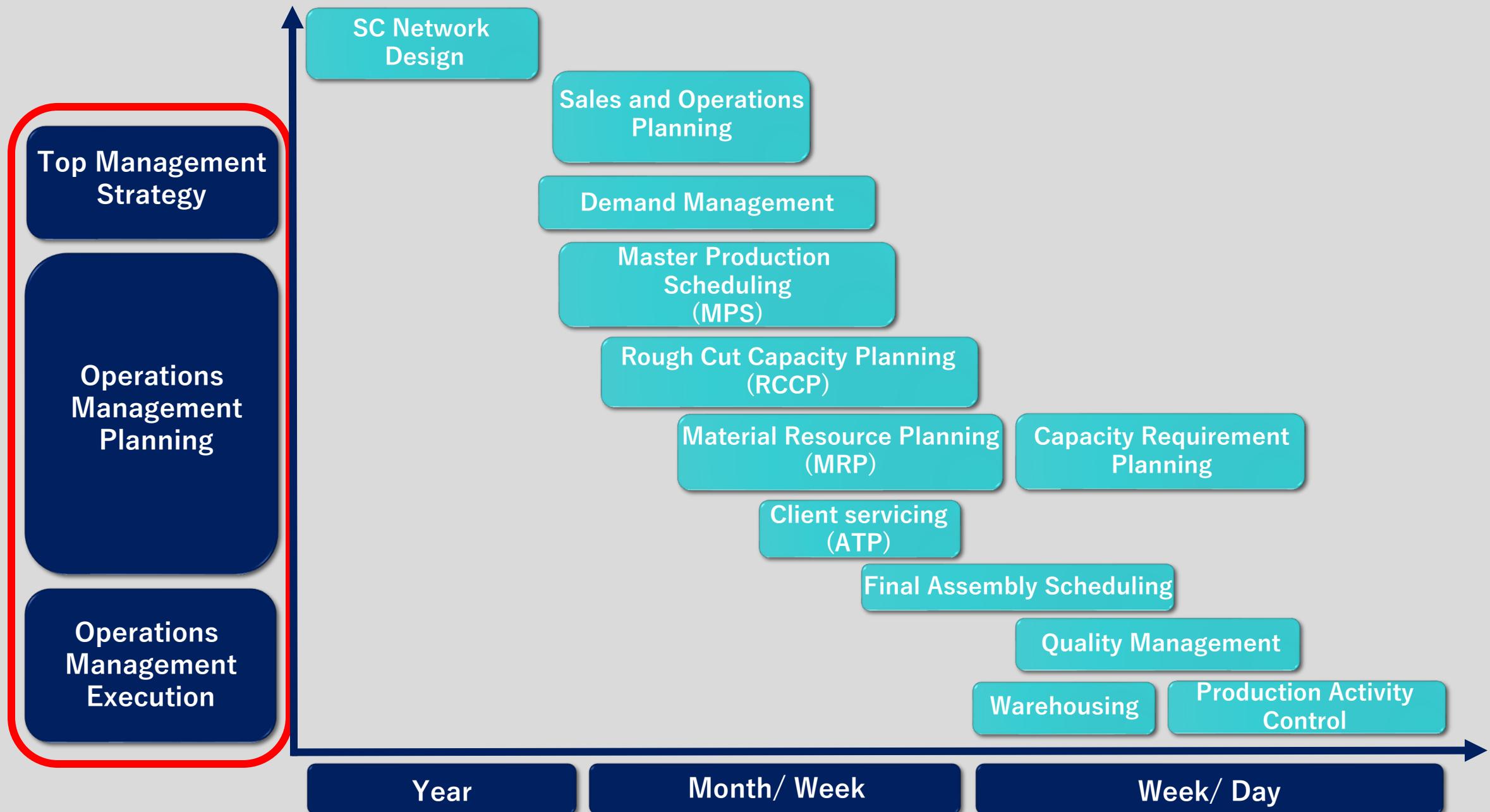
The process of returning a product or refunding payment of a customer is complicated. Many companies don't offer the best treatment for their customer in case of returns.

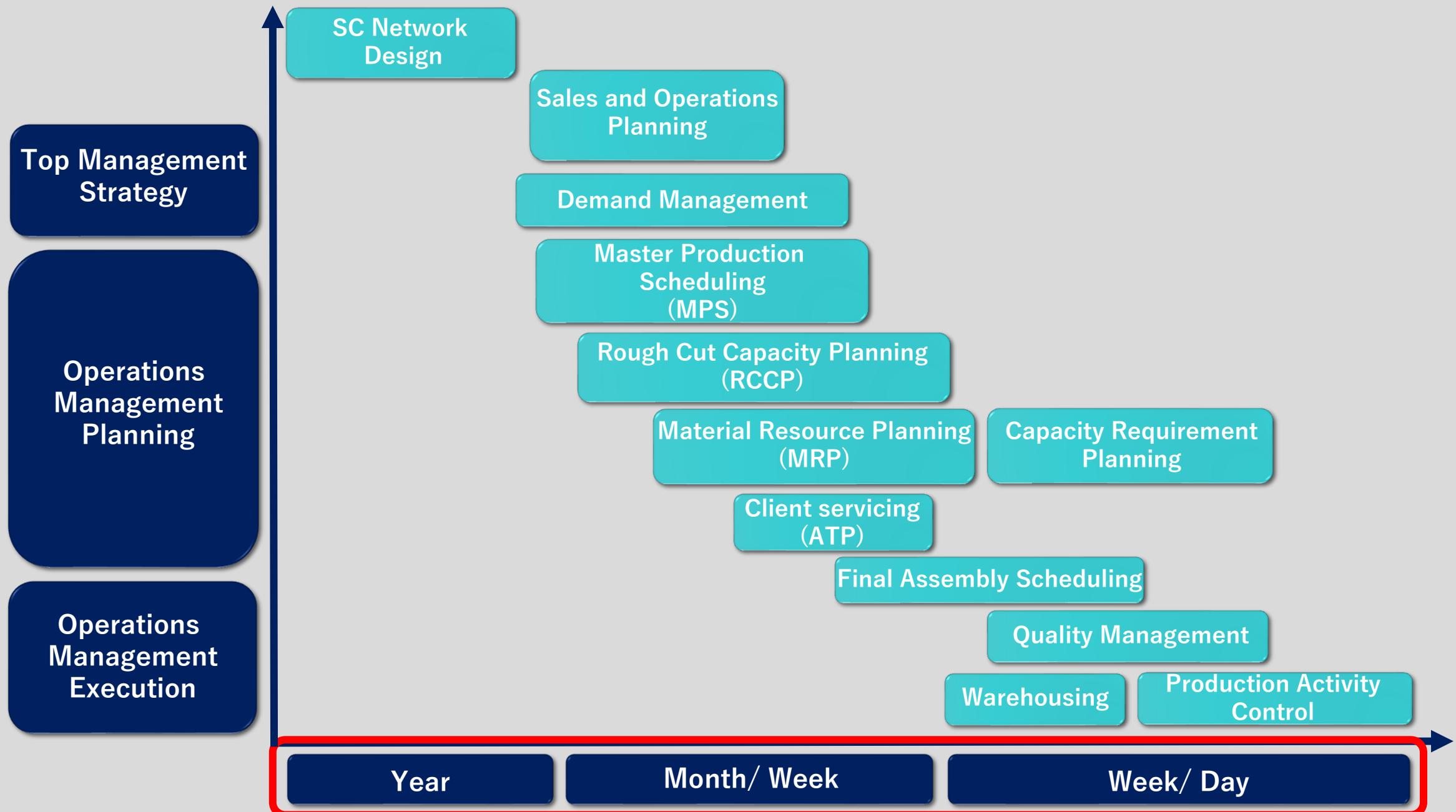


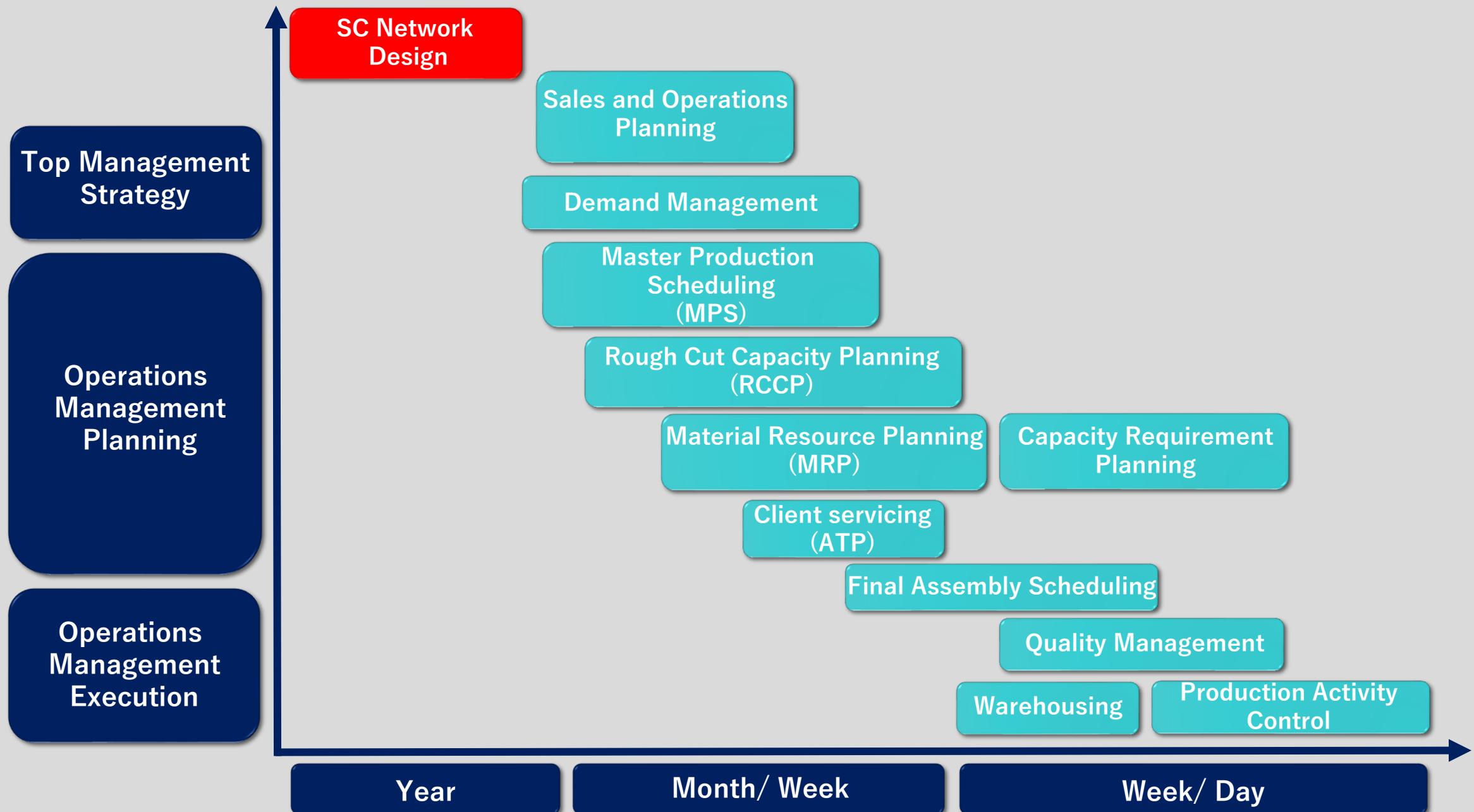
A month-in-the-life of the supply chain manager

SUPPLY CHAIN MANAGEMENT FUNDAMENTALS

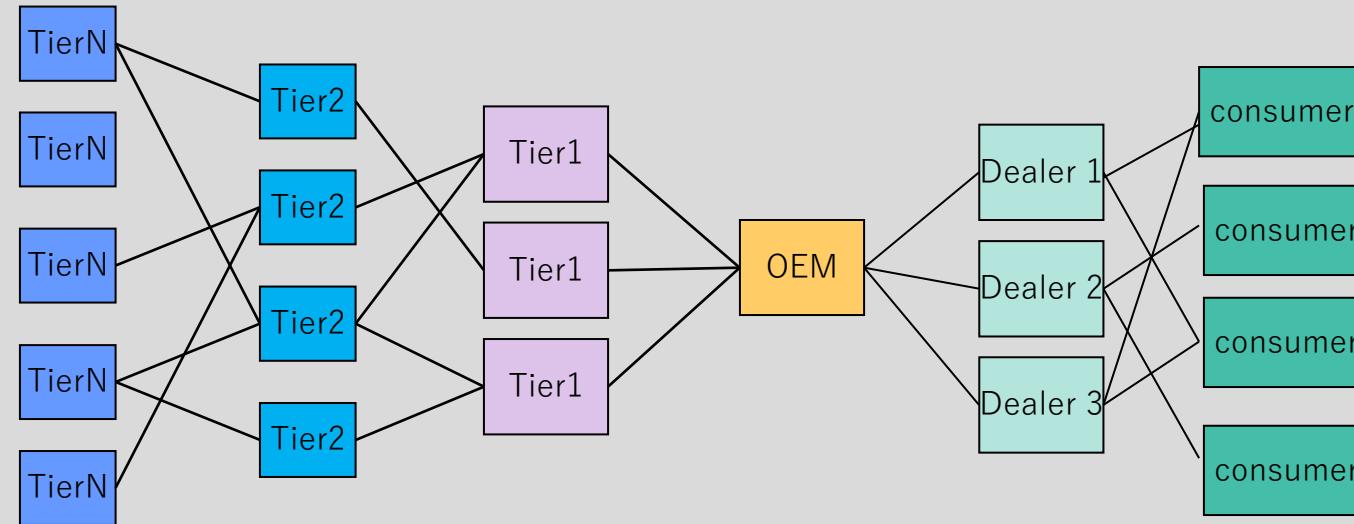




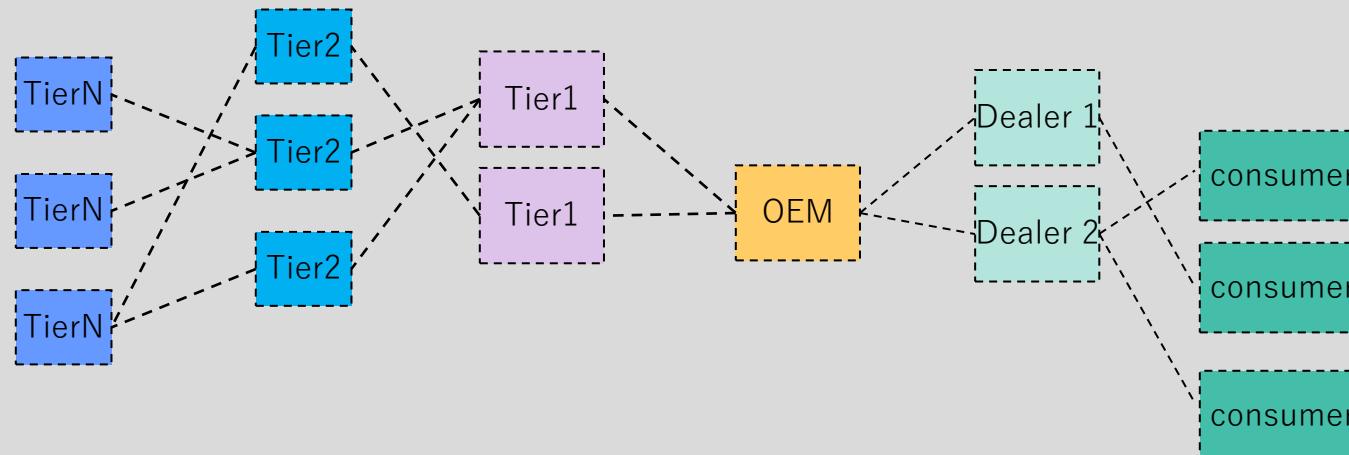
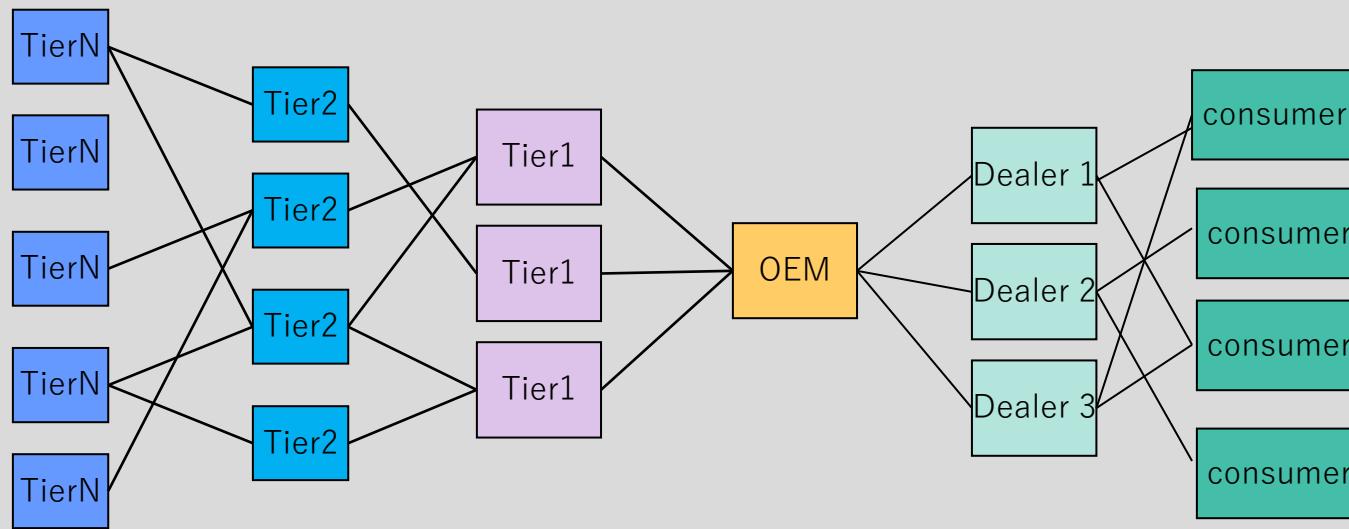




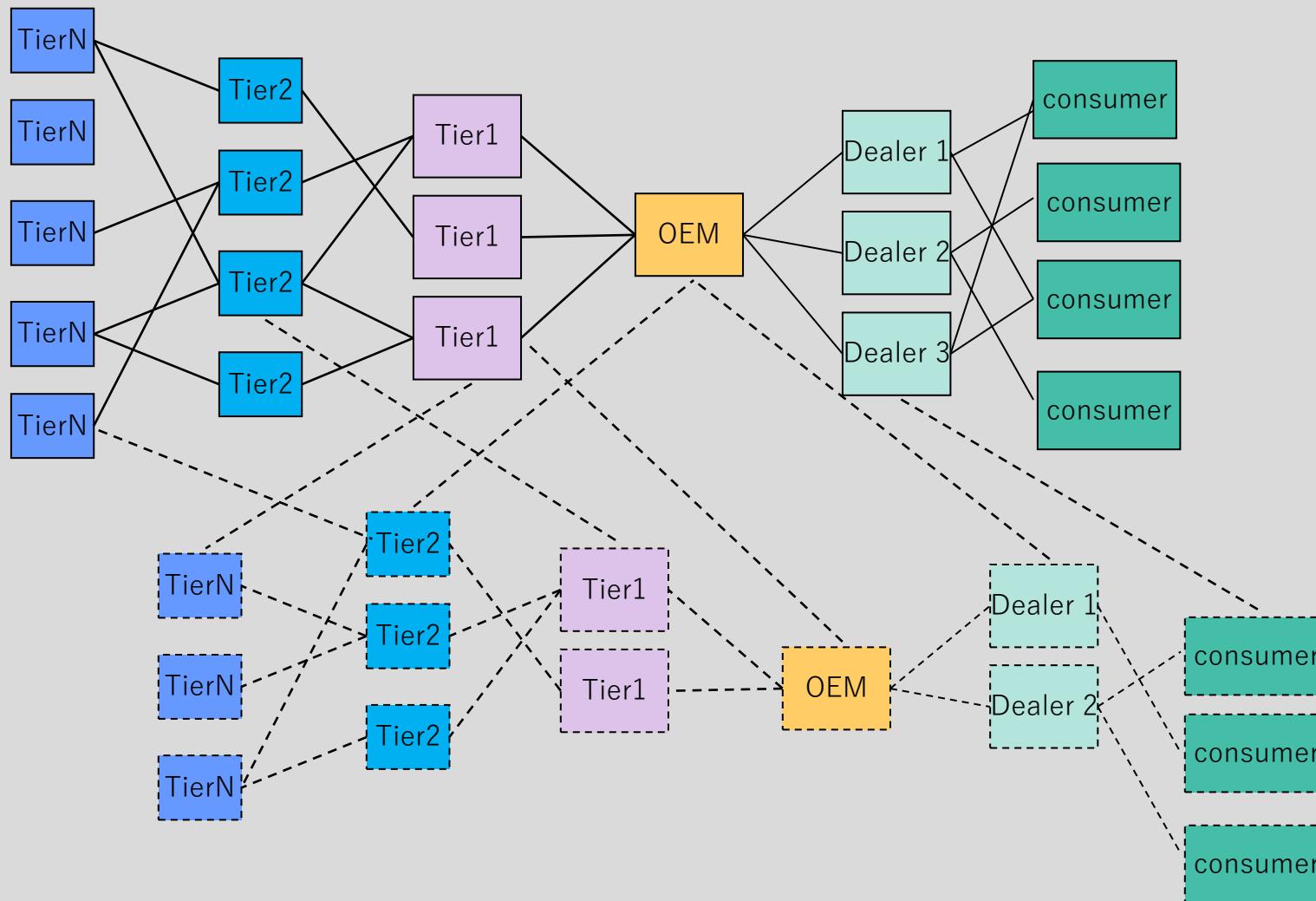
SC network design

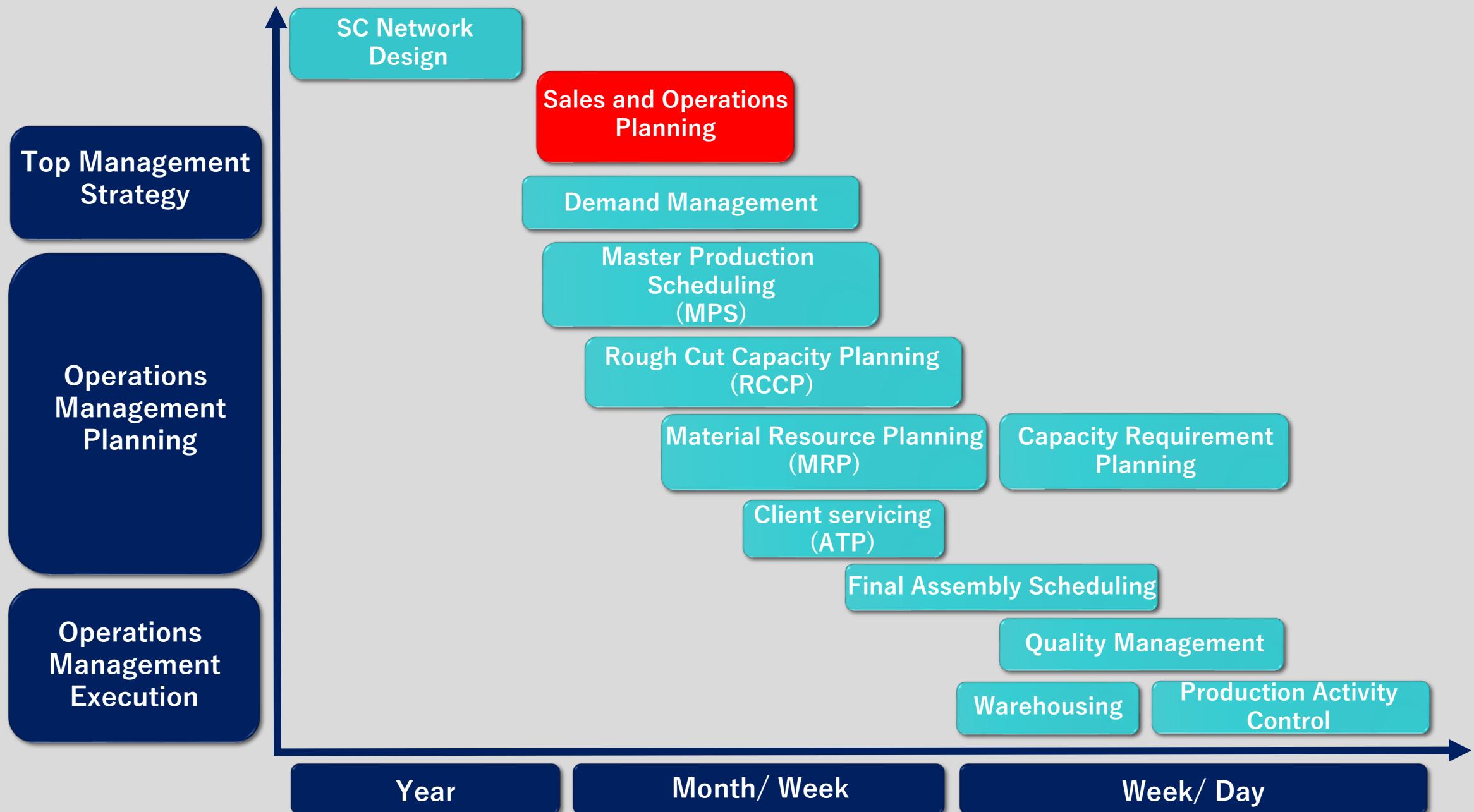


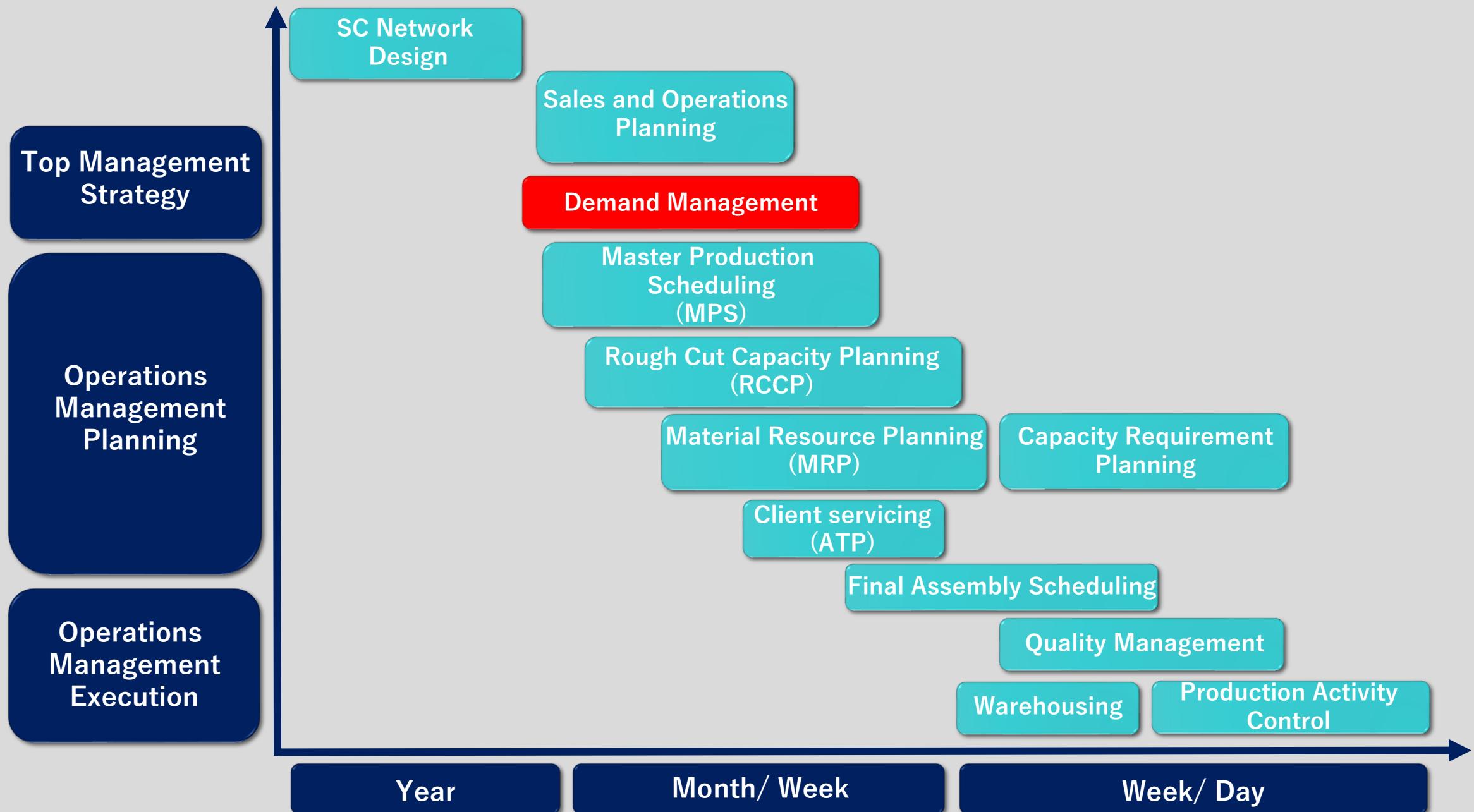
SC network design

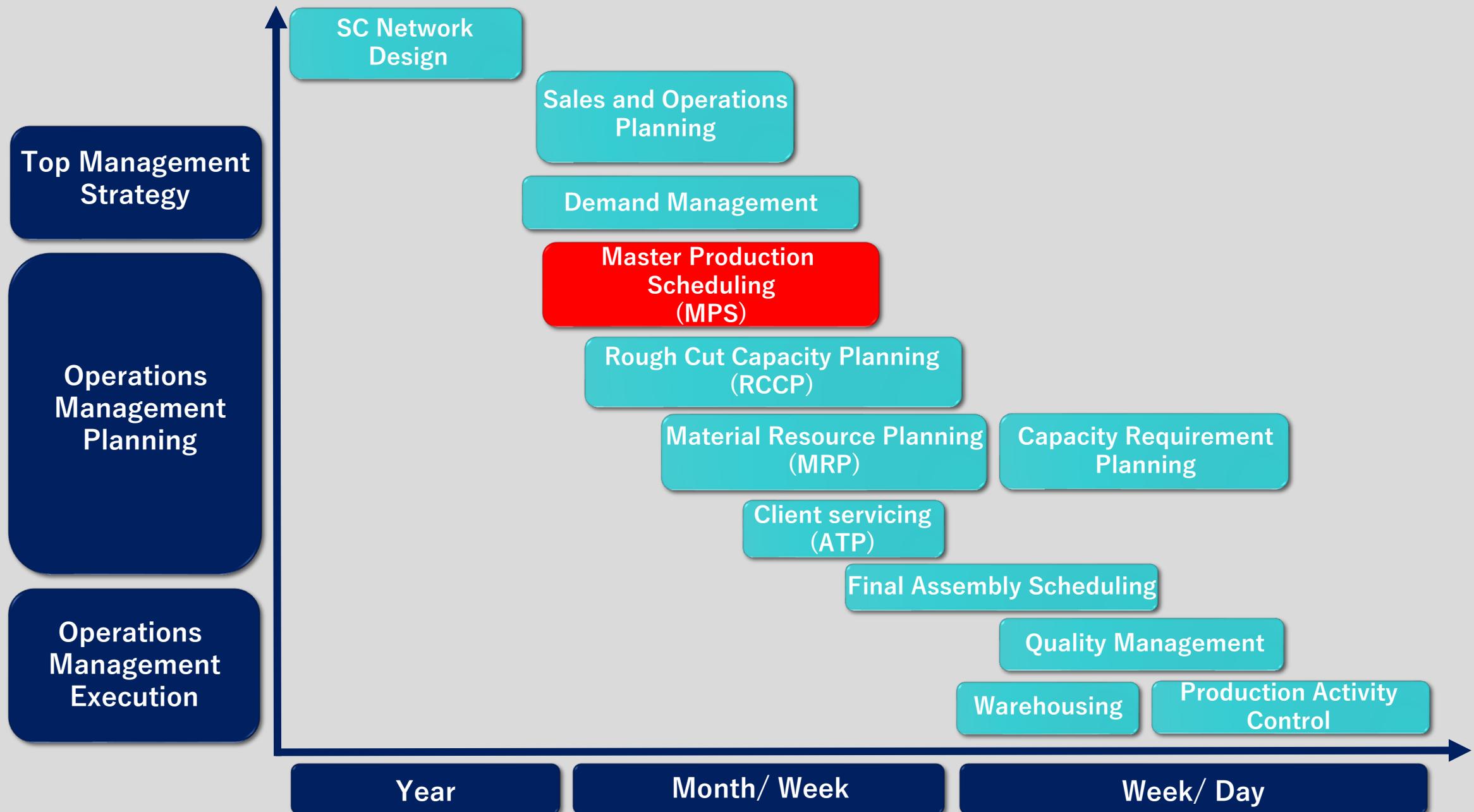


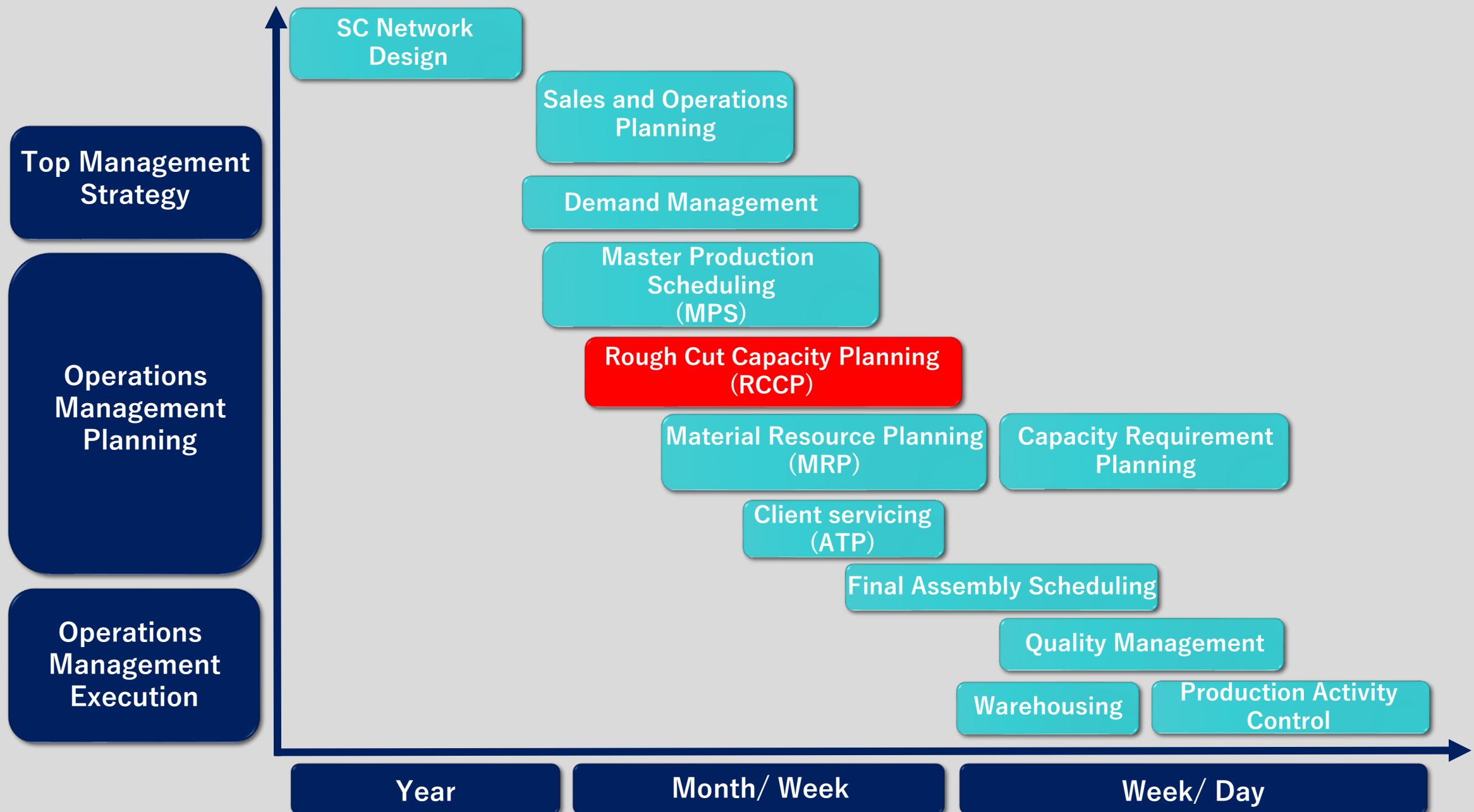
SC network design

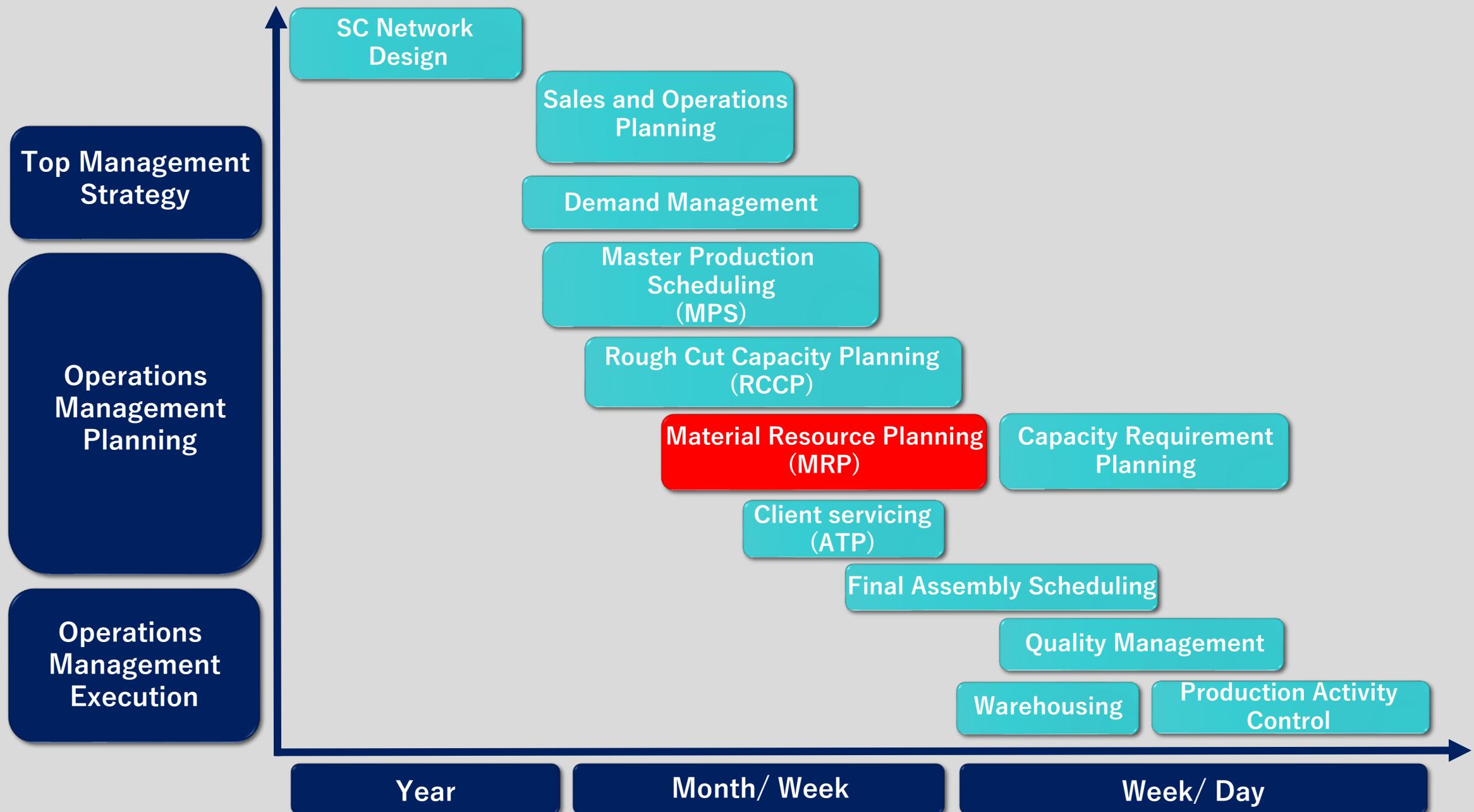




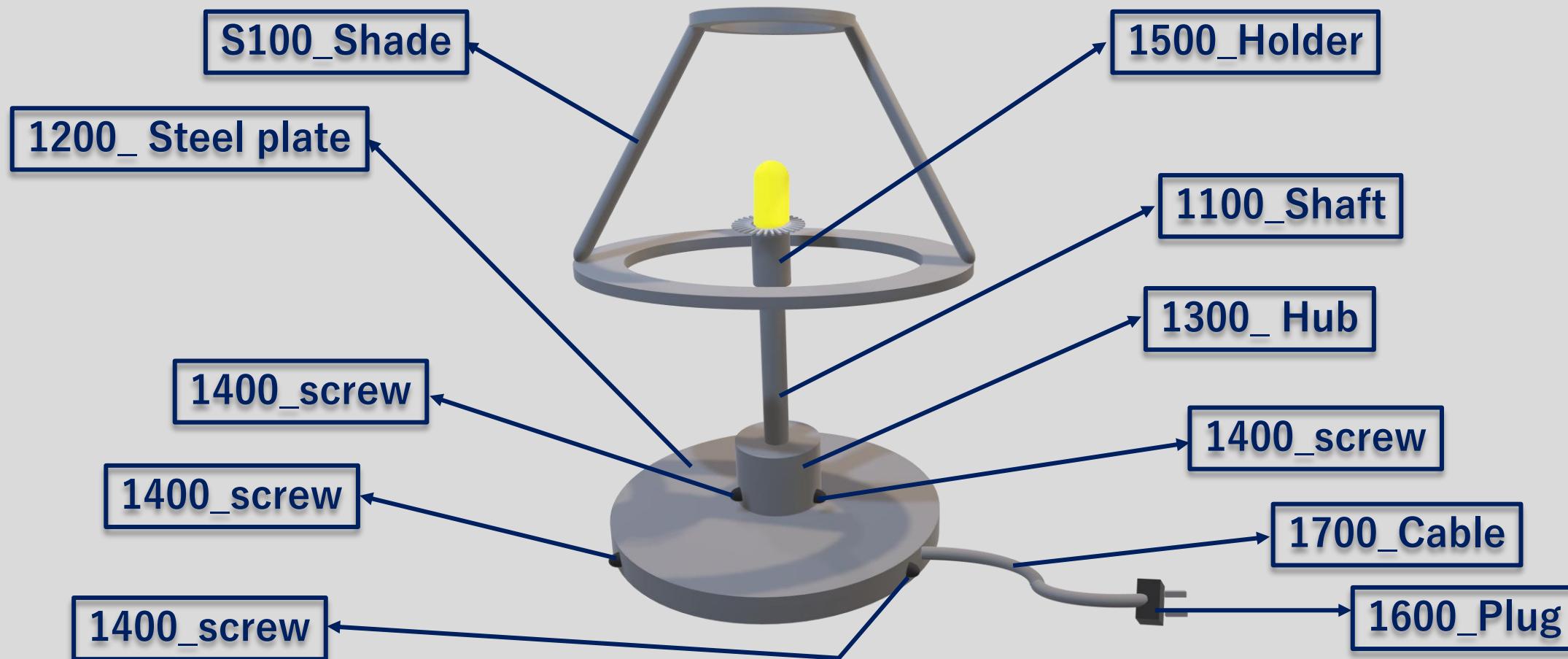








MRP- BOM Basics



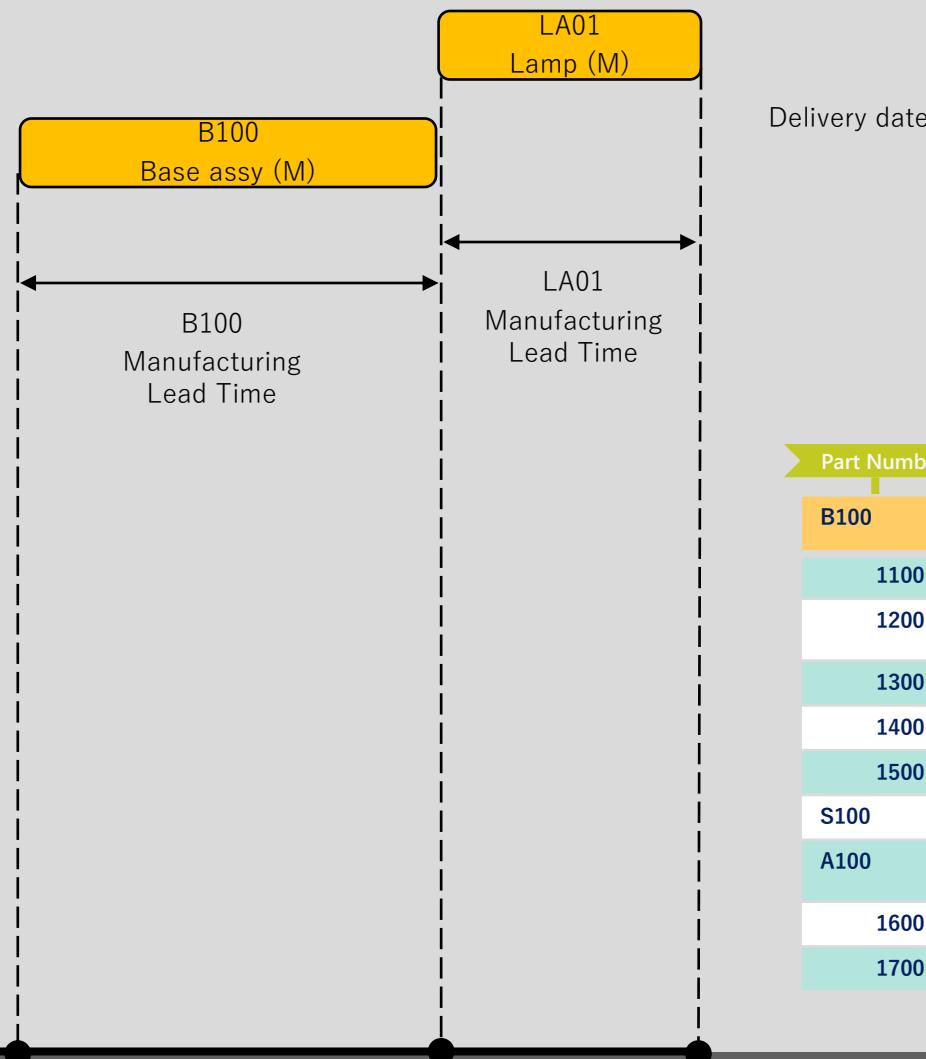
MRP- BOM Basics - LA01 Lamp

Part Number	Description	Qty/ each	UOM
B100	Base assy	1	Each
1100	Shaft	1	Each
1200	Steel plate	1	Each
1300	Hub	1	Each
1400	Screws	4	Each
1500	Holder	1	Each
S100	Shade	1	Each
A100	Socket assy	1	Each
1600	Plug	1	Each
1700	Cable	0.7	Metres

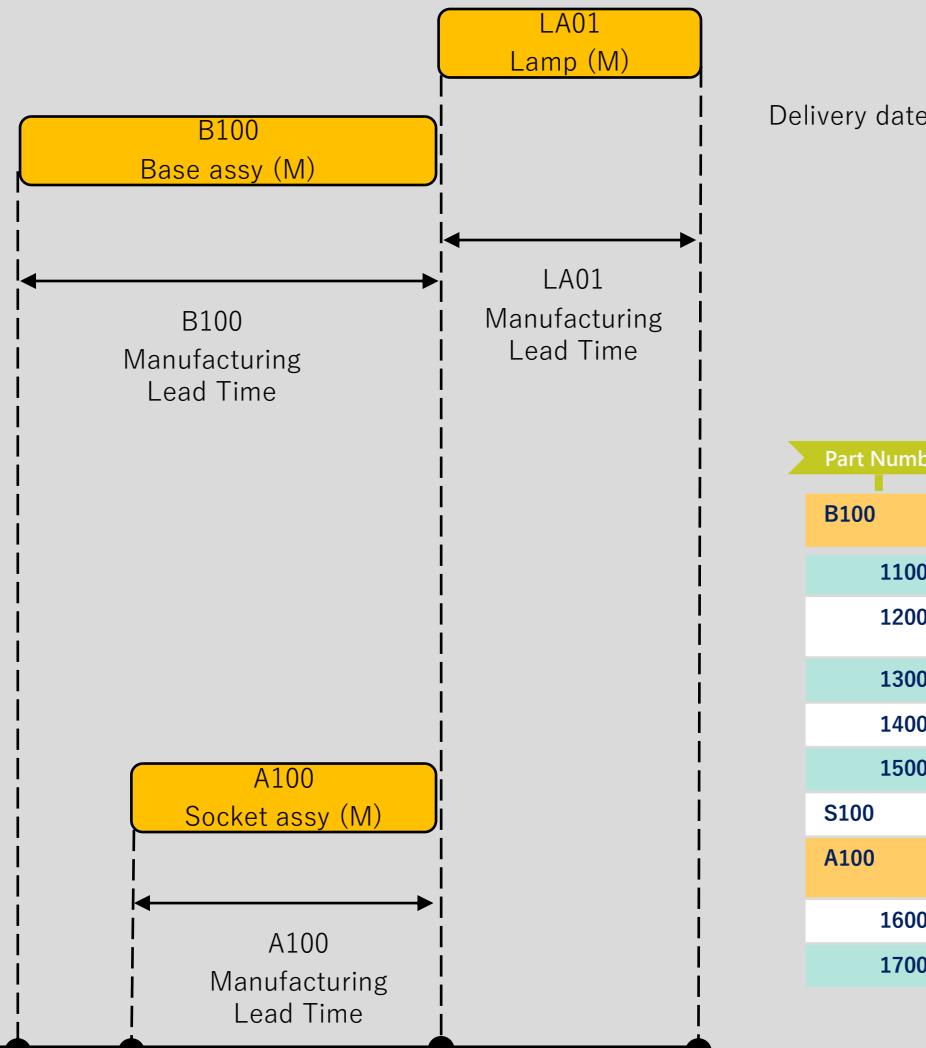
MRP Production BOM



MRP Production BOM

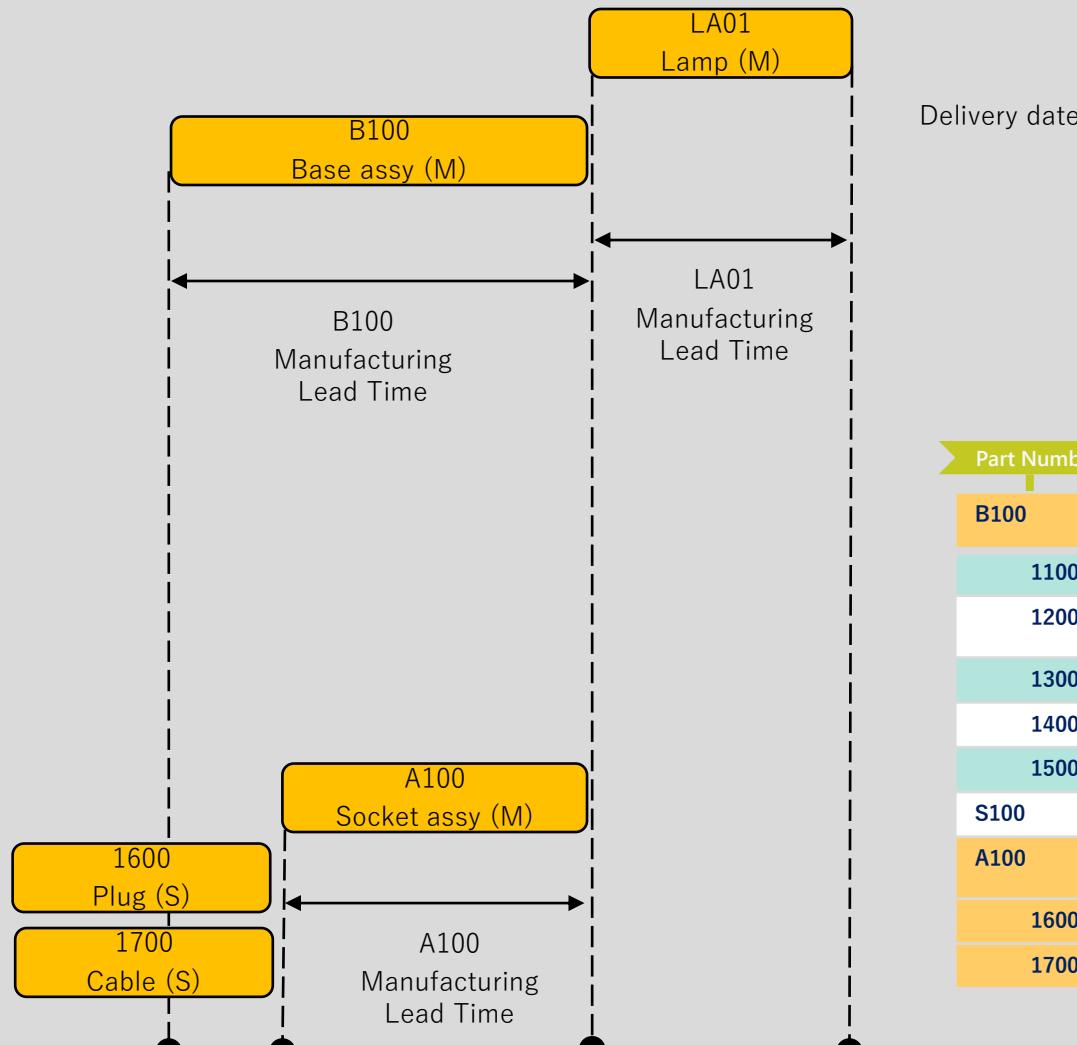


MRP Production BOM



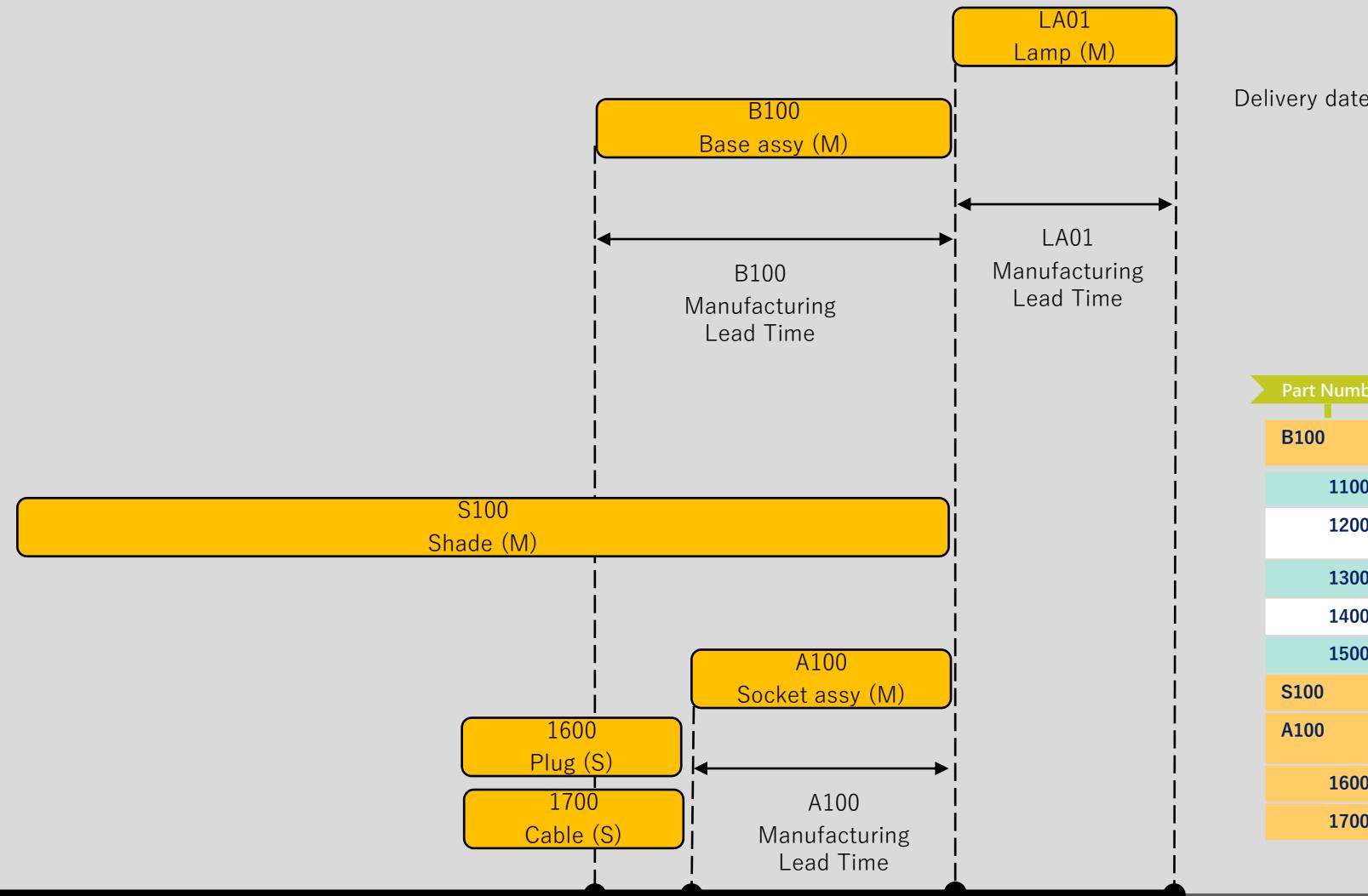
Part Number	Description	Qty/each	UOM
B100	Base assy	1	Each
1100	Shaft	1	Each
1200	Steel plate	1	Each
1300	Hub	1	Each
1400	Screws	4	Each
1500	Holder	1	Each
S100	Shade	1	Each
A100	Socket assy	1	Each
1600	Plug	1	Each
1700	Cable	0.7	Metres

MRP Production BOM



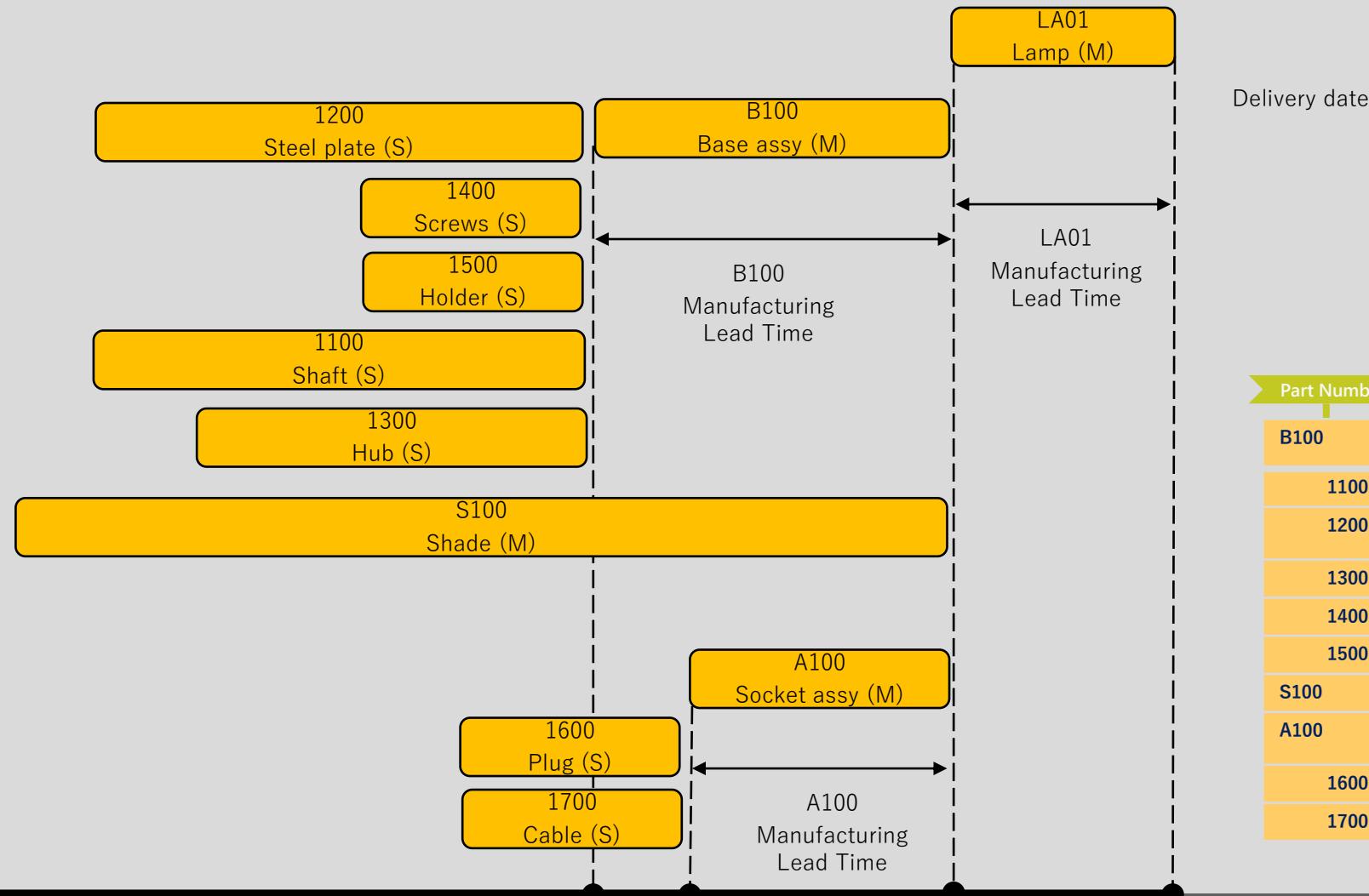
Part Number	Description	Qty/each	UOM
B100	Base assy	1	Each
1100	Shaft	1	Each
1200	Steel plate	1	Each
1300	Hub	1	Each
1400	Screws	4	Each
1500	Holder	1	Each
S100	Shade	1	Each
A100	Socket assy	1	Each
1600	Plug	1	Each
1700	Cable	0.7	Metres

MRP Production BOM



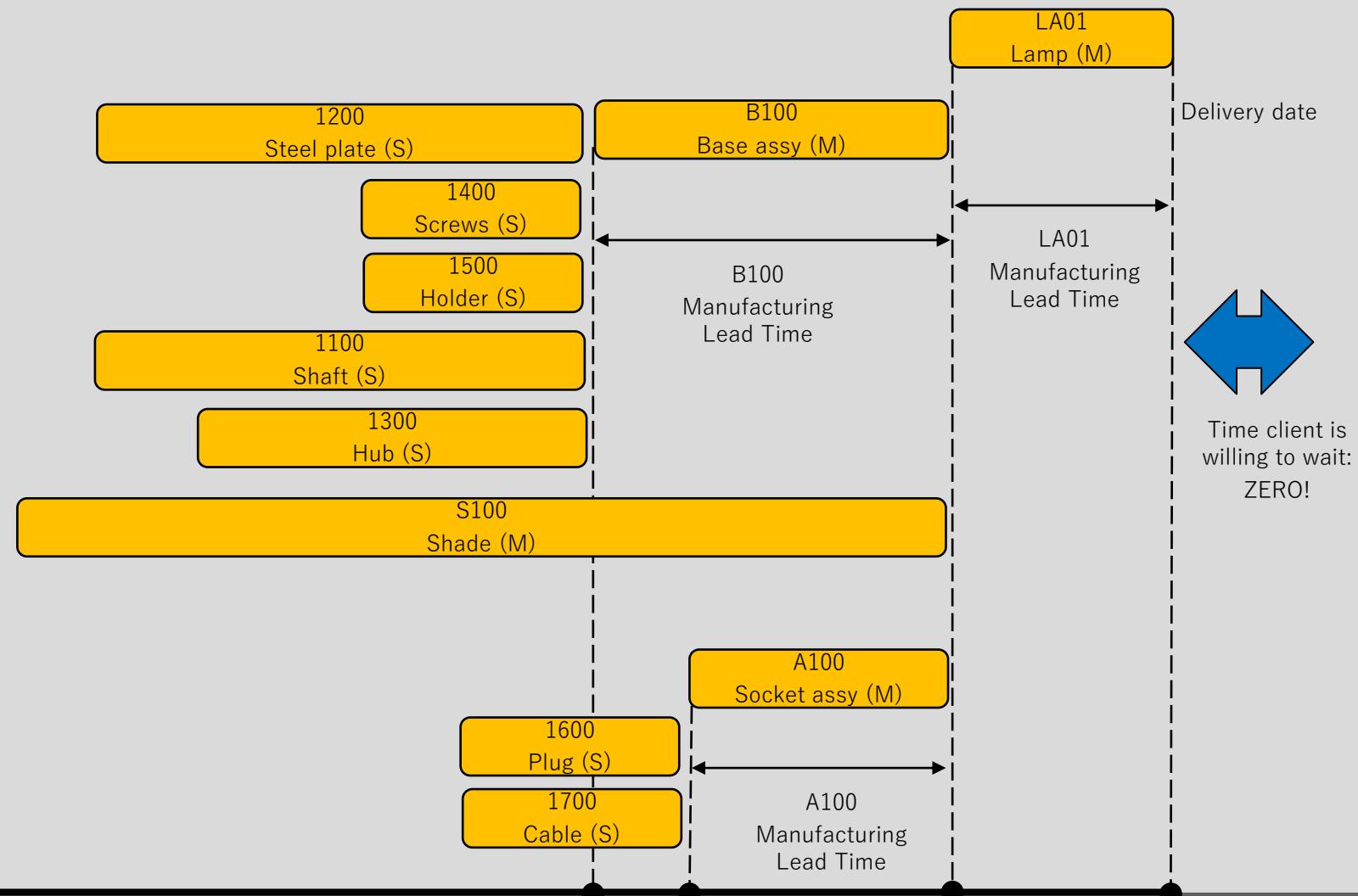
Part Number	Description	Qty/each	UOM
B100	Base assy	1	Each
1100	Shaft	1	Each
1200	Steel plate	1	Each
1300	Hub	1	Each
1400	Screws	4	Each
1500	Holder	1	Each
S100	Shade	1	Each
A100	Socket assy	1	Each
1600	Plug	1	Each
1700	Cable	0.7	Metres

MRP Production BOM

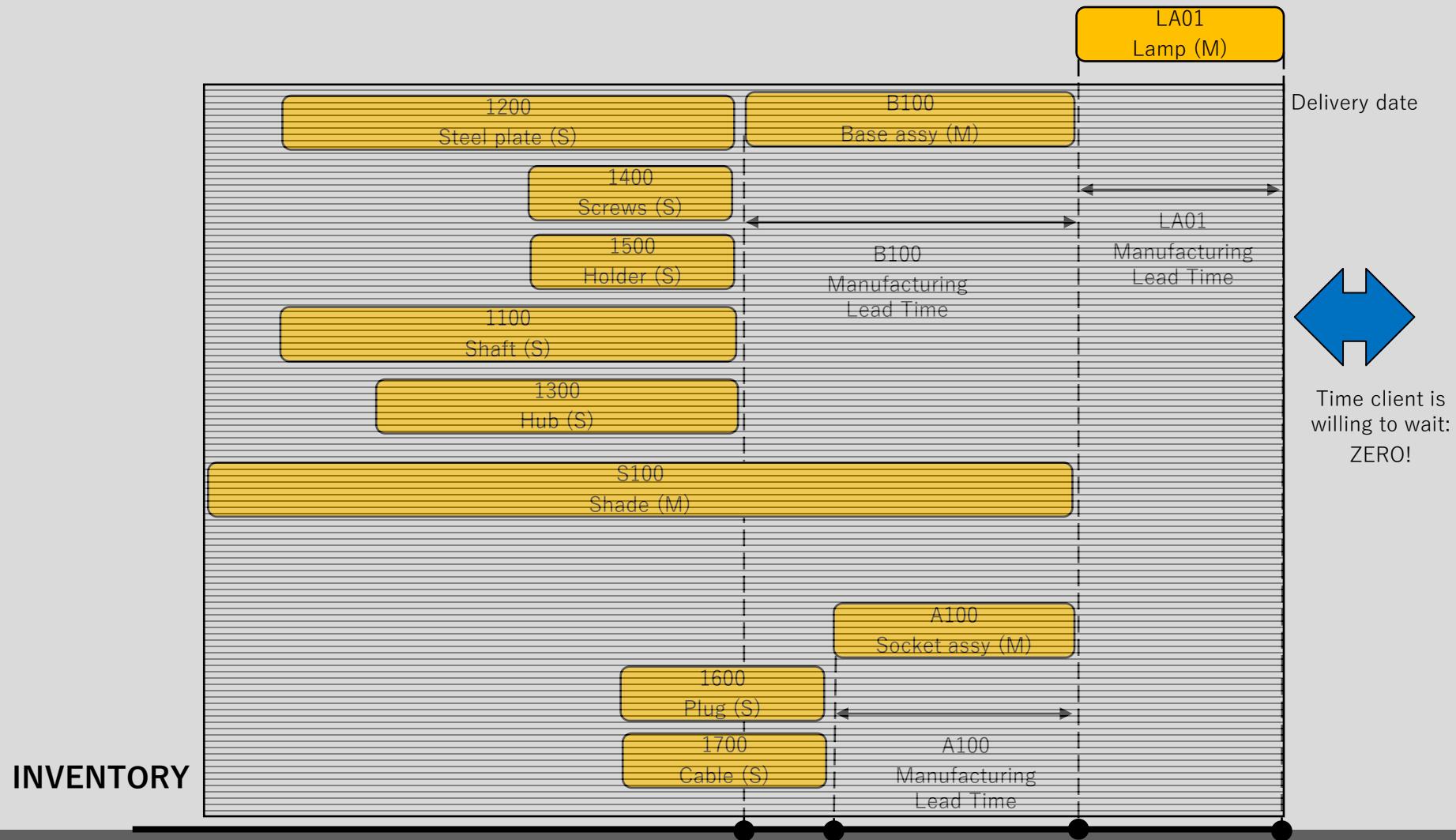


Part Number	Description	Qty/each	UOM
B100	Base assy	1	Each
1100	Shaft	1	Each
1200	Steel plate	1	Each
1300	Hub	1	Each
1400	Screws	4	Each
1500	Holder	1	Each
S100	Shade	1	Each
A100	Socket assy	1	Each
1600	Plug	1	Each
1700	Cable	0.7	Metres

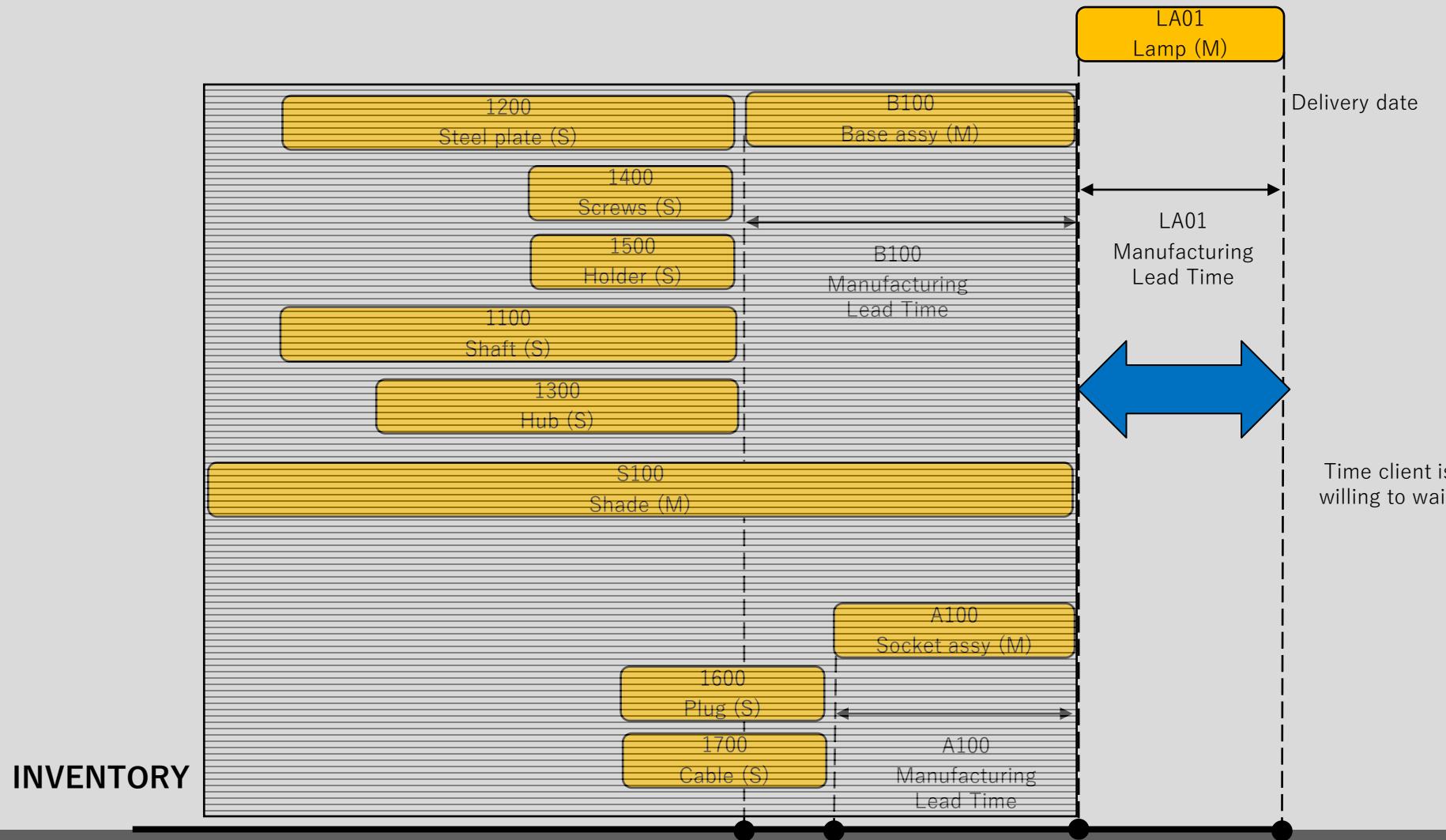
MRP Production BOM



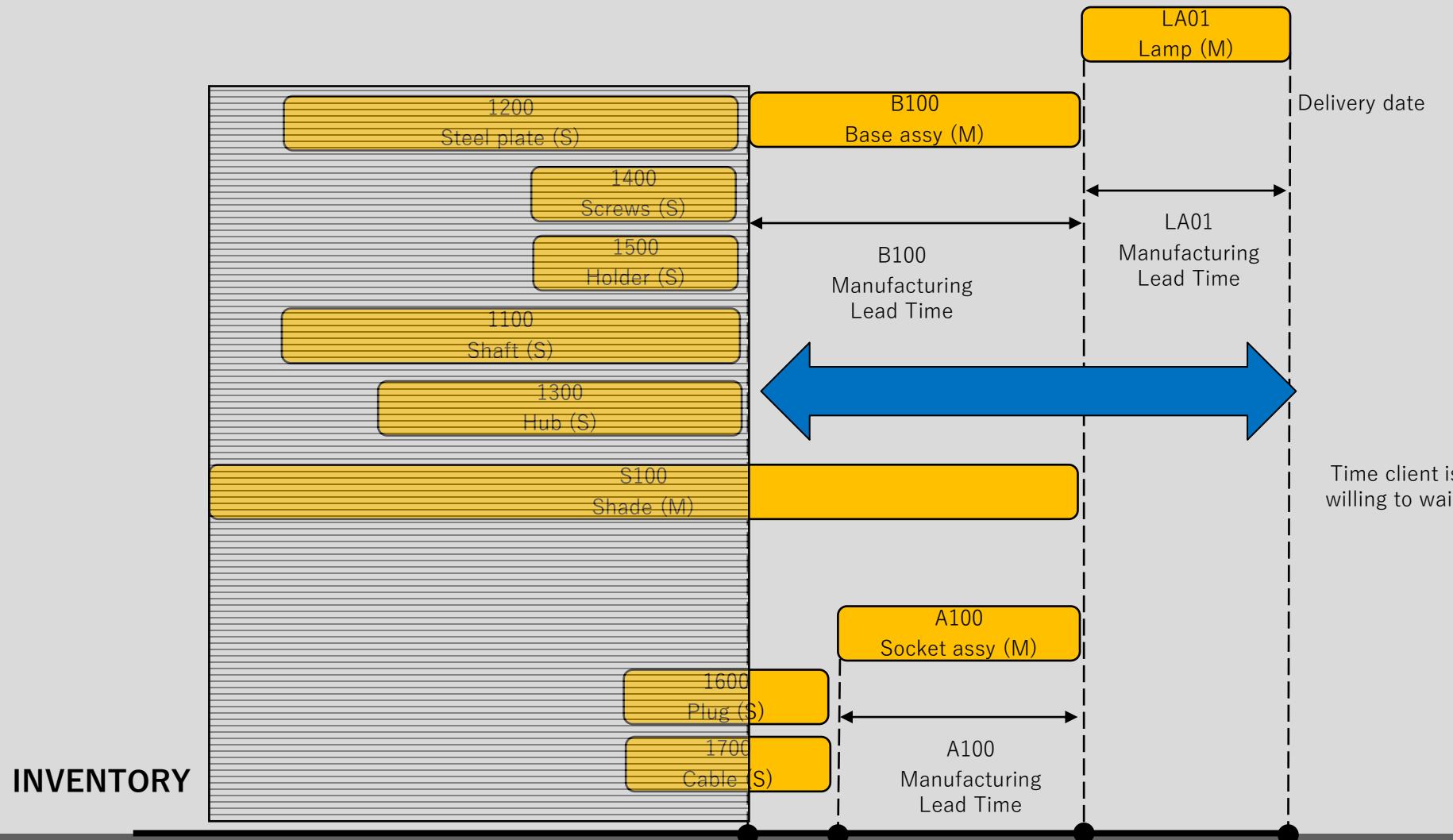
MRP Production BOM

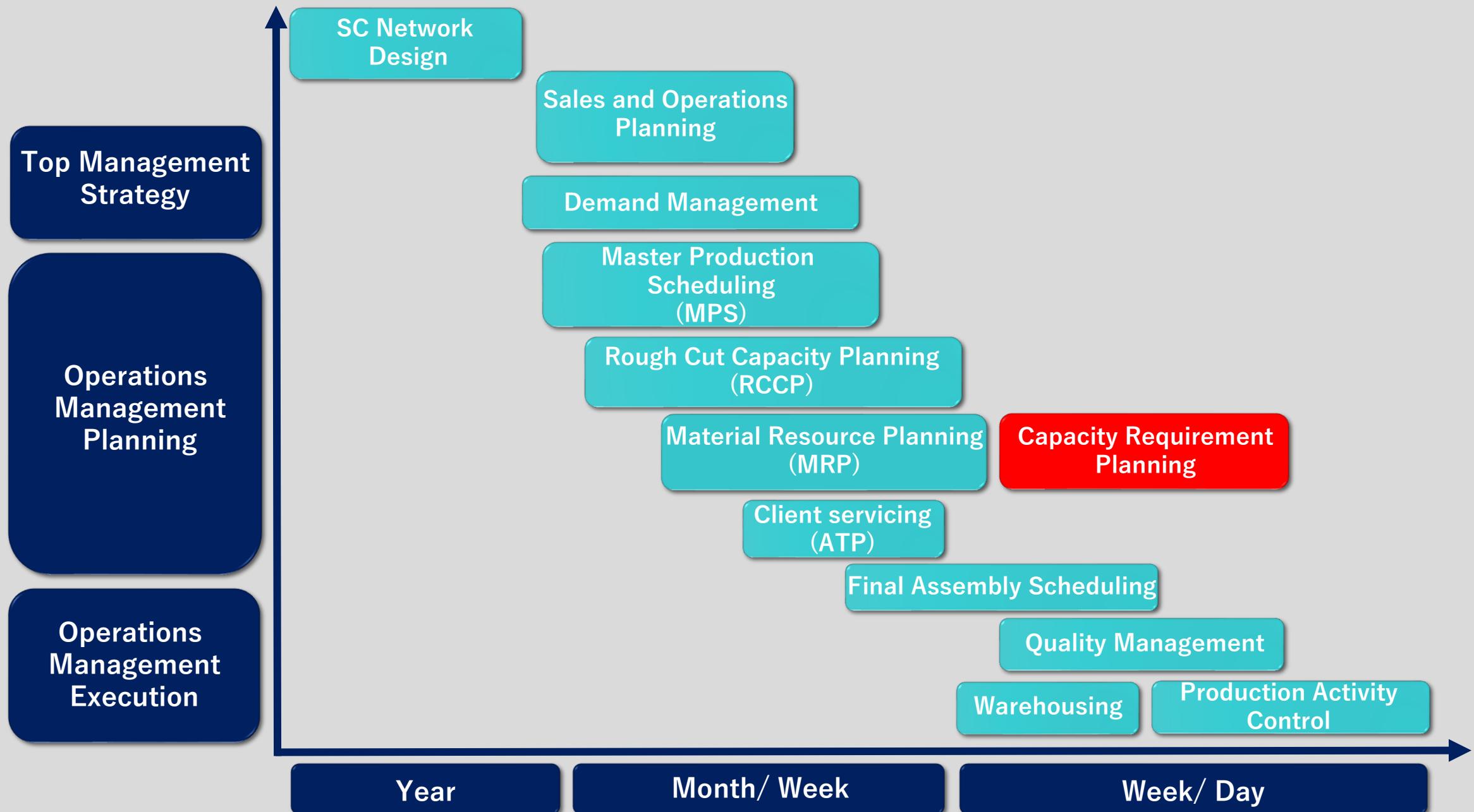


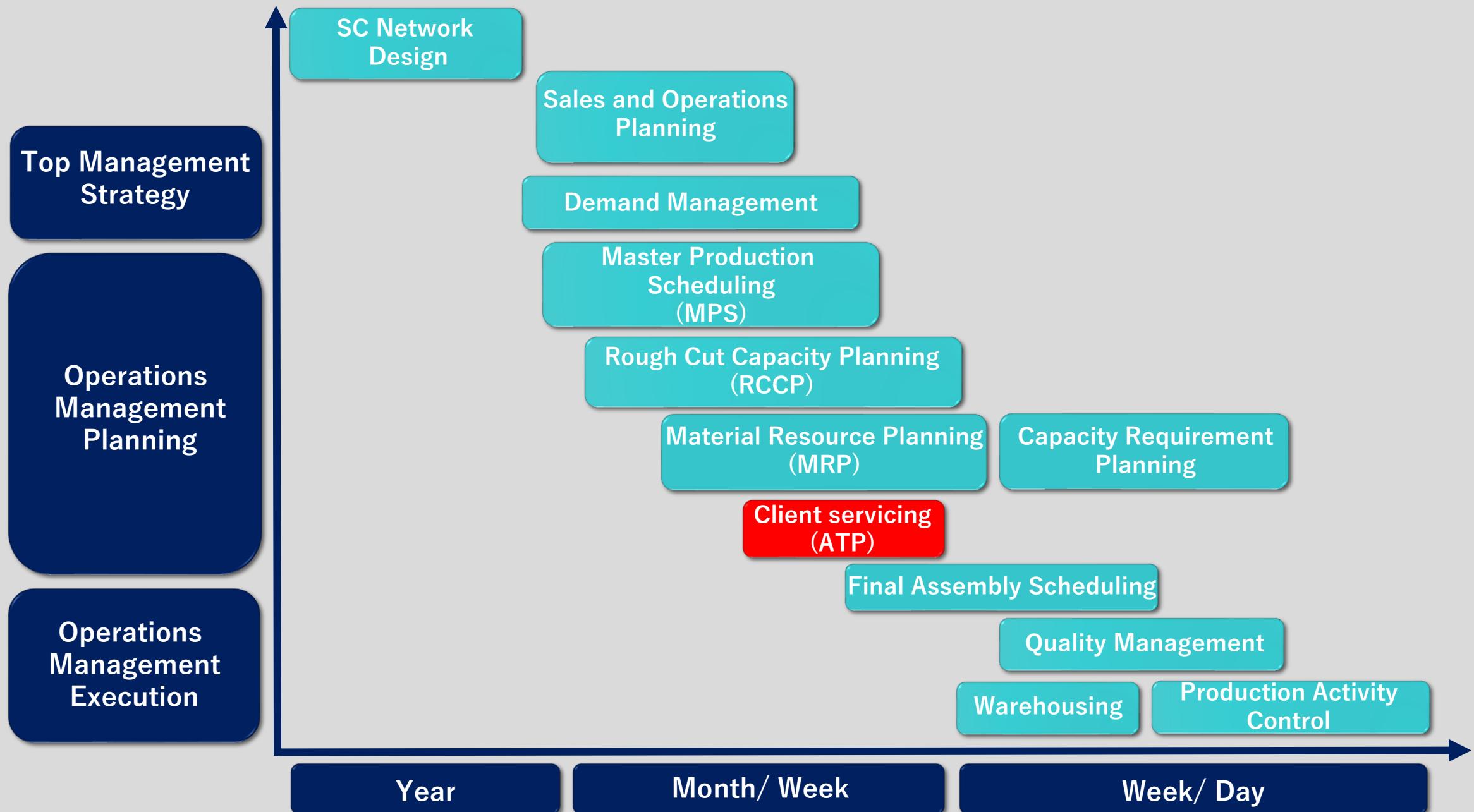
MRP Production BOM

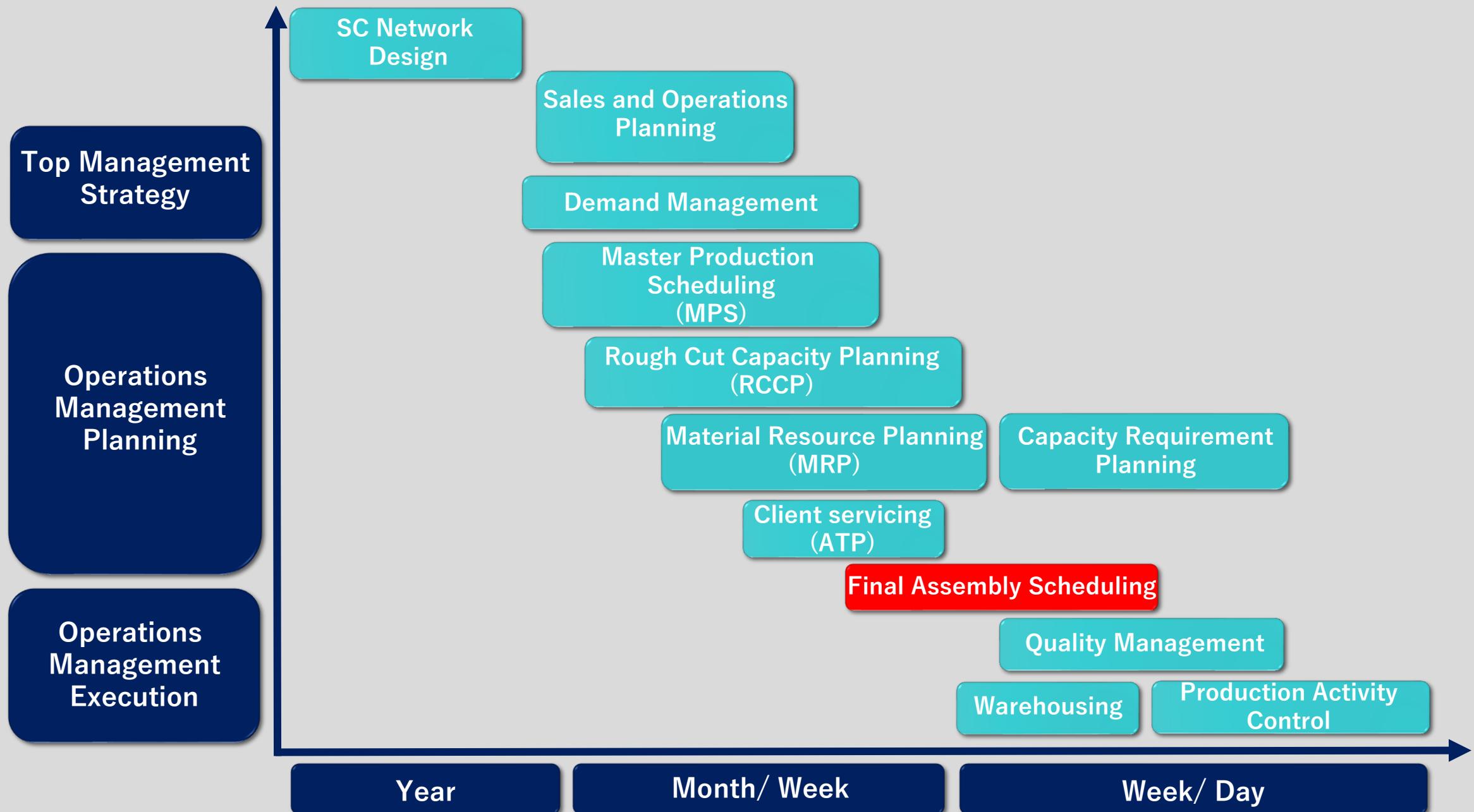


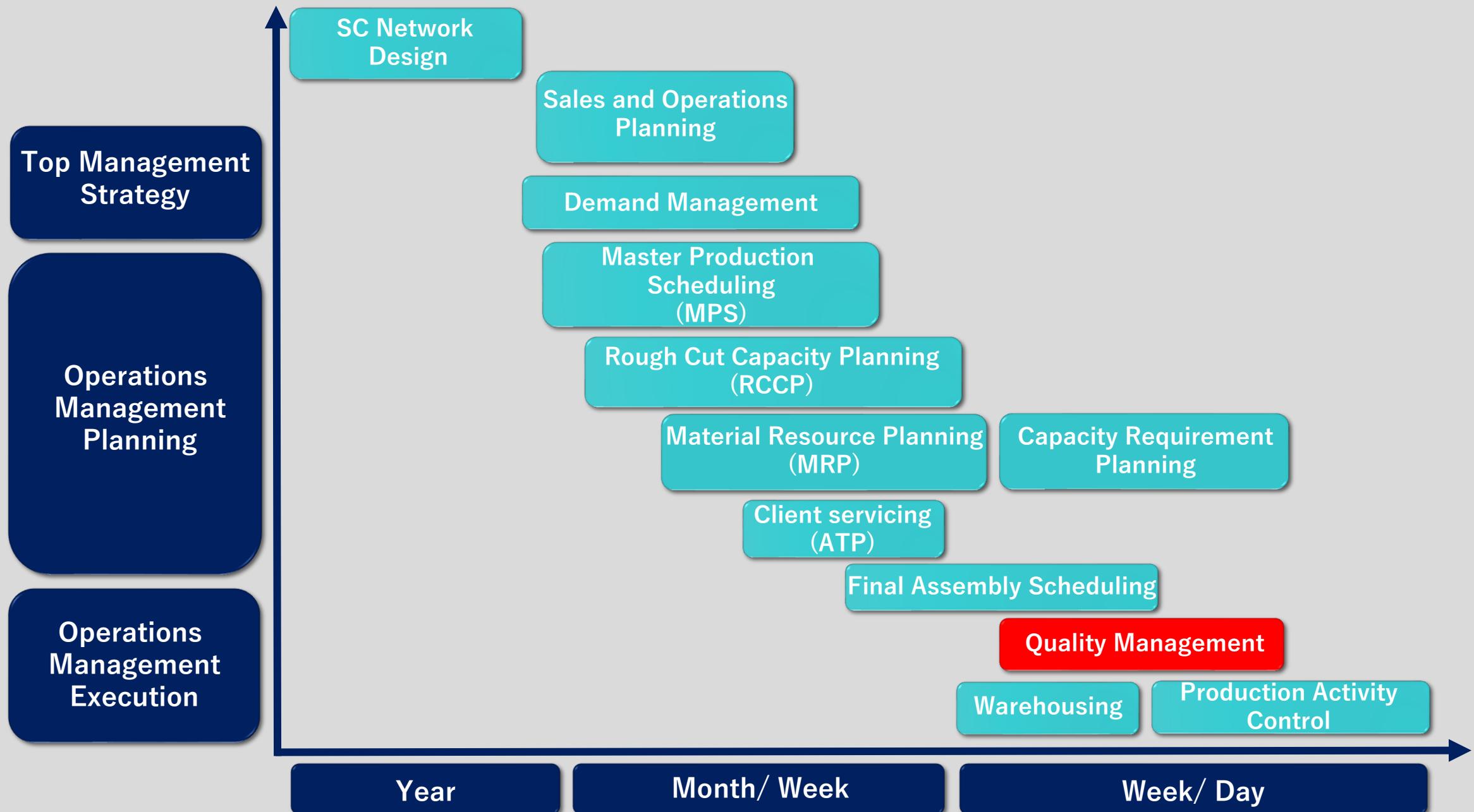
MRP Production BOM

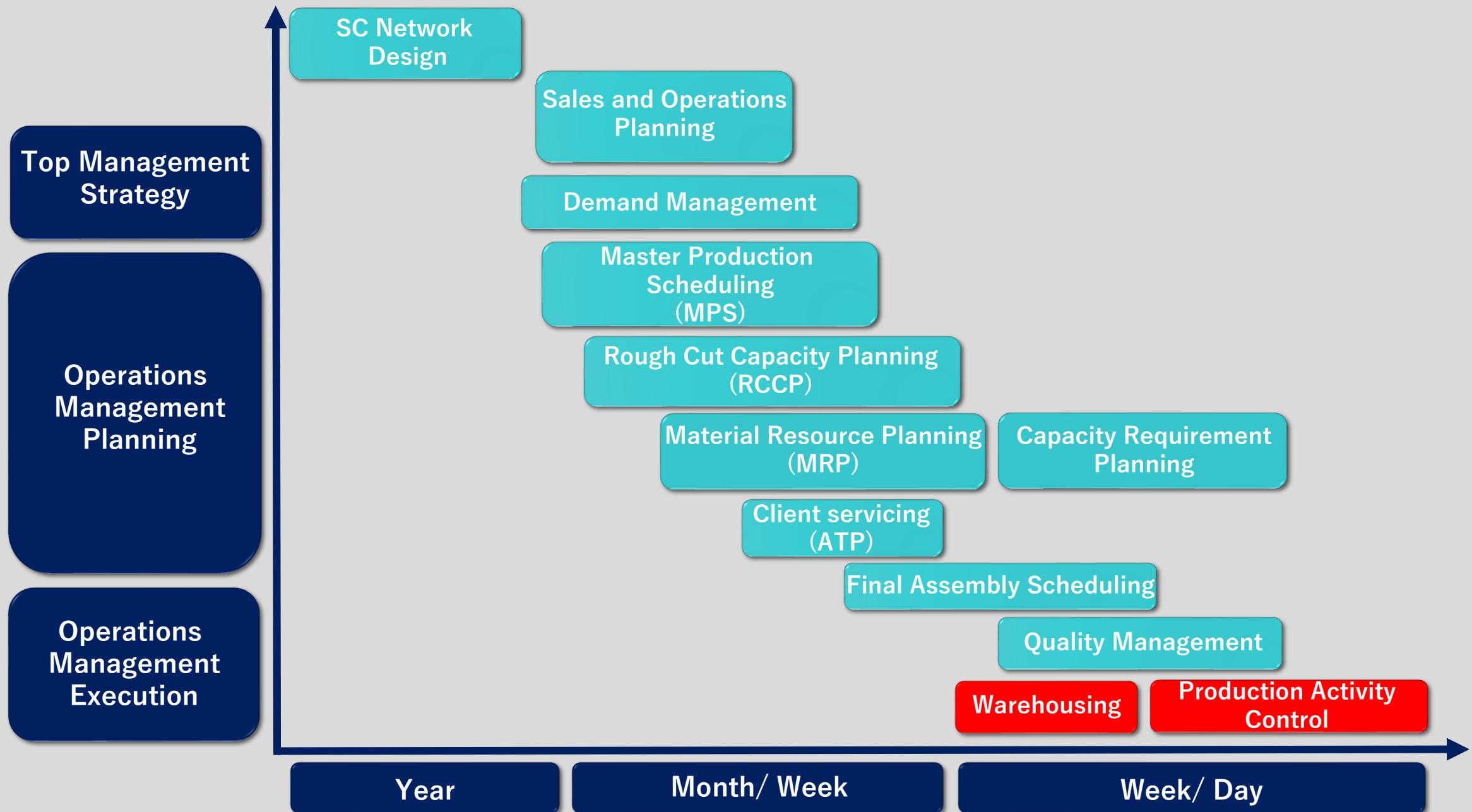




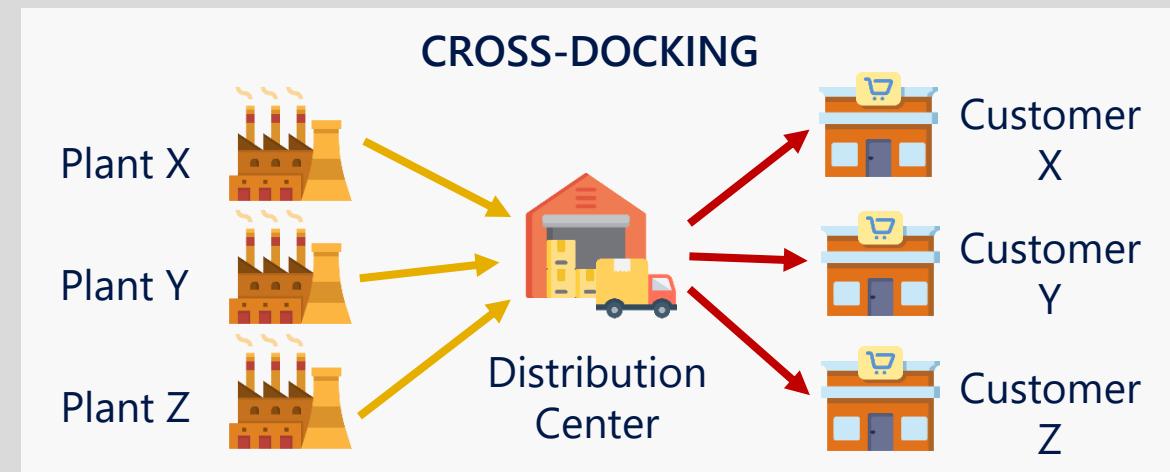
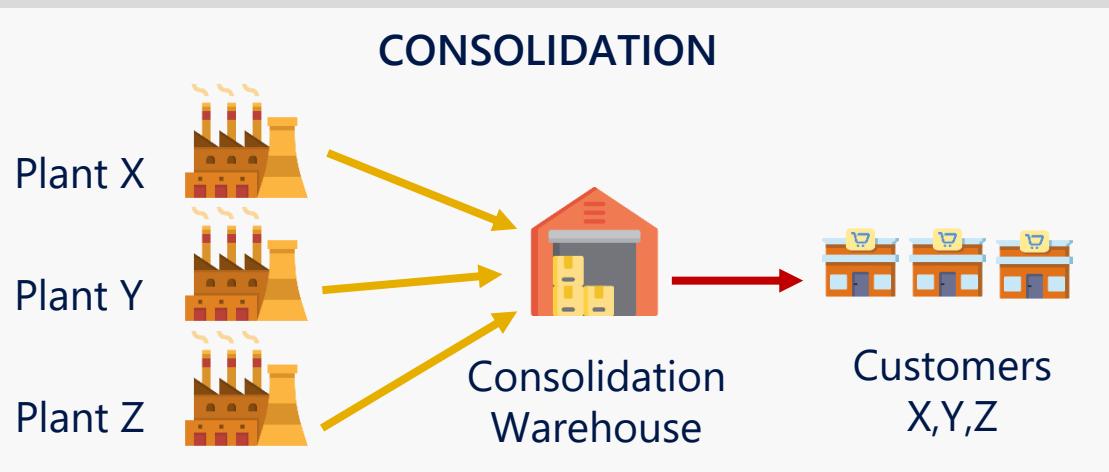
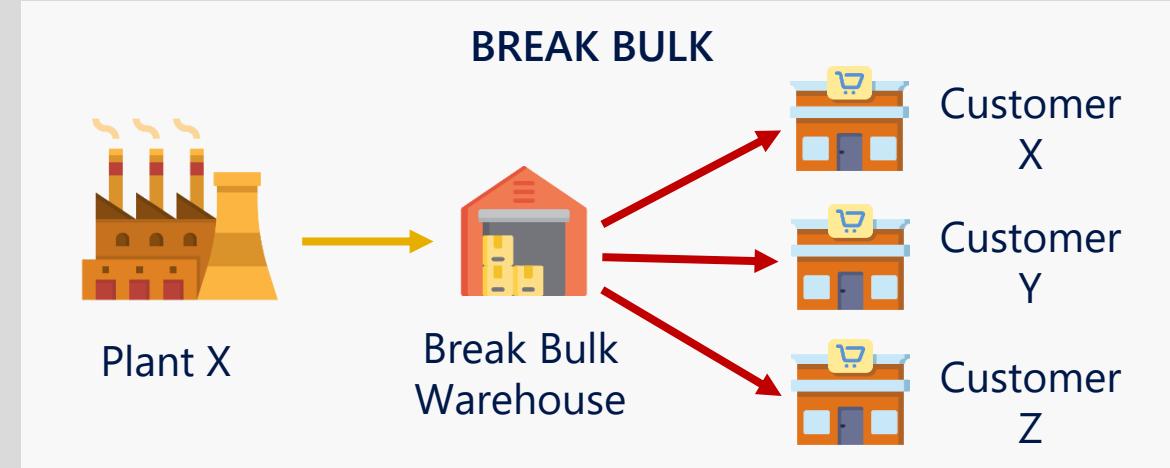
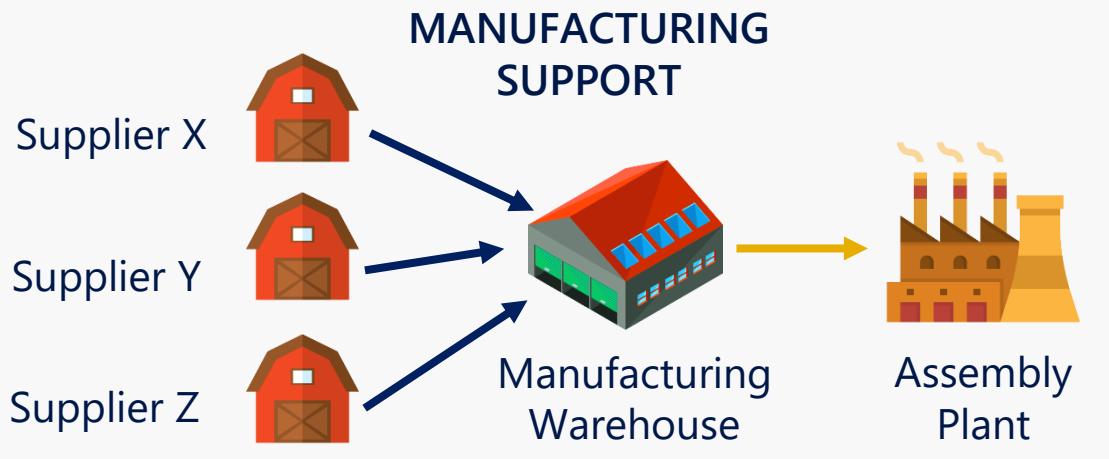








Different Models of Warehousing



MODULE 1 - SUMMARY

Supply Chain Management Fundamentals

Supply Chain Management Fundamentals

- Understand the business processes of a supply chain
- Learn the roles and responsibilities of a supply chain manager.
- Evaluate how supply chain management creates corporate value.
- You will be ready to understand which parts of a supply chain benefit from enterprise blockchain applications.

MODULE 2

Supply Chain Management Value Creation



101 Blockchains

Supply Chain Management Value Creation

- Understand how supply chain management creates value.
- Learn the key value drivers of SCM.
- Evaluate how to measure SCM value.
- You will be able to determine which parts of a supply chain benefit from enterprise blockchain applications.

Supply Chain Management Value Creation

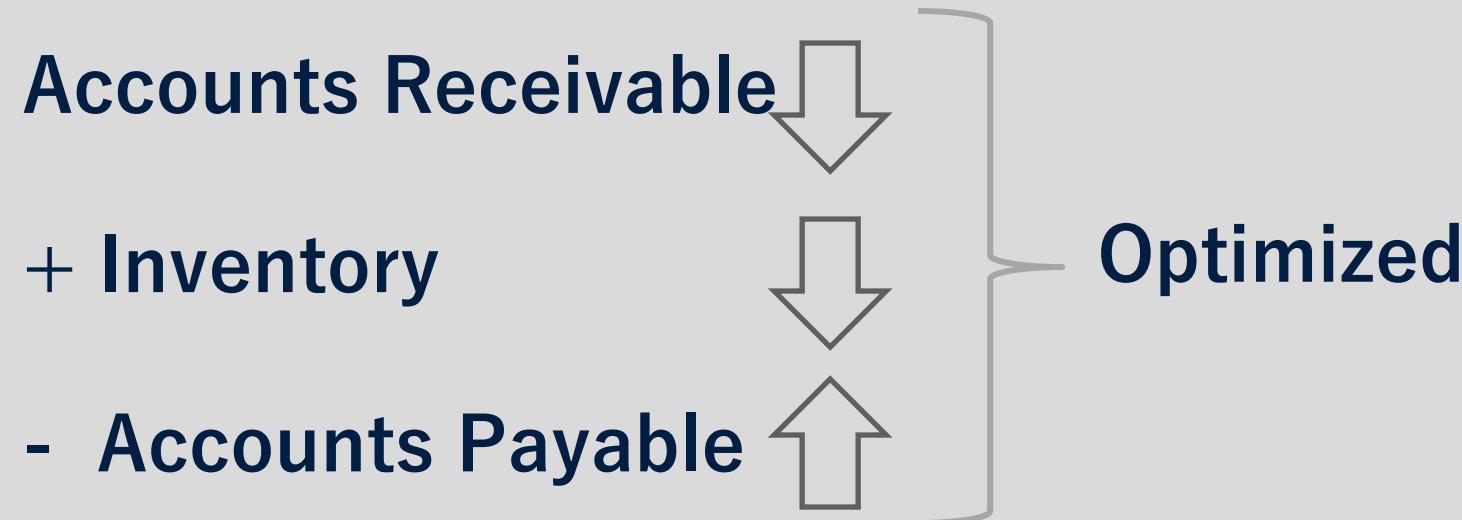
- **Lesson 1: Working capital measures corporate value.**
- **Lesson 2: Measuring the value of SCM with the Economic Value Added (EVA) model.**
- **Lesson 3: How SCM impacts working capital.**

Working capital measures corporate value

SUPPLY CHAIN MANAGEMENT VALUE CREATION

Working capital

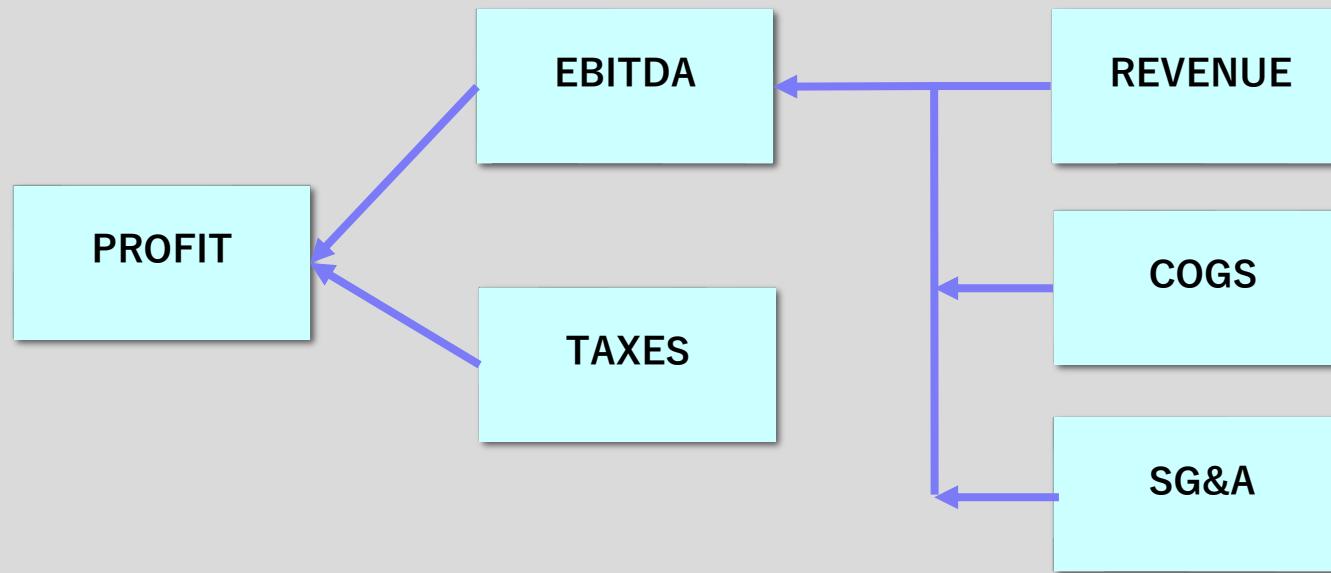
Working Capital =



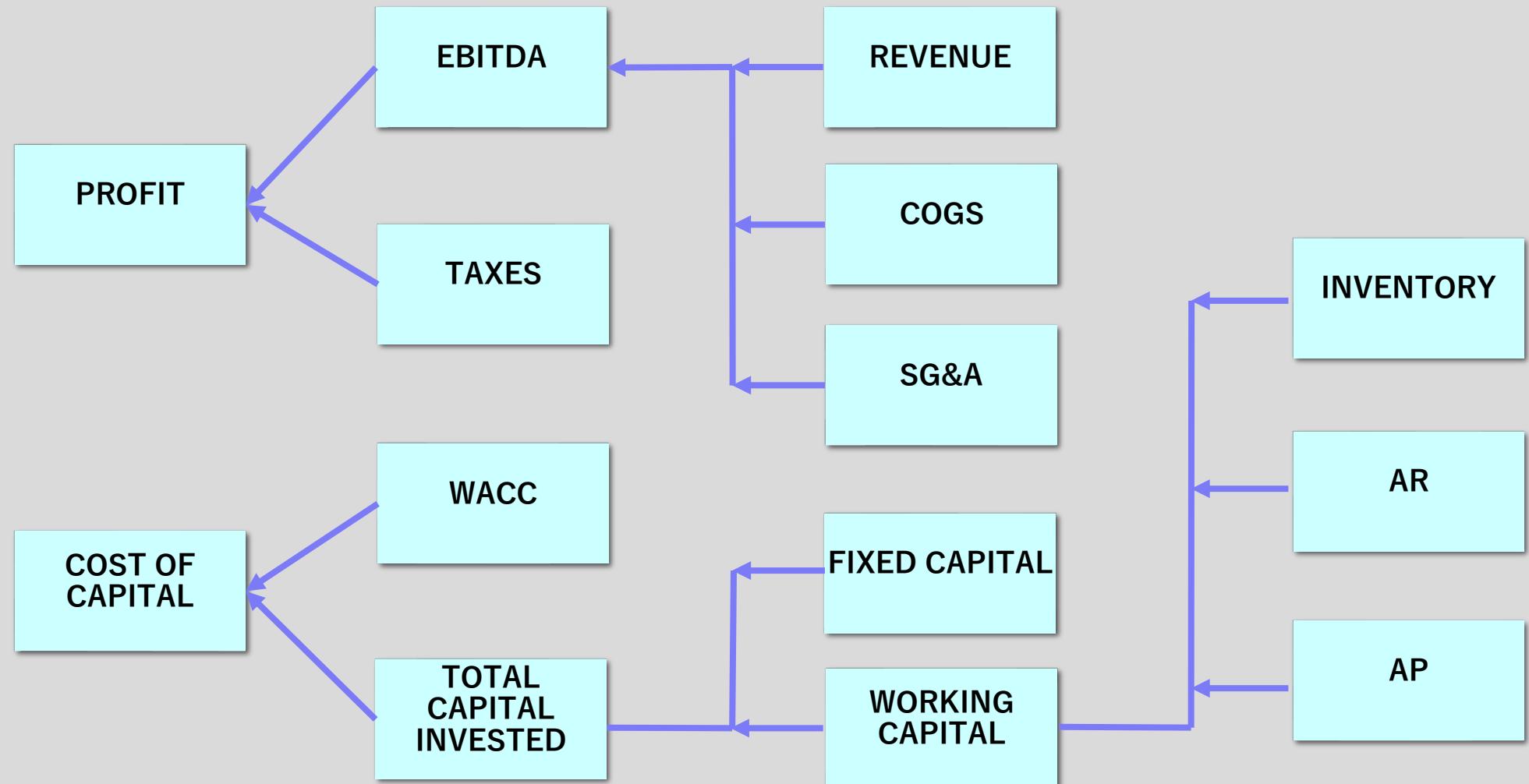
Measuring the value of SCM with the Economic Value Added (EVA) model

SUPPLY CHAIN MANAGEMENT VALUE CREATION

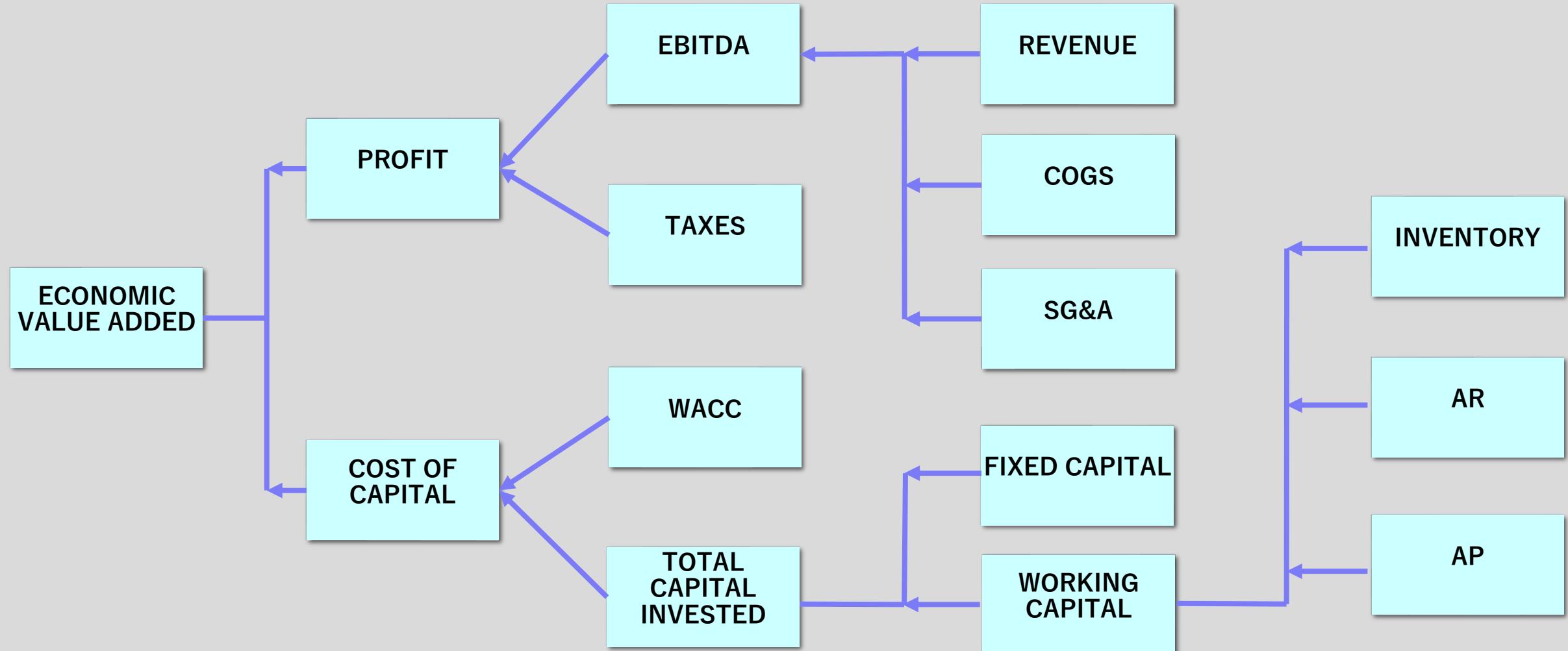
The EVA Model



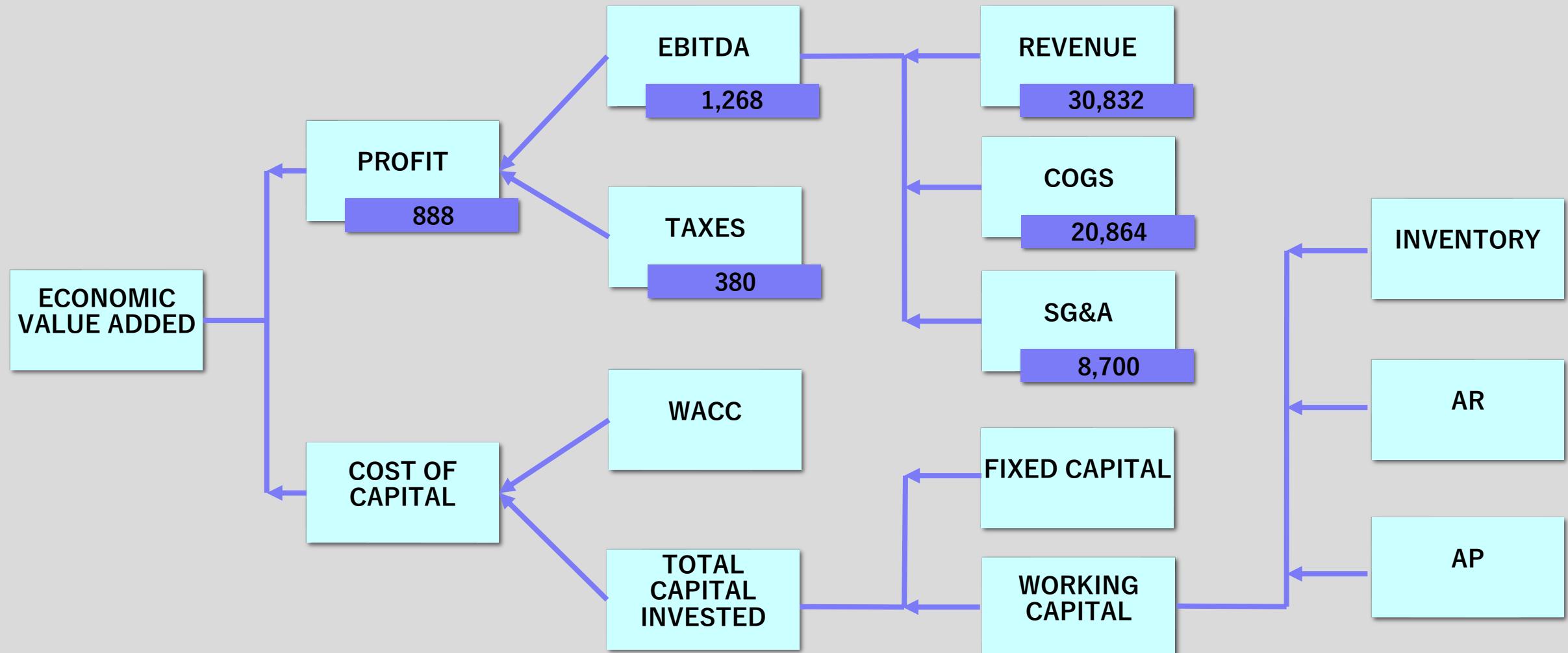
The EVA Model



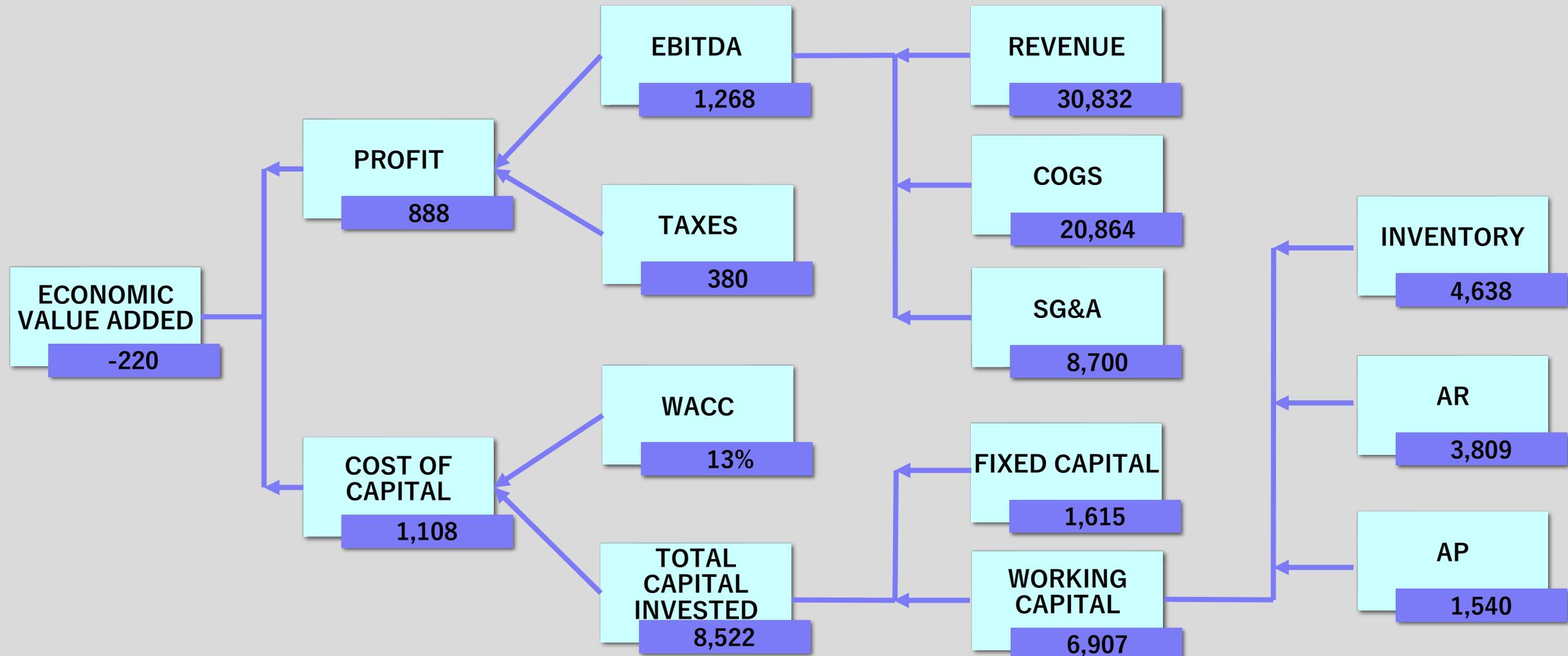
The EVA Model



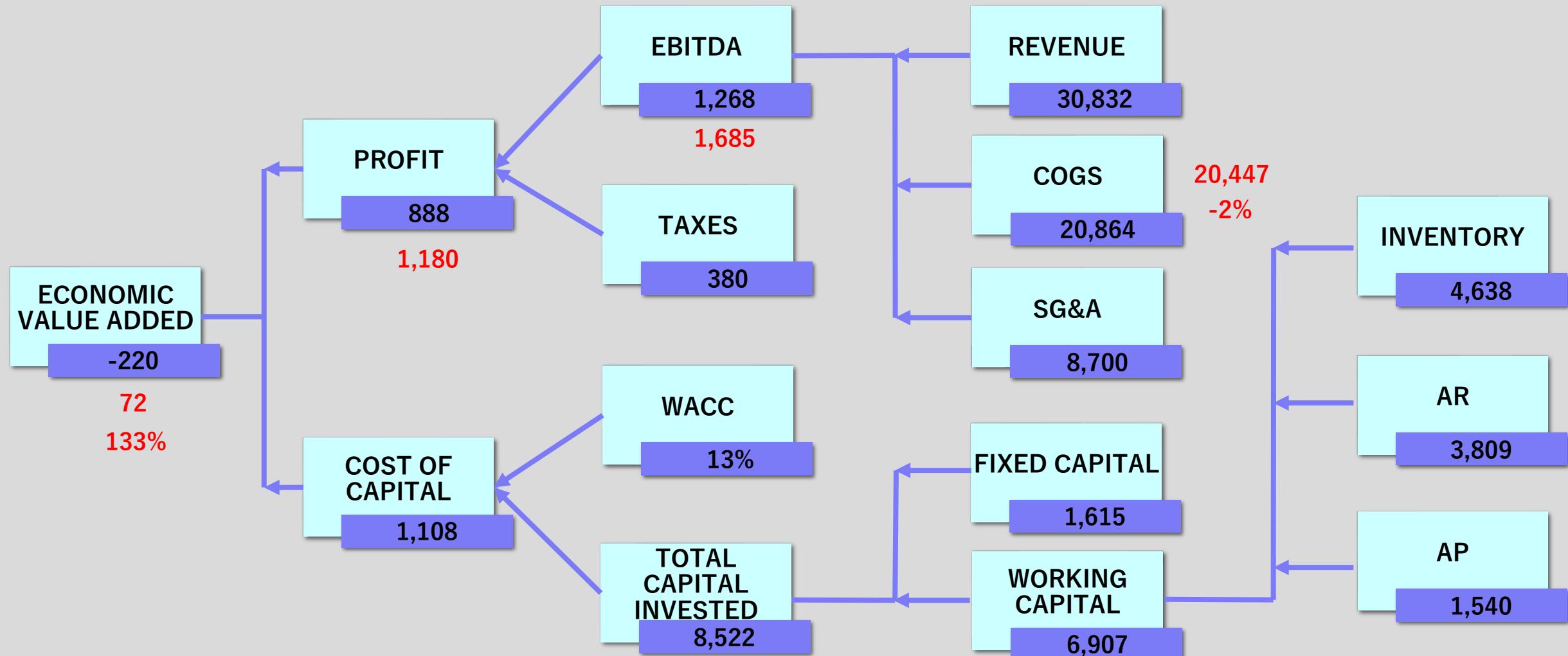
The EVA Model



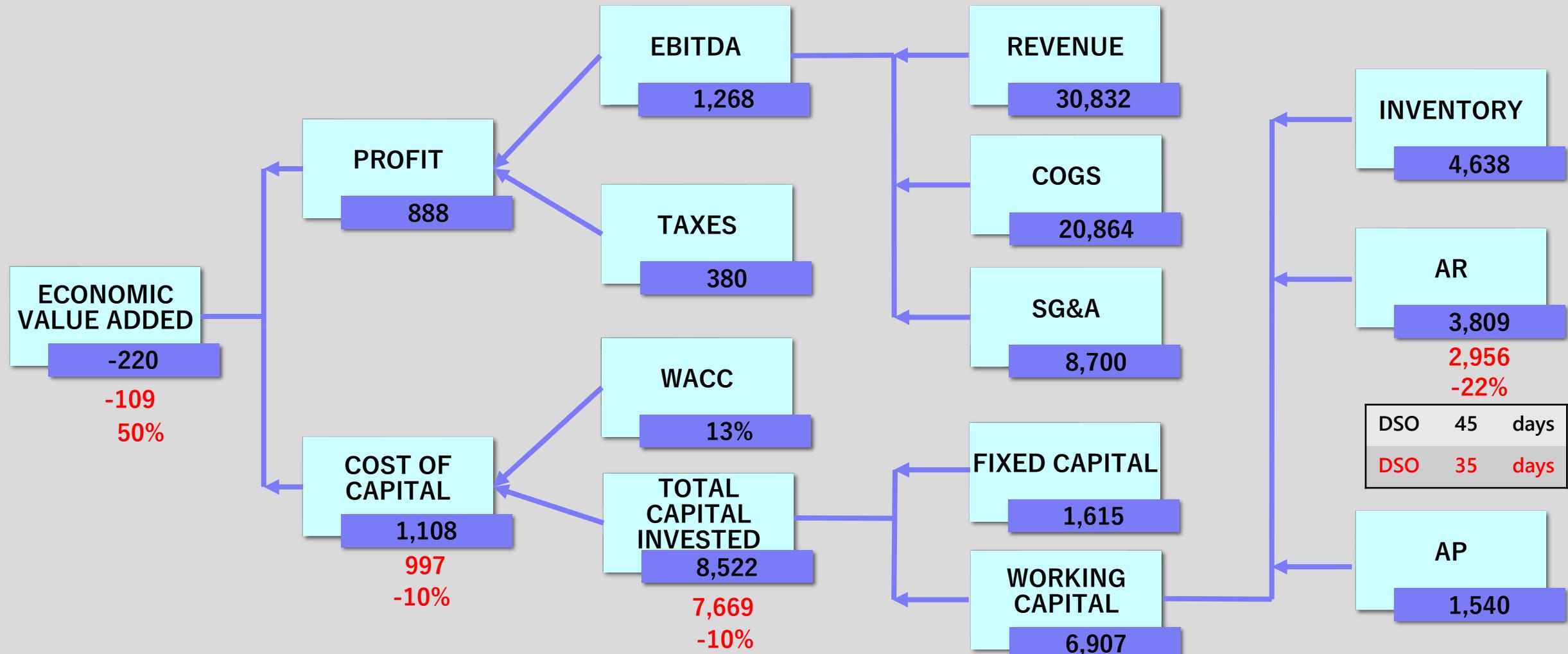
The EVA Model



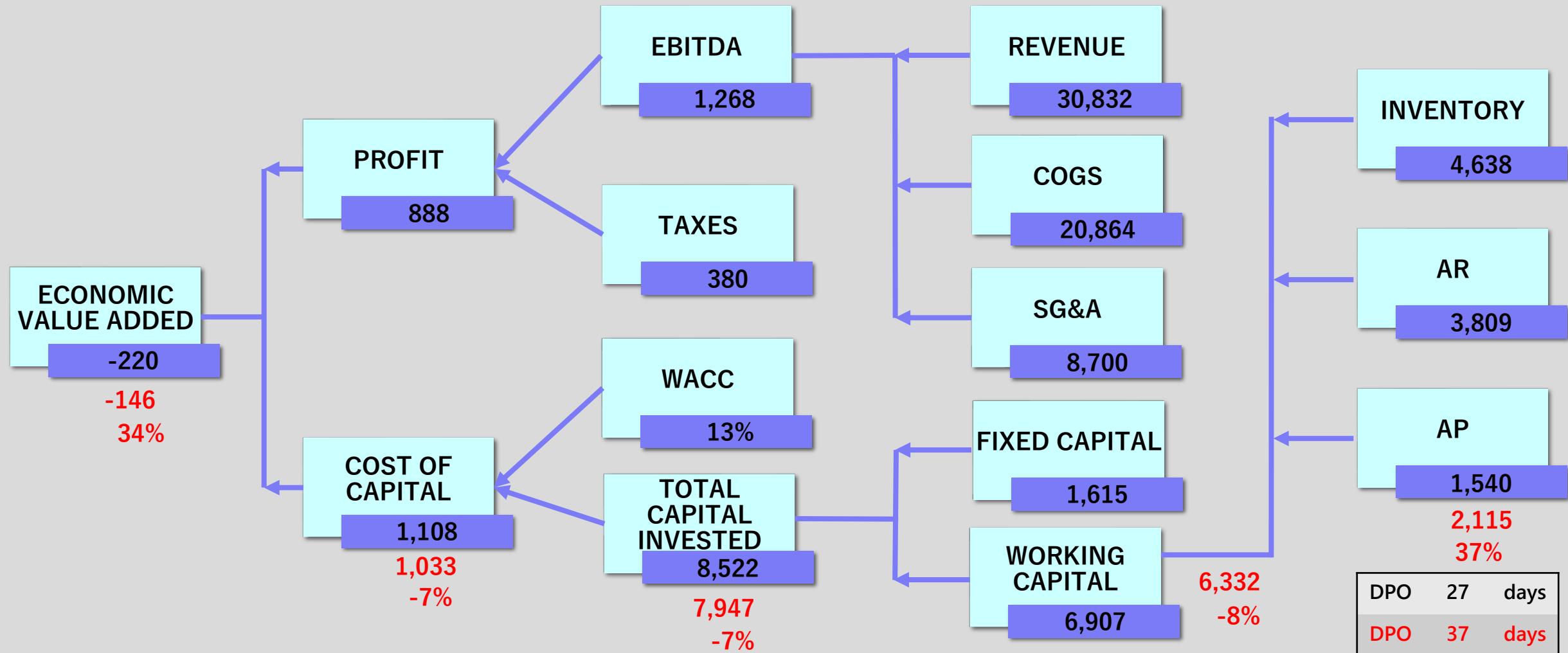
The EVA Model



The EVA Model



The EVA Model



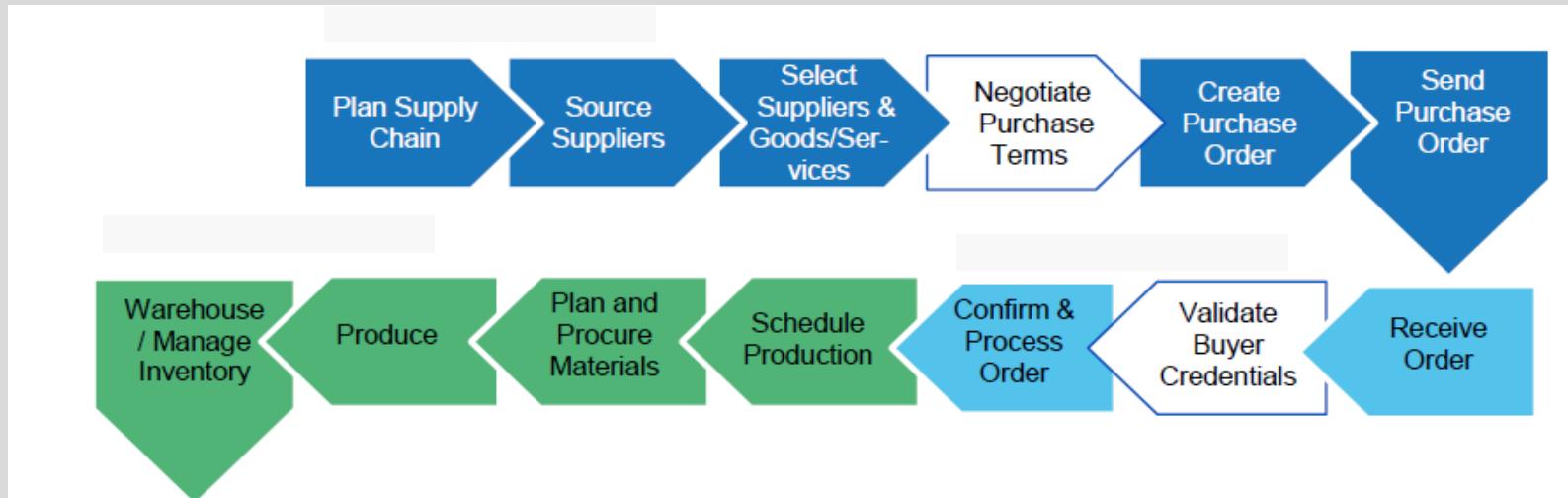
How SCM impacts working capital

SUPPLY CHAIN MANAGEMENT VALUE CREATION

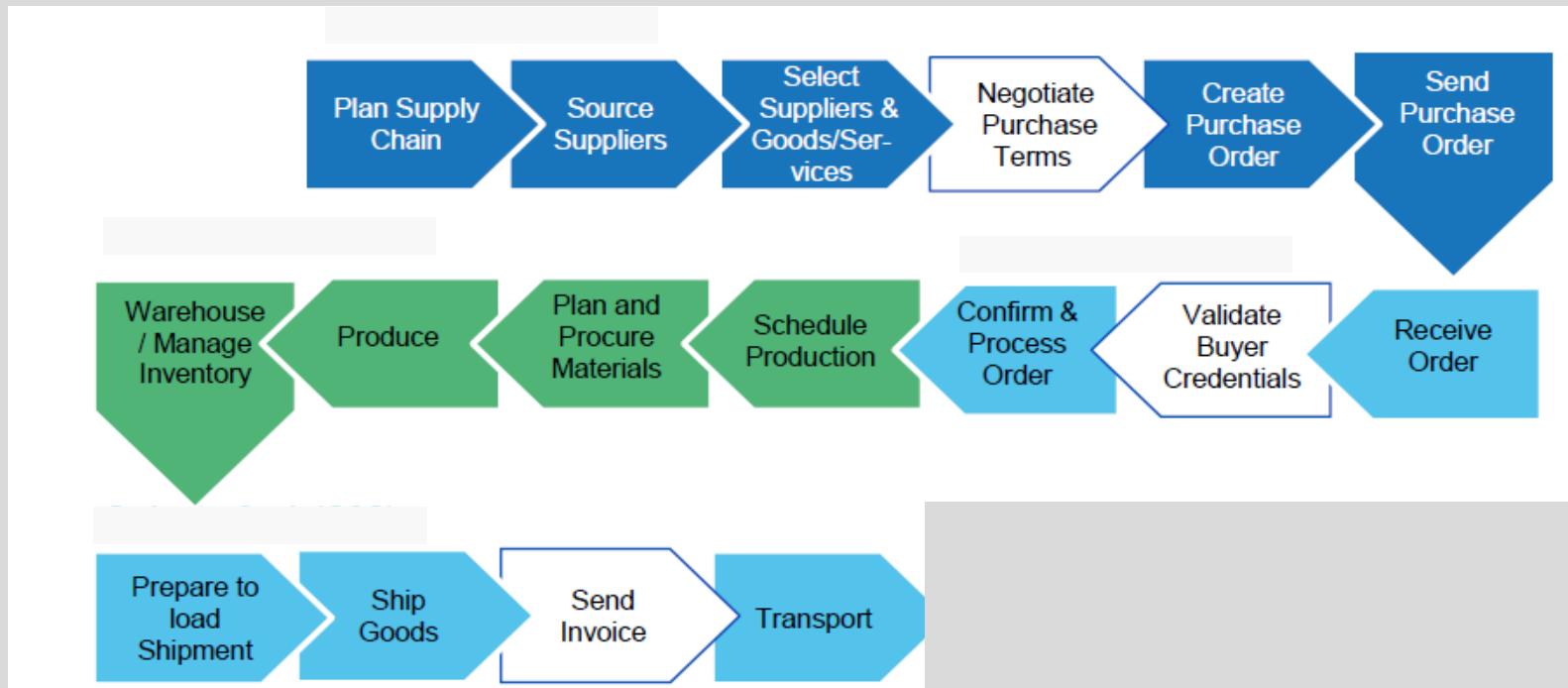
SCM processes illustrated



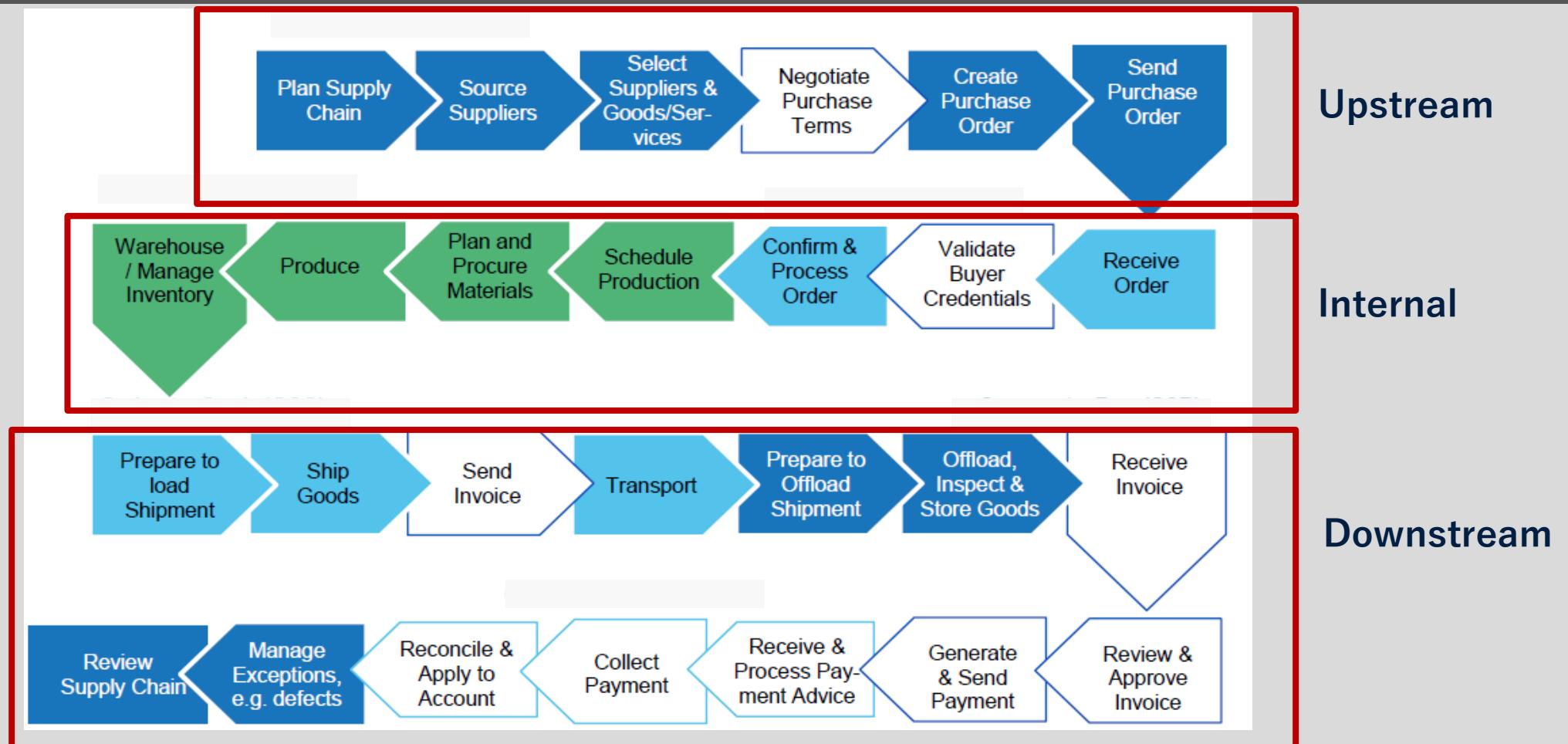
SCM processes illustrated



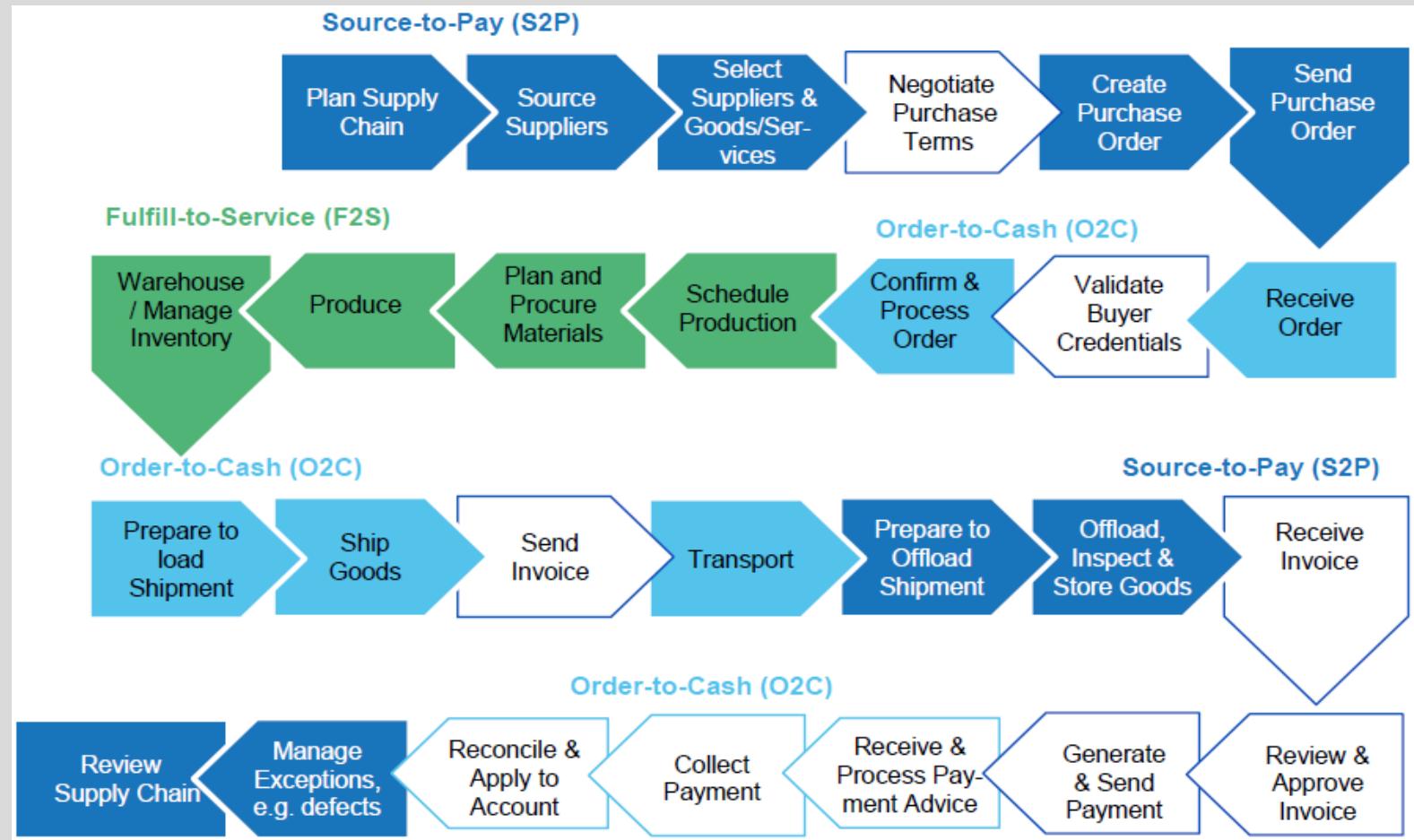
SCM processes illustrated



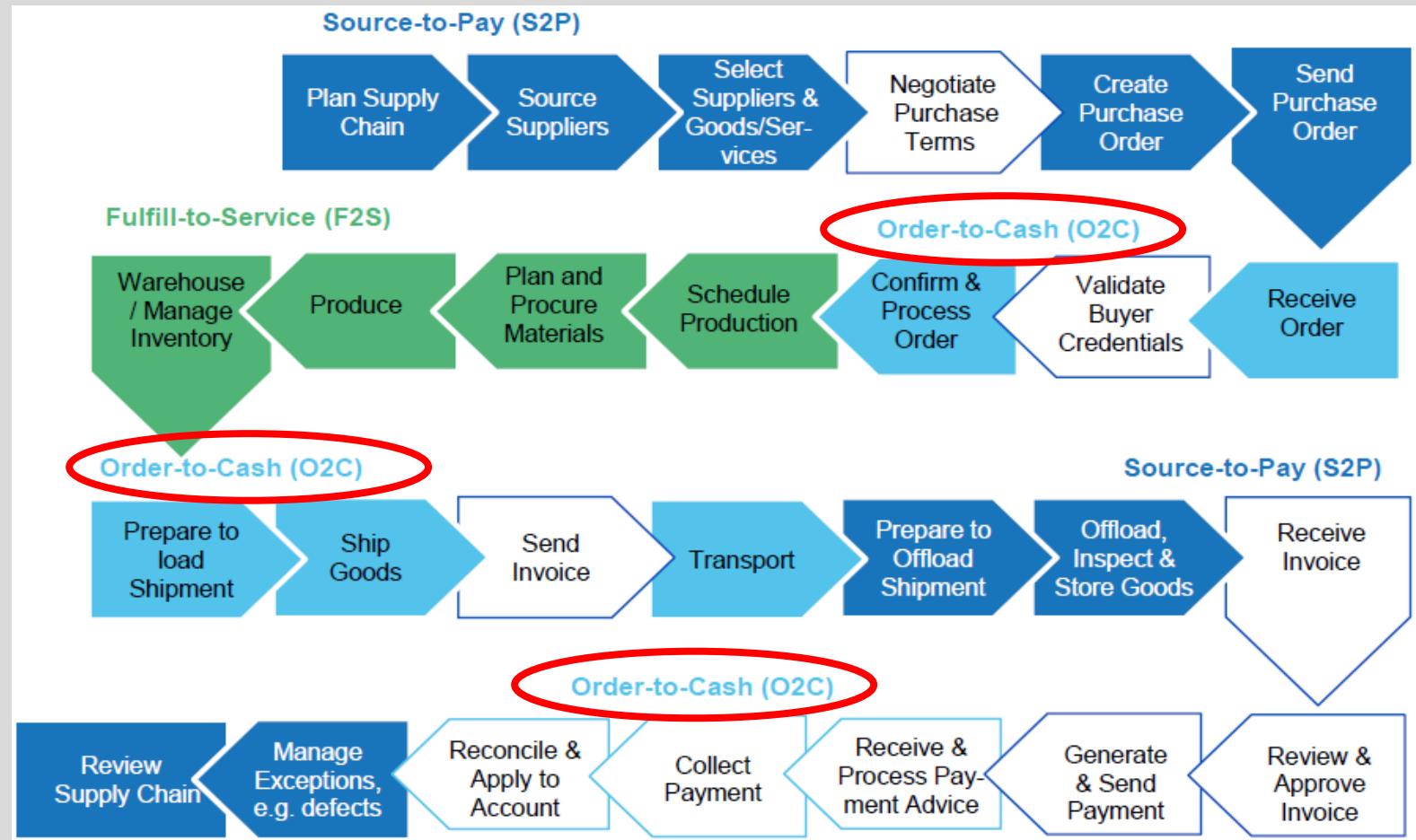
SCM processes illustrated



SCM processes illustrated



SCM processes illustrated

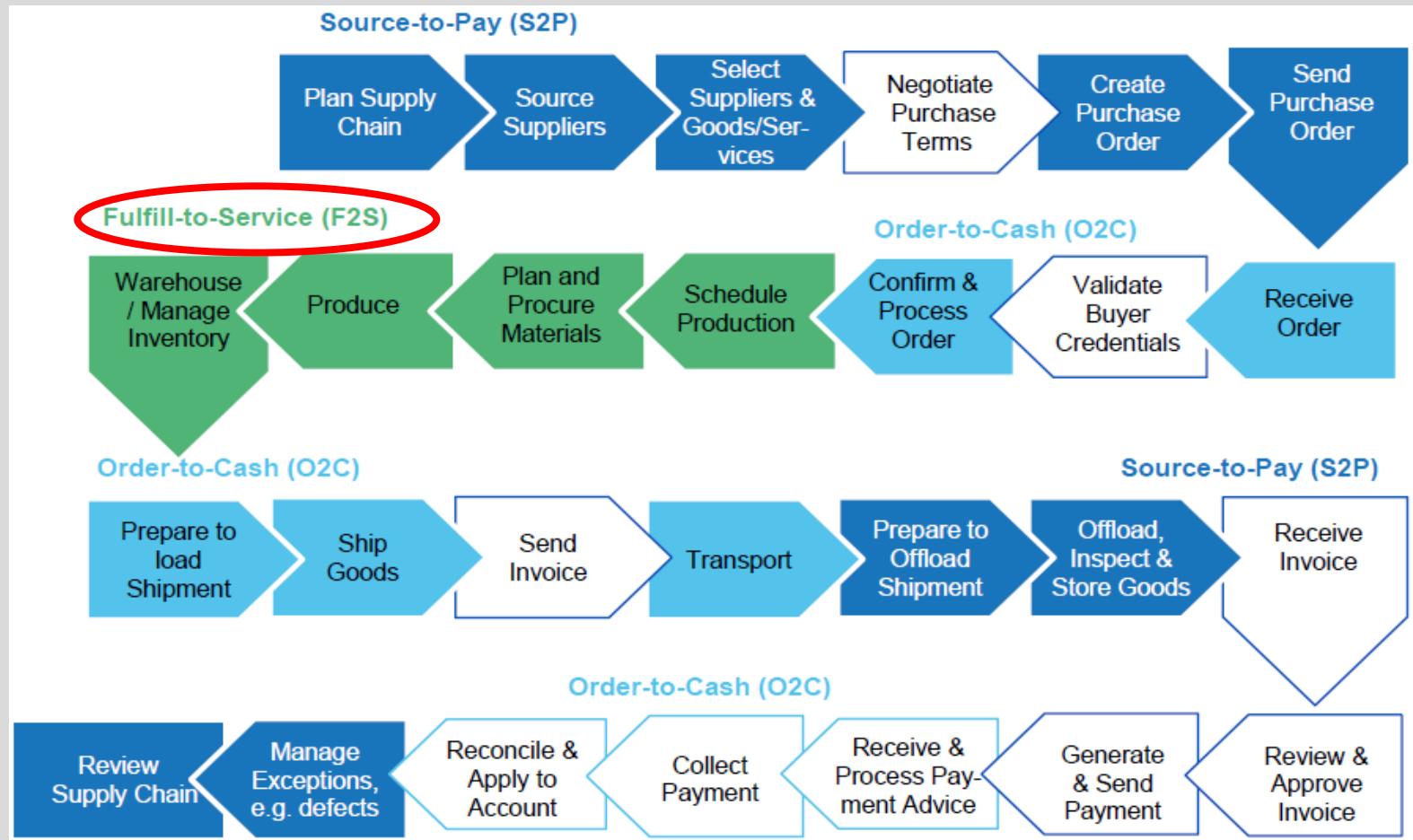


Working Capital =

$$\text{Accounts Receivable} + \text{Inventory} - \text{Accounts Payable}$$

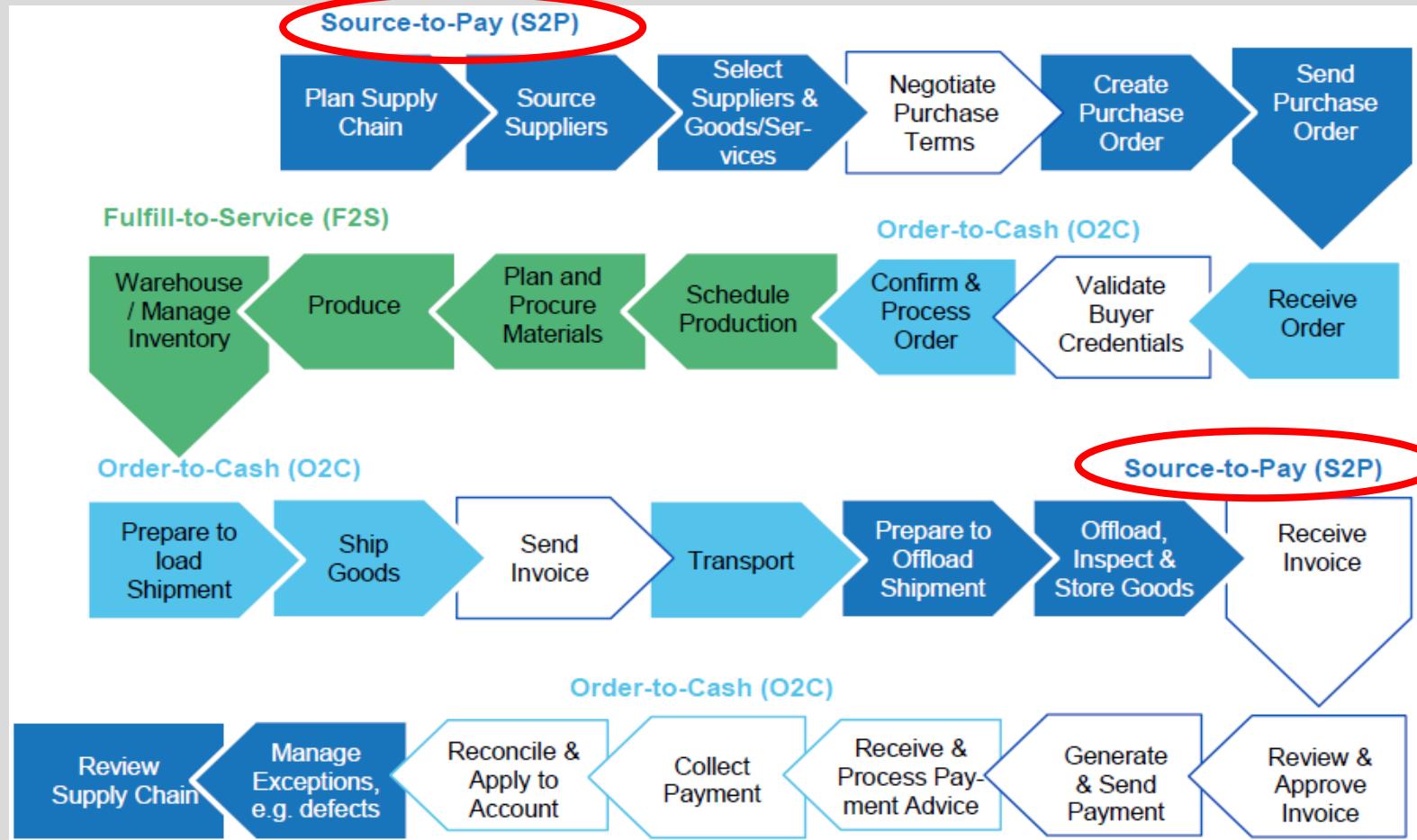


SCM processes illustrated



Working Capital =
Accounts Receivable
+ Inventory
- Accounts Payable

SCM processes illustrated



Working Capital =
Accounts Receivable
+ Inventory
- Accounts Payable

MODULE 2 - SUMMARY

Supply Chain Management Value Creation

Supply Chain Management

Value Creation

- Understand the business processes of a supply chain.
- Learn the roles and responsibilities of a supply chain manager.
- Evaluate how supply chain management creates corporate value.
- You will be ready to understand which parts of a supply chain benefit from enterprise blockchain applications.

MODULE 3

Blockchain in The Supply Chain - Use Cases



101 Blockchains

Enterprise Blockchain in The Supply Chain- Use Cases

- Understand the dynamics of SCM flows.
- Learn where enterprise blockchain is currently applied.
- Evaluate the parts of your supply chain that would benefit the most from enterprise blockchain.

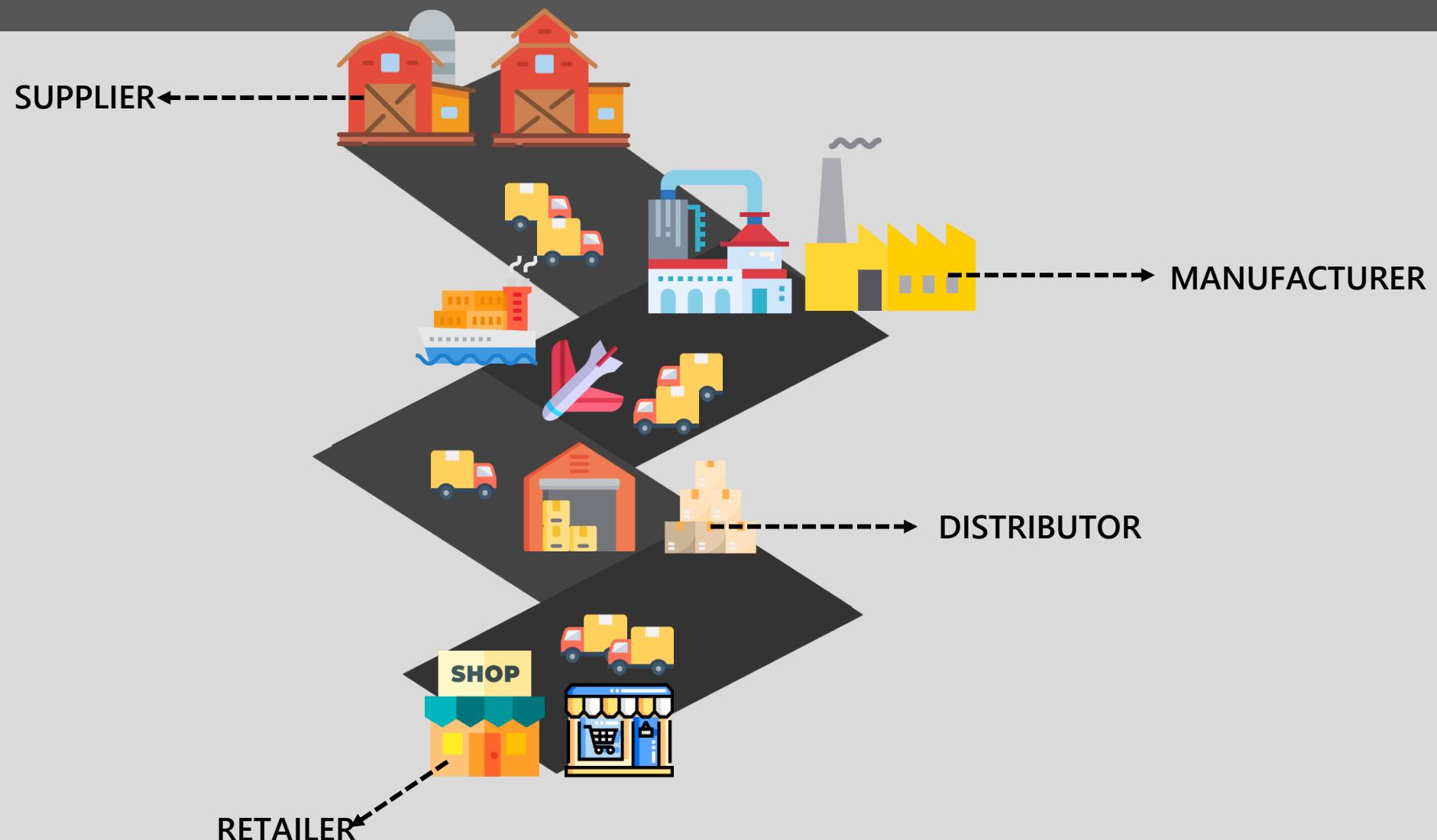
Enterprise Blockchain in The Supply Chain- Use Cases

- **Lesson 1: Supply chain flows and the impact of blockchain**
- **Lesson 2: Selected industry use cases of enterprise blockchains applications**

Supply chain flows and the impact of blockchain

ENTERPRISE BLOCKCHAIN IN THE SUPPLY CHAIN- USE CASES

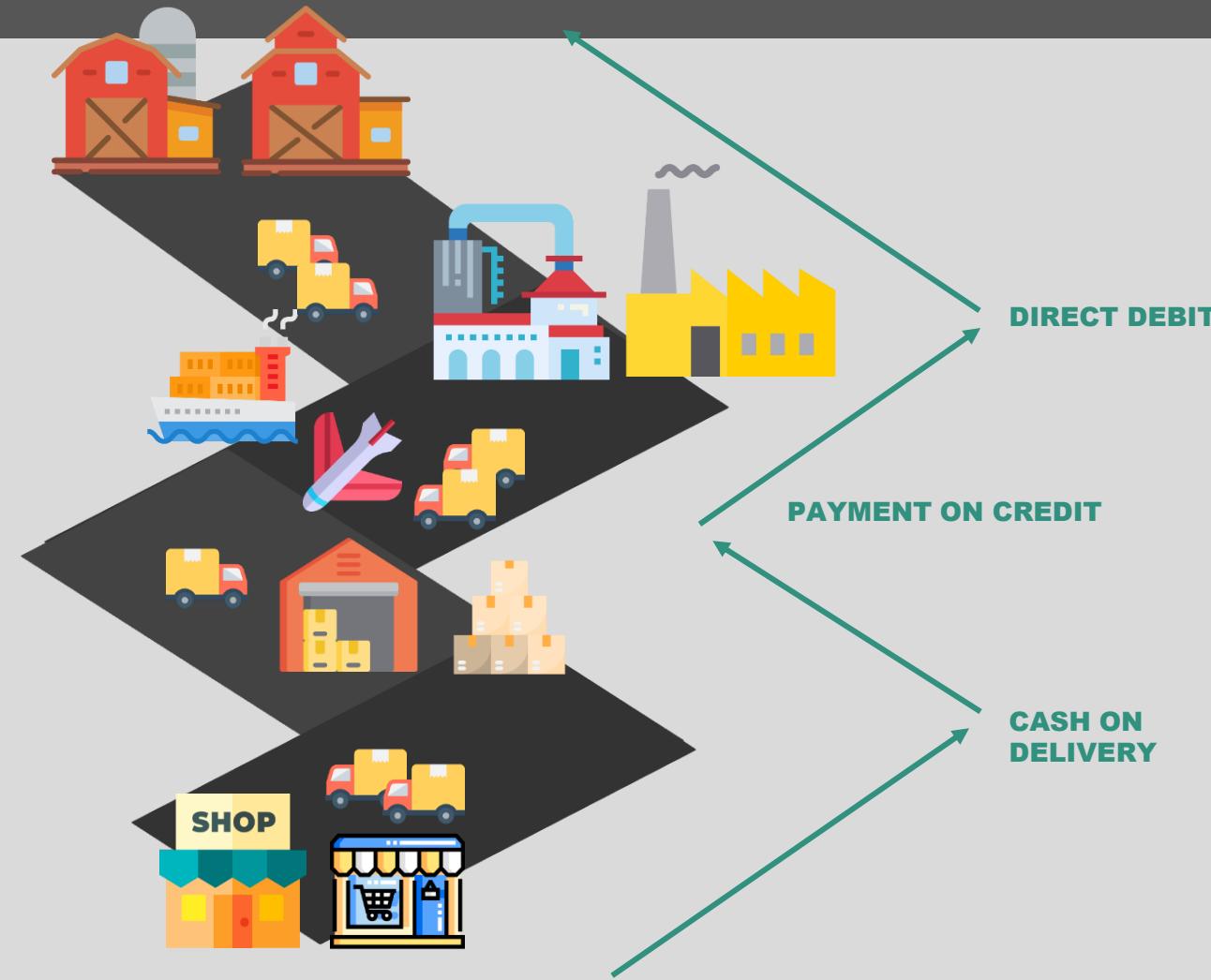
The Physical, The Financial, and The Information Supply Chains



The Physical, The Financial, and The Information Supply Chains



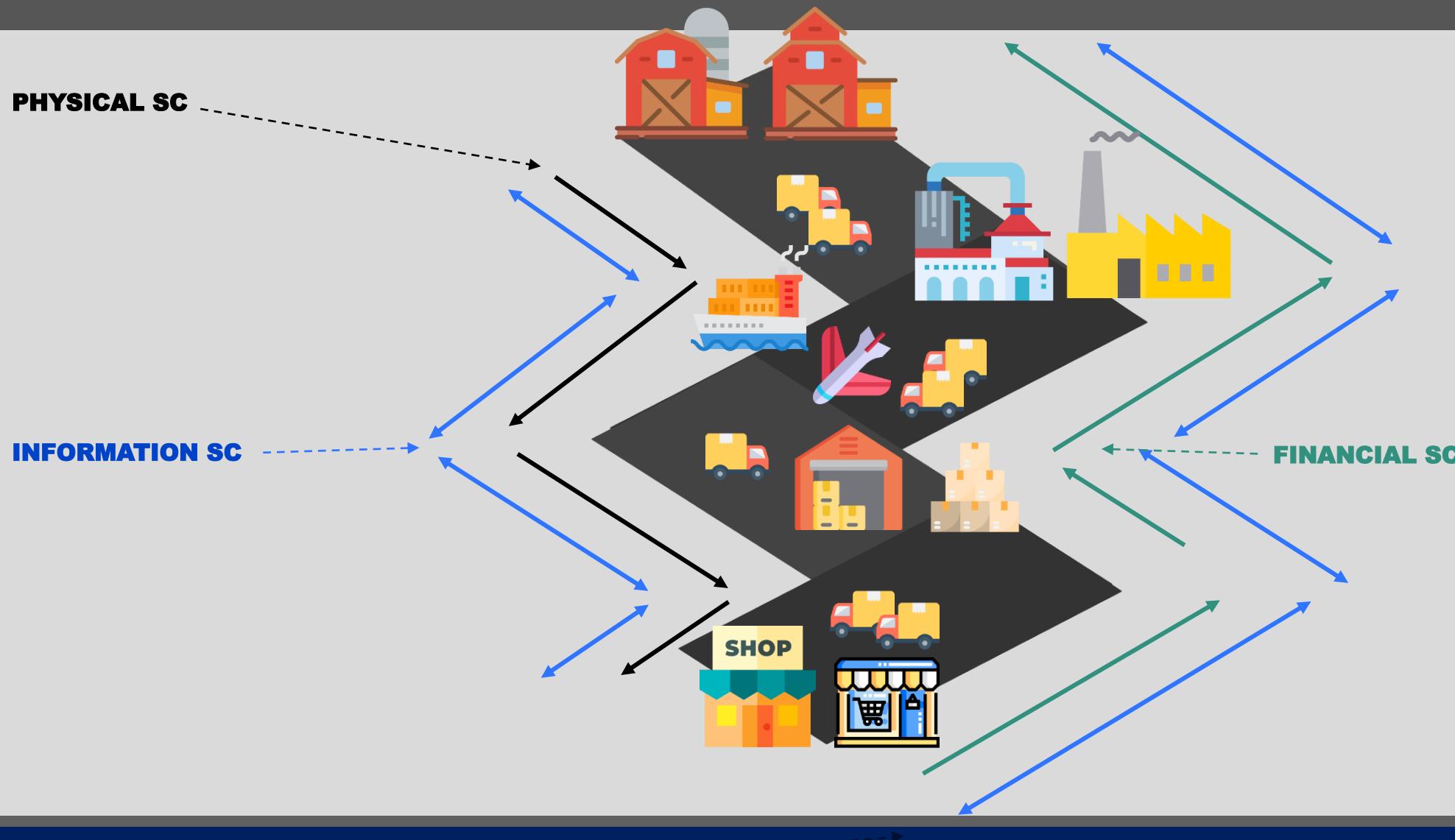
The Physical, The Financial, and The Information Supply Chains



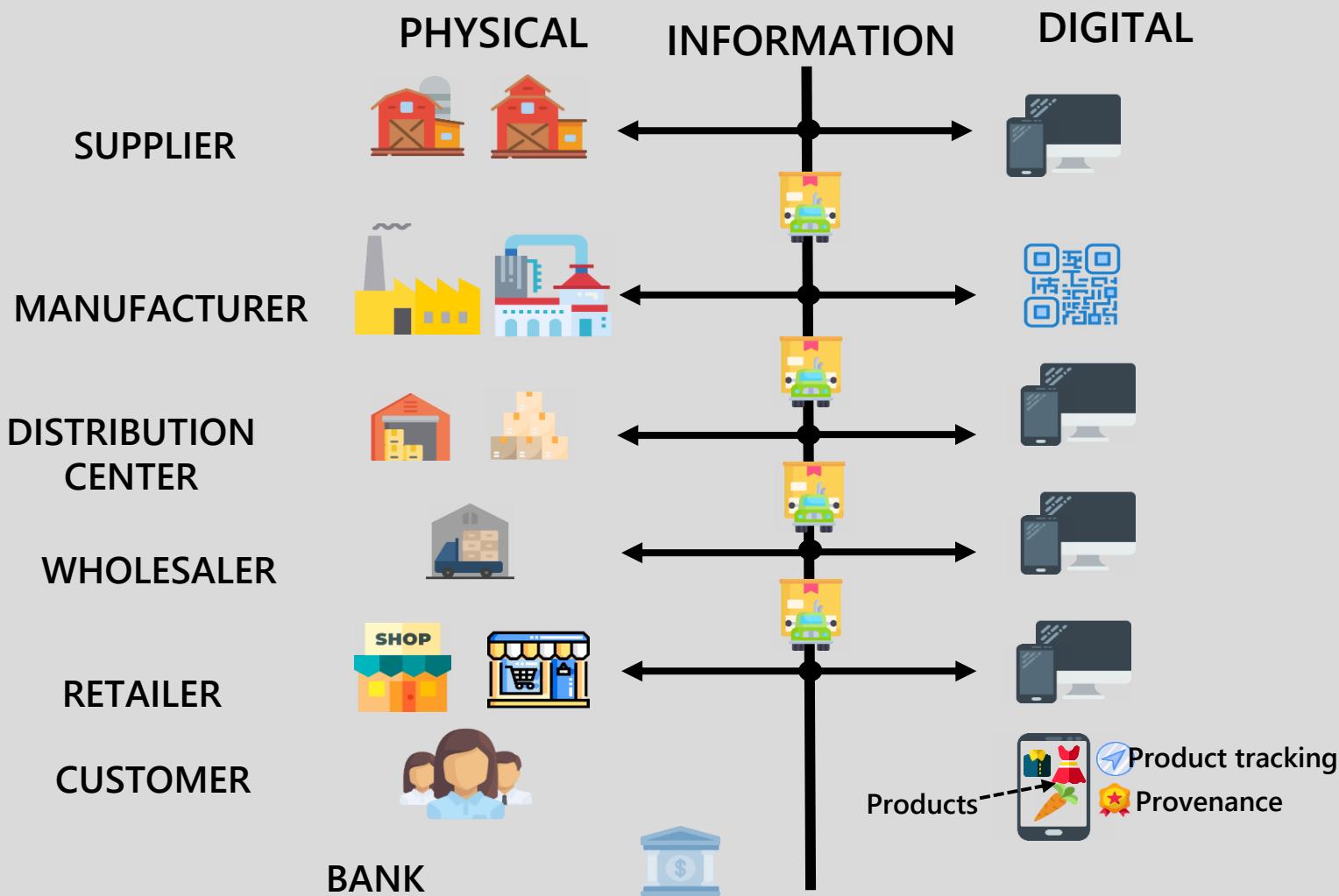
The Physical, The Financial, and The Information Supply Chains



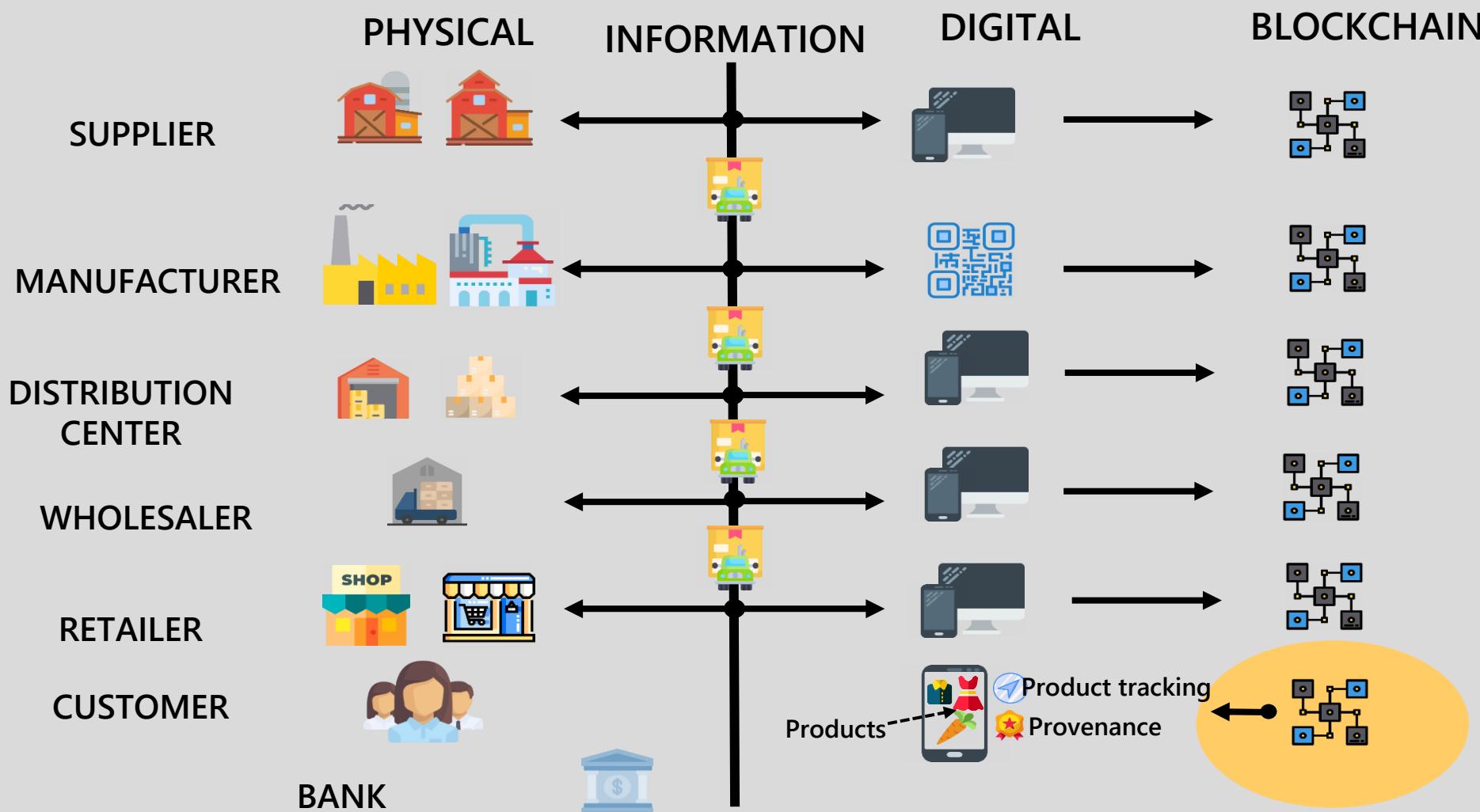
The Physical, The Financial, and The Information Supply Chains



Physical flows and the Digital Twins



Physical flows and the Digital Twins



THE BENEFITS OF DECENTRALIZING SUPPLY CHAIN MANAGEMENT



TRANSPARENT LEDGER SYSTEM

Decentralized supply chain offers to trace every product movement using the transparent ledger system.



TRACKING IN REAL-TIME

Blockchain supply chain supports real-time tracking of any material within the system along with their current condition for quality control.



FASTER TRANSACTIONS

The supply chain blockchain platform is capable of transacting thousands of transactions per second, saving a lot of time.



TRUSTLESS CHAIN

The smart contract integration will create a trustless medium among manufacturers and vendors.



PRODUCT CERTIFICATION

Everything will get certified on the blockchain, promoting a platform without human error and fraudulent activities.



GREATER SECURITY

Immutability of the blockchain for supply chain network ensures greater security and also improves accuracy.



LOWER CARBON FOOTPRINT

It will decrease the need for returns, thus prompting a reduction in carbon footprint.



REDUCED COSTS

Gets rid of the middleman, offer greater accuracy, no counterfeit products reduces the overall costs.



Selected industry use cases of enterprise blockchains applications

ENTERPRISE BLOCKCHAIN IN THE SUPPLY CHAIN- USE CASES

Tools to archive documents in blockchain



Tools to archive documents in blockchain

- Rely on a single source of truth that validates the qualification claimed by the supplier.
- Certification agencies release and time-stamp credentials that will remain irrevocable and immutable until the next audit.
- Negotiated contract encrypted, signed, and time-stamped to become irrevocable.
- Authorized auditors may check transactions that trigger the execution of the contract.
- Compare vendor quotes: original information from suppliers remains irrevocable and immutable.

Tools to archive documents in blockchain

- Avoid future complaints from rejected suppliers.
- Internal audits to prove that short-listed, and then winning, vendors conform to the buying company's protocols and requisition criteria.
- Purchase order is time-stamped to become a valid (and legally binding) document.
- Render irrevocable the recorded delivery data (e.g., date and time of arrival; condition of goods; correspondence with purchase order).
- Control existence and verify completeness of the accompanying shipping documents.
- Mitigate disputes from unmatched deliveries: retrieve data collected throughout the order-receipt processes, time-stamped, recorded, activated, and supported with documents all living in blockchain.

Blockchain in the Supply Chain: Food

The screenshot shows a web browser displaying a blockchain-based food supply chain platform. The URL in the address bar is blockchain.guerra.it/index.php?prodotto=PCS05&lotto=17/00002.

The page content includes:

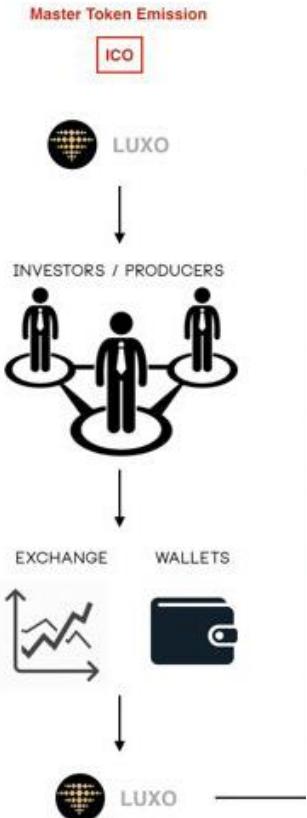
- GUERRA SPA** logo and information: Sede Legale e Operativa: Via di Valle Cala, 39 - 00040 POMEZIA (RM). Bureau Veritas Italia spa certifica che il sistema di gestione dell'organizzazione sopra indicata è stato valutato e giudicato conforme ai requisiti della norma di sistema di gestione seguente.
- ISO 9001:2008** certification badge.
- ite** logo.
- IFS FOOD CERTIFICATE** section: We certify that the Organization: GUERRA S.p.A.
- RSPO** (Roundtable on Sustainable Palm Oil) logo.
- asi** (International Services International) logo.
- CERTIFICATE OF REGISTRATION** section: This is to certify that: Guerra Spa, Via di Valle Cala, 39 00040 Pomezia (RM).
- A large image of a petri dish containing a bacterial culture, labeled "BacillusCereus".
- Links to various documents: PCS05_170002-ANALISI.pdf, PCS05_170002-BacillusCereus.jpg, PCS05_170002-CBT.jpg, PCS05_170002-enterobacteriaceae.jpg, PCS05_170002-HACCP.pdf, PCS05_170002-StaphylococcusAureus.jpg.
- TopHash Documenti Prodotto: ba41bc07e41eb8aede4a75e78fb142a26b5a99c462a6c99058245e59ce64870
- MA088 AMIDO VCAR *** S - AGU504J document: MA088-AGU504J-Viscosit pH DSC umidit.pdf
- TopHash Documenti MA088 - AGU504J: 54b7abfecf03f44476a561e46ce503b7977e71358f47ac0c033429f626c84255

Source: <http://blockchain.guerra.it/index.php?prodotto=PCS05&lotto=17/00002>

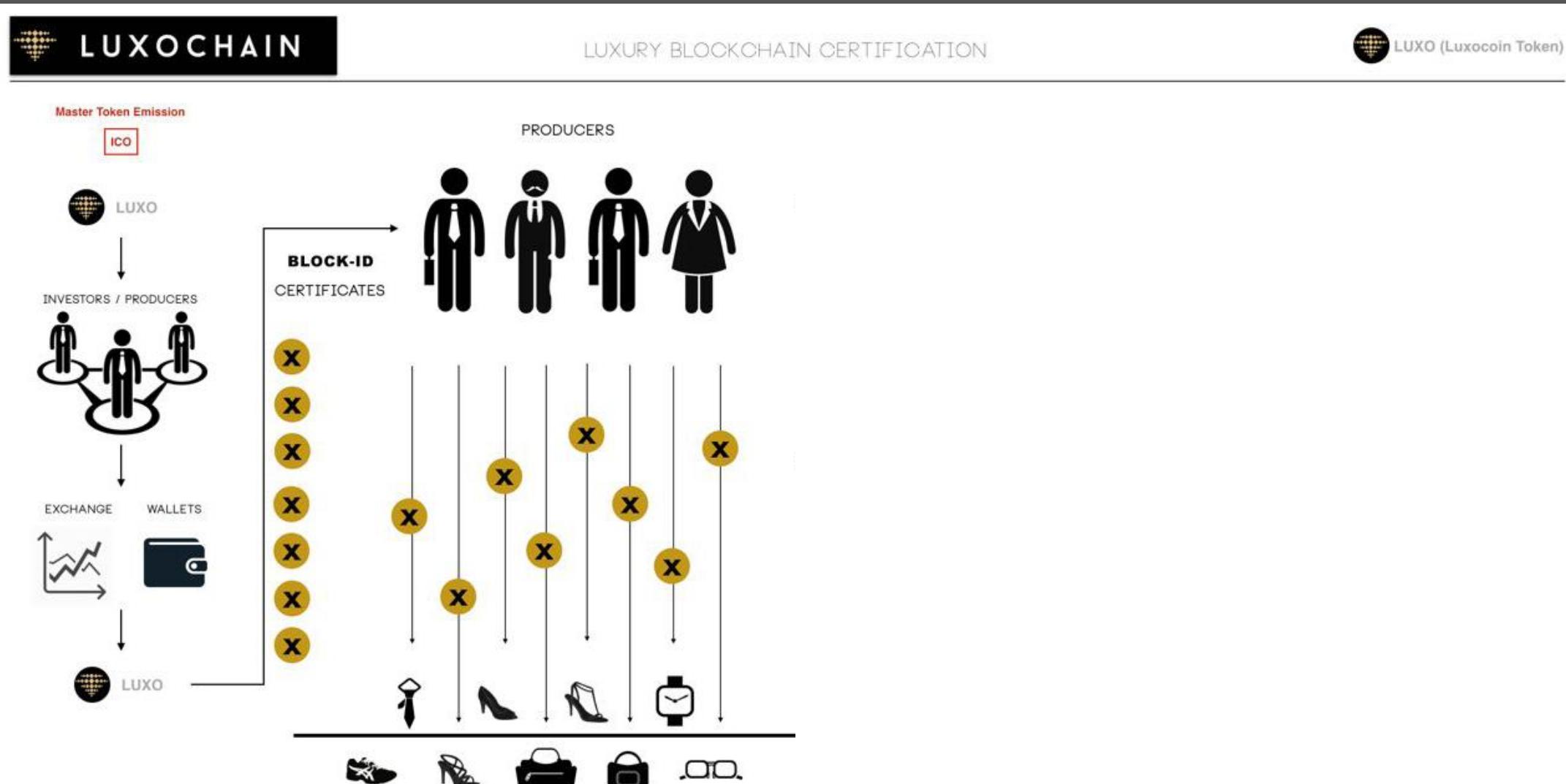
Blockchain Tokens



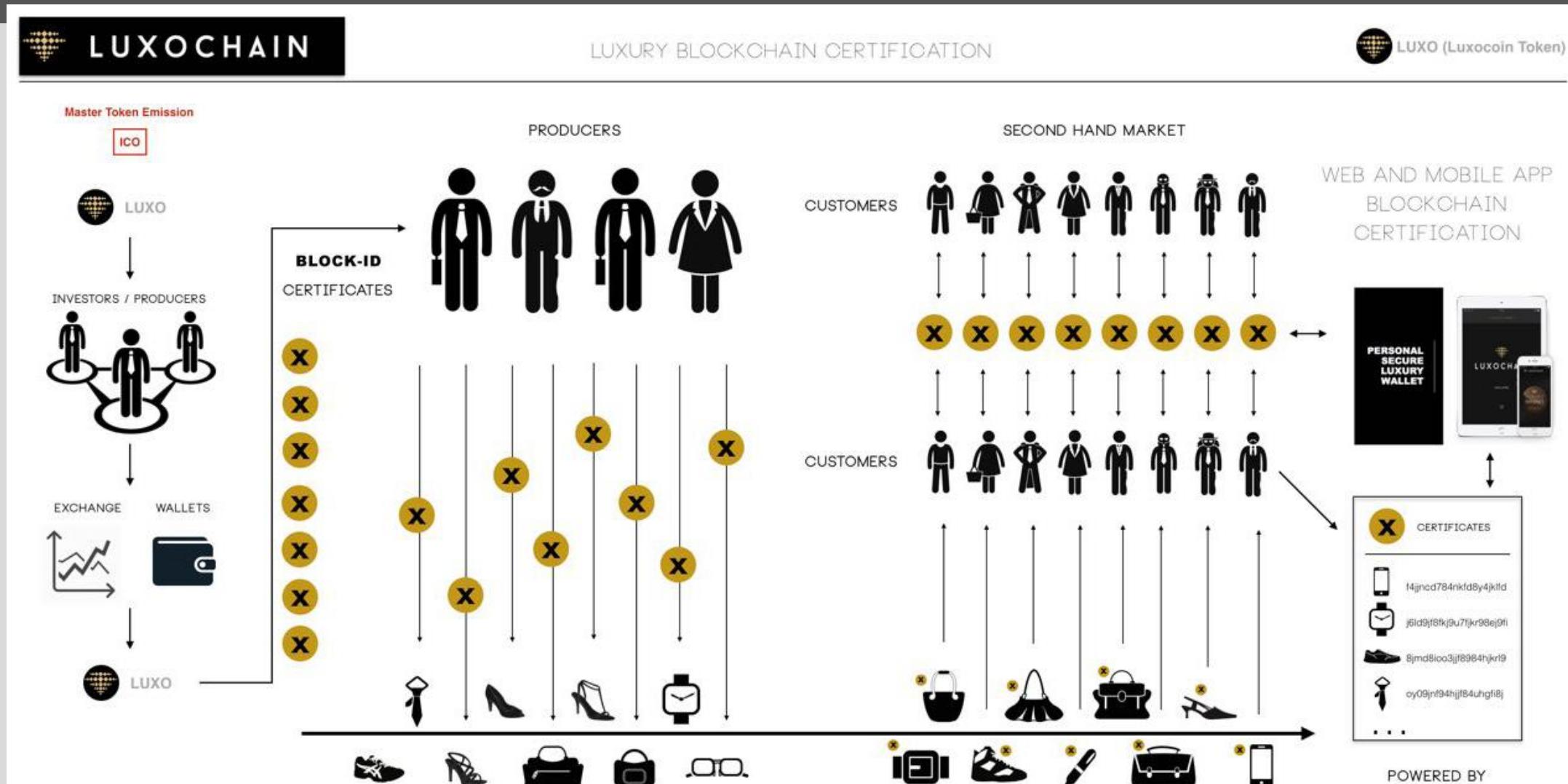
LUXURY BLOCKCHAIN CERTIFICATION



Blockchain Tokens



Blockchain Tokens

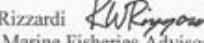


Sustainable Tuna Fishing in South-East Asia

 UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
MARINE FISHERIES ADVISORY COMMITTEE
Silver Spring, MD 20910

DEC 20 2013

MEMORANDUM FOR: Samuel D. Rauch III
Deputy Assistant Administrator for Regulatory Programs,
performing the functions and duties of the
Assistant Administrator for Fisheries

FROM: Keith Rizzardi 
Chair, Marine Fisheries Advisory Committee

SUBJECT: Recommendations on Sustainable Seafood Certification

This memo transmits a report by the Marine Fisheries Advisory Committee on sustainable seafood certification by the NOAA Fisheries Service. This was developed in response to a request received from you in 2012. MAFAC organized a working group comprised of MAFAC members and NOAA Fisheries staff to develop a framework for a NOAA certification mark or other acknowledgment of the sustainability and origin of domestic fishery products meeting U.S. national standards and regulations. The working group focused on these goals:

1. Identify a US seafood certification framework including program costs, options and a recommendation for how to pay for it.
2. Identify certification criteria/standards.

MAFAC recommends a simple framework that offers value to the seafood industry consistent with the agency's legal authorities and minimizes conflicts with existing third-party ecolabels. The envisioned approach would initially focus on wild-caught seafood from federally managed waters, and phase in a process for seafood derived from aquaculture products.

"Sustainable and socially responsible seafood is impossible to achieve without establishing strong traceability mechanisms." Greenpeace



Source: <https://www.provenance.org/tracking-tuna-on-the-blockchain>

PROVENANCE

Sustainable Tuna Fishing in South-East Asia



Source: <https://www.provenance.org/tracking-tuna-on-the-blockchain>

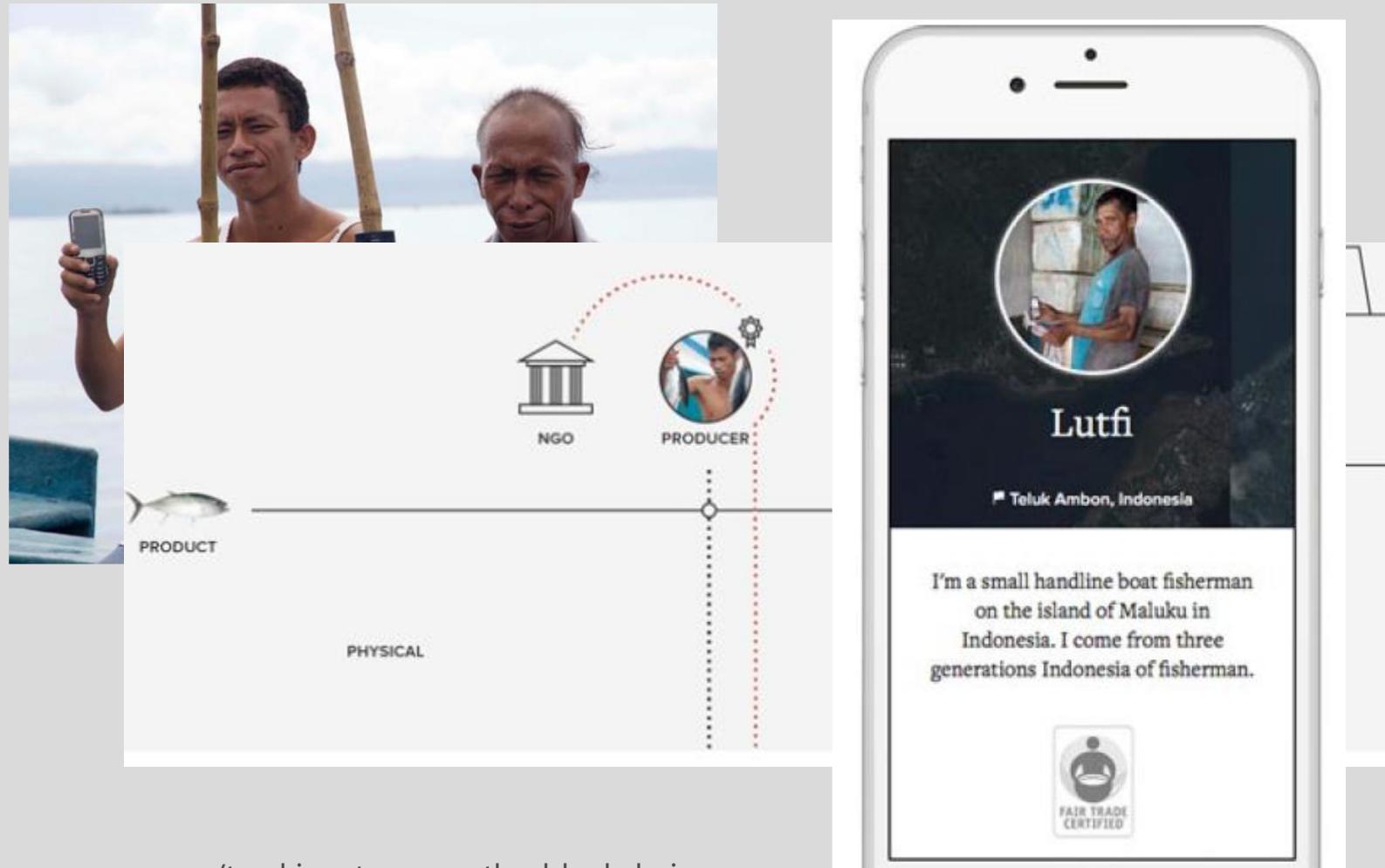
PROVENANCE

Sustainable Tuna Fishing in South-East Asia



Source: <https://www.provenance.org/tracking-tuna-on-the-blockchain>

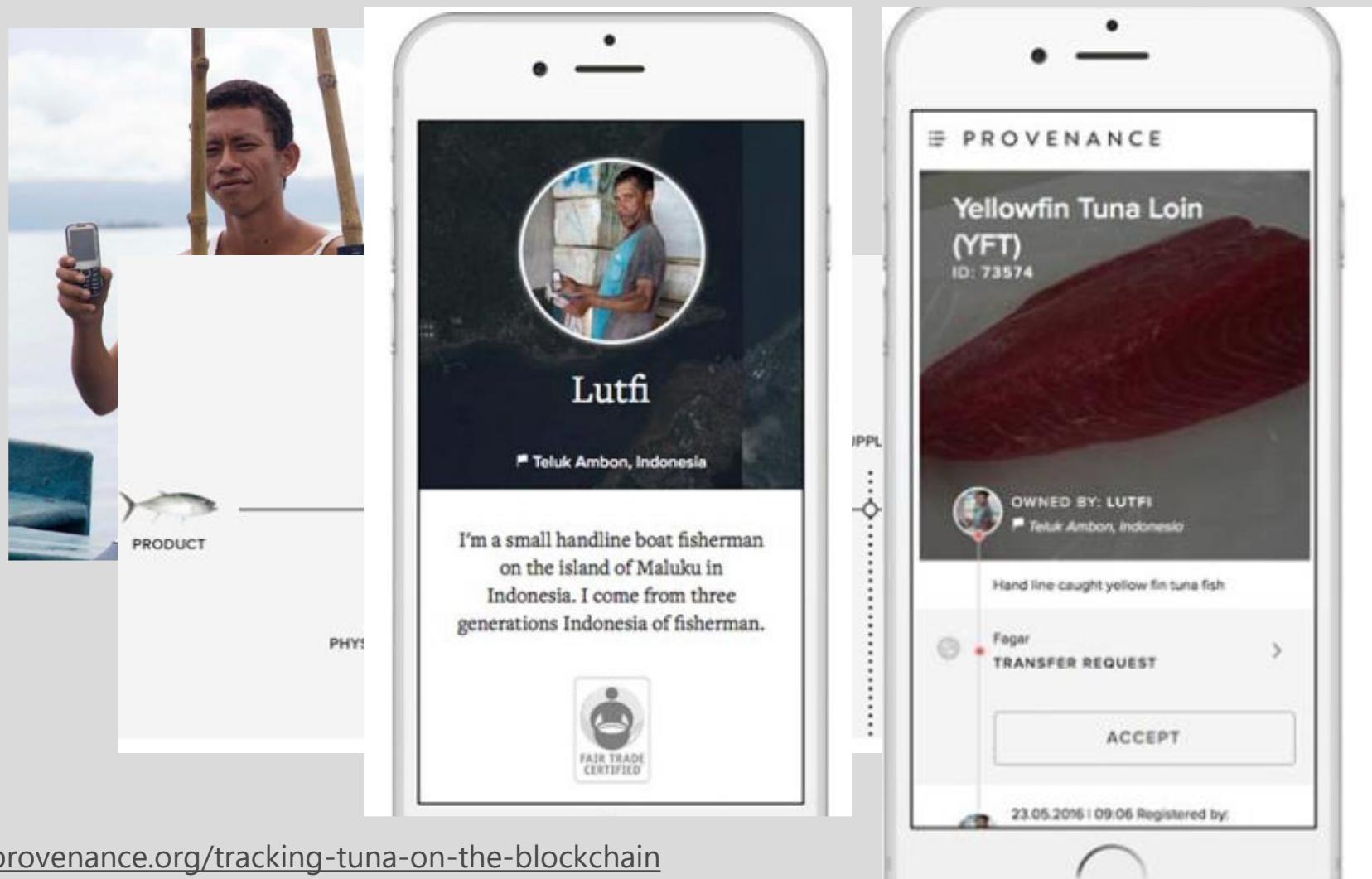
Sustainable Tuna Fishing in South-East Asia



Source: <https://www.provenance.org/tracking-tuna-on-the-blockchain>

PROVENANCE

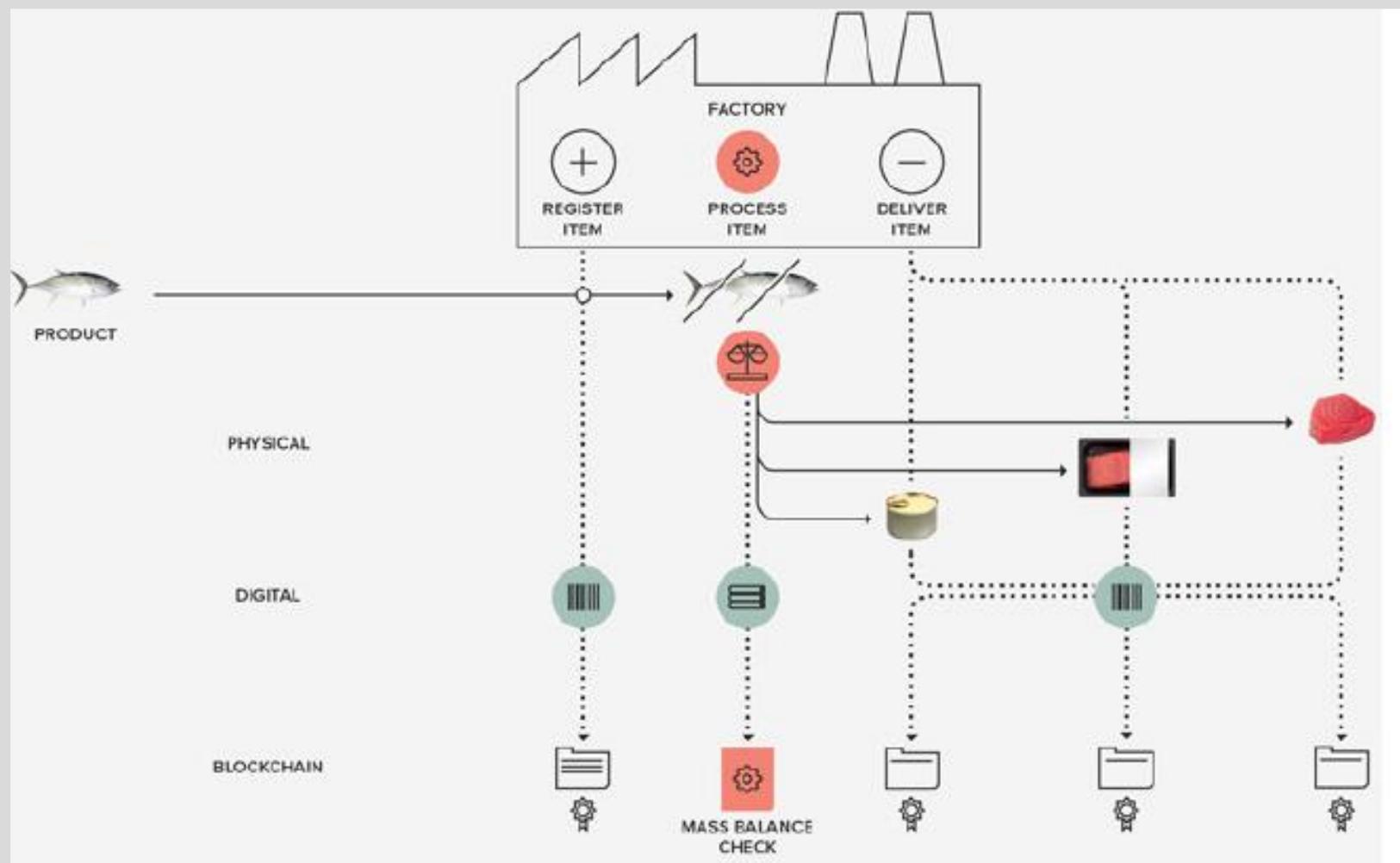
Sustainable Tuna Fishing in South-East Asia



Source: <https://www.provenance.org/tracking-tuna-on-the-blockchain>

PROVENANCE

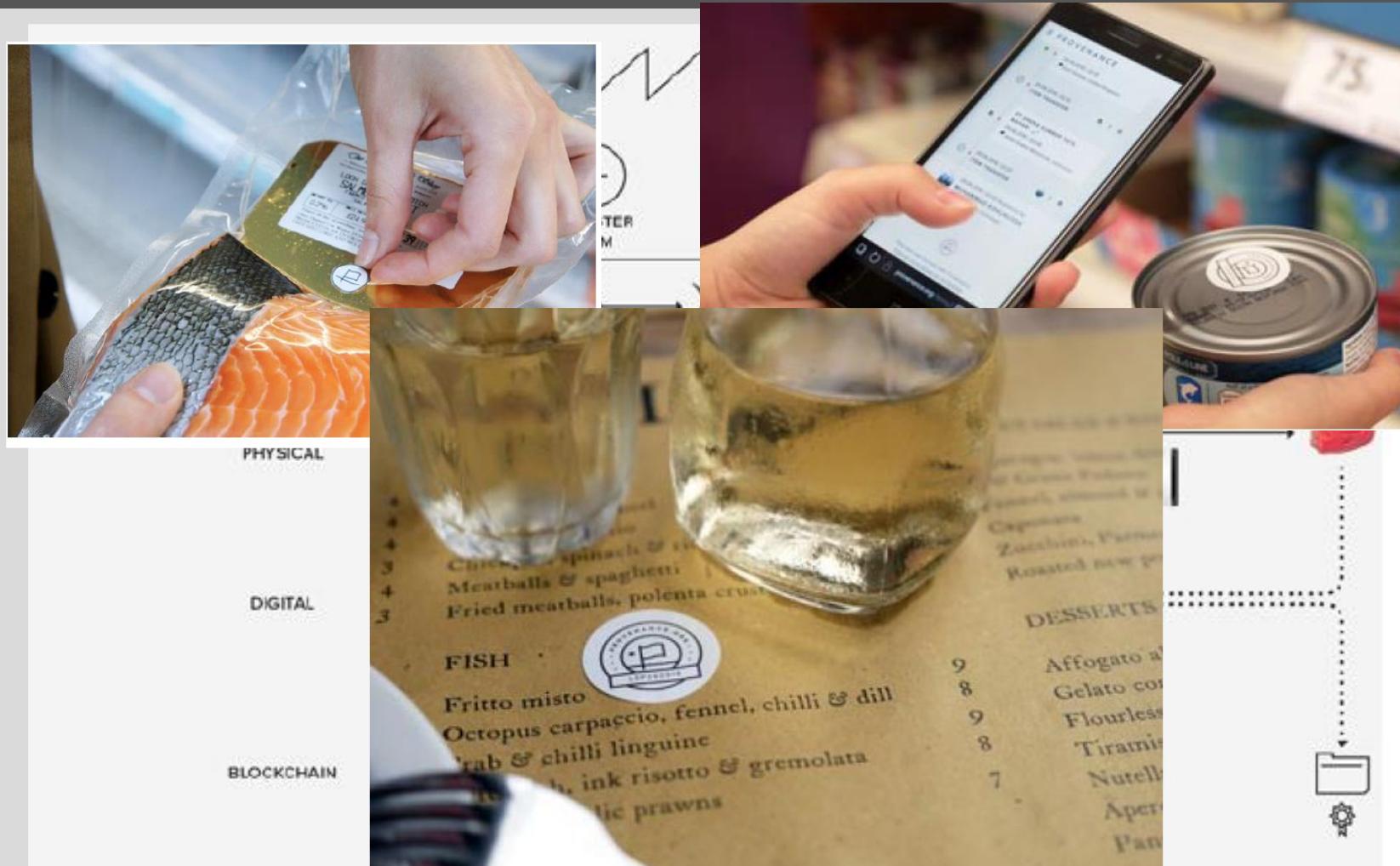
Sustainable Tuna Fishing in South-East Asia



Source: <https://www.provenance.org/tracking-tuna-on-the-blockchain>

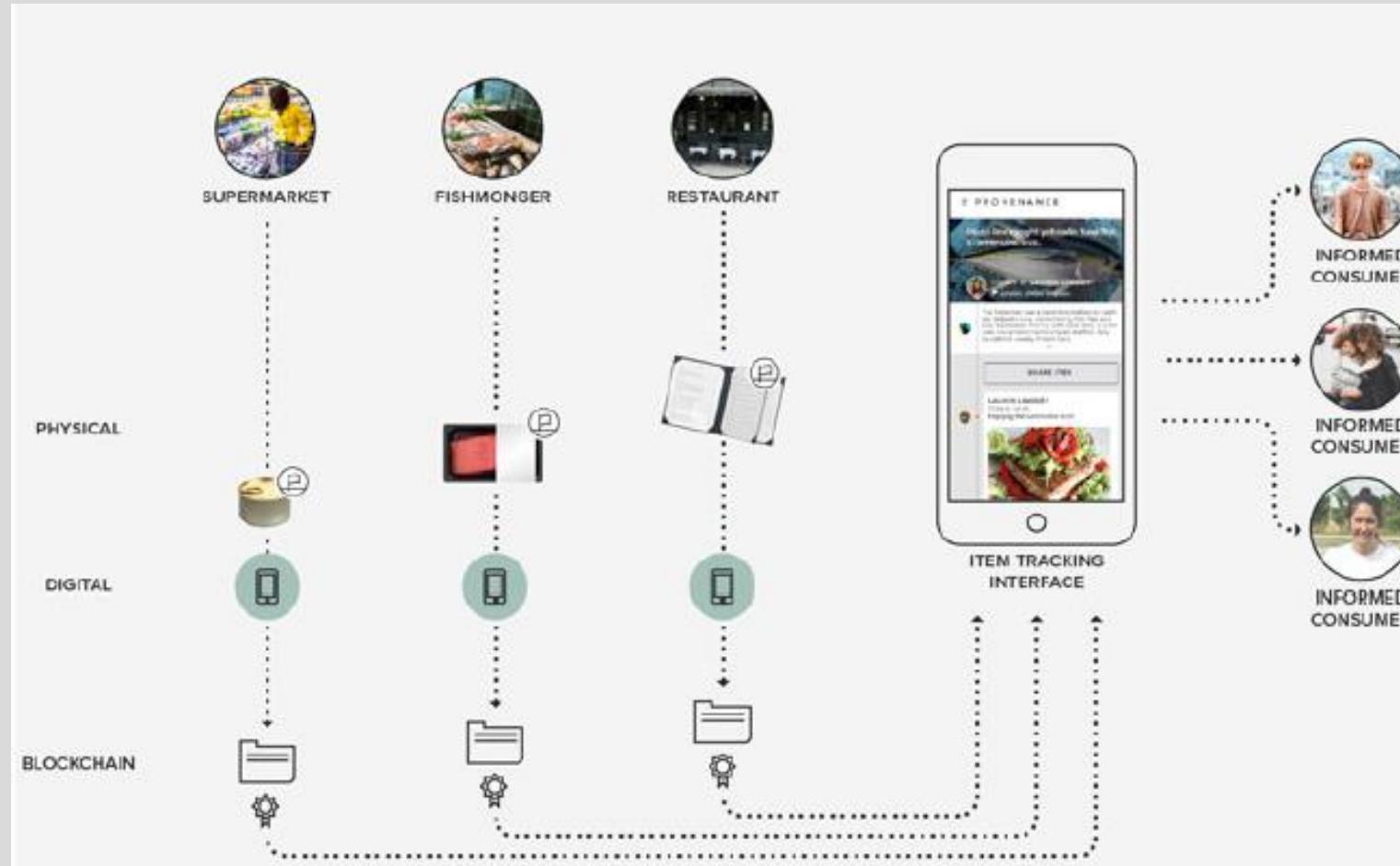
PROVENANCE

Sustainable Tuna Fishing in South-East Asia



Source: <https://www.provenance.org/tracking-tuna-on-the-blockchain>

Sustainable Tuna Fishing in South-East Asia



Source: <https://www.provenance.org/tracking-tuna-on-the-blockchain>

PROVENANCE

Blockchain in the Supply Chain: Buy/Sell



Blockchain in the Supply Chain: Buy/Sell (cont'd)

Heija: Pharmaceutical Procurement

- Permissioned blockchain platform based on Hyperledger Fabric.
- Blockchain-based business network among: Trader, Pharmaceutical retailer, Hospital, Bank.
- Track drugs; Encrypt trading records; Establish authenticity of transactions.
- Visibility of authentic transactions exchanged with SME retailers helps lower the credit risk profiled by financing institutions.
- Allow shortened payment period.
- Provide access to small and medium pharmaceutical retailers for funding and keep banks informed.

Blockchain in the Supply Chain: Engineering

Flight Maintenance

- Aircraft manufacturers; MRO service providers; logistics providers; lessors; civil aviation regulators.
- Components registered after they are manufactured together with all relevant data (e.g., serial codes).
- When component is installed in an airplane, this information can be saved again in another blockchain.
- Maintenance technicians review the exact number of flight hours and decide whether to replace or repair the part.
- Information of repaired component can then be saved in a separate blockchain.
- Combined use of blockchain, IoT data and cloud computing to create a shared digital ledger of flight events and scheduled aircraft maintenance items.
- OEMs can track the entire lifecycle of their products and how they perform over time once installed on an airplane.

Blockchain in the Supply Chain: Automotive

➤ Maintenance

- Renault's **Digital Car Maintenance Book**: log all car repair and maintenance history in a “car passport”.

➤ Ownership

- innogy and Volkswagen Financial Services' **CarPass**: history of inspections, maintenance, services, mileage, fuel consumption.

➤ Insurance

- Smart contracts or private keys to streamline filing of insurance claims, automatically deploy service technicians, or automate payout.

➤ Supply Chain

- Product inception, development, distribution, trade financing, retail and use, recycling/aftermarket.

Blockchain in the Supply Chain: Automotive (cont'd)

Mobility

- Driving/Testing Data Sharing: Individuals and companies can securely monetize and share all of their driving information, along with access to the data that others contributed to the marketplace.
- Car/Ride Share Transactions: Vehicle owners can empower themselves by monetizing their assets, such as selling cargo spaces and sharing rides.
- Usage-Based Insurance: Full transparency can reduce fraud and grant access to driving data for measuring safe driving habits in exchange for lower insurance premiums.
- Mobility Open Blockchain Initiative (MOBI)

Blockchain in the Supply Chain: Energy

- Customer billing
 - Every building receiving power from the utility will have virtual identities on the ledger.
 - Energy providers can reduce a lot of errors that happens because of manual operations.
- Renewable energy certificates
 - Power plants generate energy that creates certificates.
 - Certificates trade green energy resources.
 - For provenance, ledger registries can track renewable power systems energy.
- P2P energy sharing networks
 - Buildings wired up with IoT devices allowing for the trading of excess renewable energy.
 - Buildings fully transactive agents with peer buildings and the electricity grid.

Blockchain in the Supply Chain: Fashion

➤ Consumer data

- Interact with clothing on smartphones and explore a product's origins, materials, designing concepts and brand stories.

➤ Anti-counterfeit

- Secure registry to track who owns designer products, to determine whether the product consumers are about to purchase is actually genuine.

➤ Change of custody

- Blockchain records the change of custody every time a product moves from one source to another.

Blockchain in the Supply Chain: Insurance

- **Pricing/ underwriting**
 - Reliable registry for on-demand/usage-based insurance or micro-insurances.
- **Payment & collections**
 - Automate payments through smart contracts evaluating conditions for paying out claims.
- **Claims**
 - Leverage blockchain for information about insured goods and events in order to fight fraud.
- **Risk capital and investment management**
 - Make data available for re-insurers or other parties in a controlled way.

Blockchain in the Supply Chain: Oil & Gas

- **Records management**
 - Land transactions (e.g., rights to access; ownership); sales of oil and gas; service contracts; multi-jurisdictional sourcing contracts; joint ventures.
- **Trading**
 - Represent the asset being transacted with digital token: process payments (especially x-border) more quickly; reduce brokers' fees; eliminate paperwork for title transfers.
- **Invoice management**
 - Avoid manipulation of invoice values, used to avoid taxes or inflate costs. Speed up tax authority audits.

Blockchain in the Supply Chain: Healthcare

The current blockchain trend is serving the healthcare industry in many ways – better supply chain, resolving drug counterfeit, improved data storage, and security

CHALLENGES OF THE CURRENT HEALTHCARE SYSTEM

- Drug counterfeit
- Data segmentation
- Poor management
- Healthcare security and data storage



HOW BLOCKCHAIN CAN SOLVE HEALTHCARE ISSUES

- Interoperability
- Security
- Maintenance cost
- Data integrity
- Universal access



Blockchain in the Supply Chain: Healthcare

1

DRUG TRACEABILITY

Solves drug counterfeit by providing time-stamped and immutable transactions across the supply chain.



3

PATIENT DATA MANAGEMENT

Blockchain can be used to manage and store patient data securely. This improves personalized and on-point treatments.



BLOCKCHAIN TRANSFORMING HEALTHCARE



2



CLINICAL TRIALS

Improve clinical trial monitoring and effectiveness by removing frauds and data manipulation. This will further improve healthcare by a long shot.

4



CLAIM AND BILLING

By removing intermediates, blockchain can improve both claim and billing aspects of the healthcare industry.

BLOCKCHAIN USE CASES IN SUPPLY CHAIN

	PEER-TO-PEER TRANSACTION SETTLEMENT Direct peer-to-peer transactions with faster processing and minimum fees.		BETTER SHIPPING DATA Real-time shipping data helps to forecast the arrival of products and raw materials.
	AUDIT TRANSPARENCY Streamlining auditing process to offer sustainability and detect all inefficiencies.		FOOD SAFETY Ensures food safety by checking the quality of the production line within the supply chain network.
	TRACKING CONSUMER FEEDBACKS Keeping track of all customer feedbacks and generating products based on customer demands.		AUTOMATION Automation helps to reach a higher speed of data process and greater visibility.
	REDUCING COUNTERFEIT PRODUCTS Tracking every workflow and logs, blockchain reduces the possibility of counterfeit products.		PROVENANCE Ensures Provence for every product to satisfy the consumer of the authenticity of the product.
	ENFORCING TRADE POLICIES AND TARIFFS Tariffs are trade policies will automatically be enforced if a product gets traded internationally.		NO HUMAN ERROR Reduces the reliance on human tasks, which reduces any human errors that save money.
	INVENTORY MANAGEMENT Distributed ledger helps the authorized user to manage the inventory with their exact location.		IDENTITY VERIFICATION Verification of every party within the supply chain enforces safe play and gets rid of bad players.
	ACCURATE COSTING INFO Tracking all costs and timestamping them along the chain offers accurate costing information.		AVOIDING COMPLIANCE VIOLATION Helps to follow all compliances with proper authorization from the law that gets rid of any violation.

MODULE 3 - SUMMARY

Blockchain in The Supply Chain - Use Cases



101 Blockchains

Enterprise Blockchain in The Supply Chain- Use Cases

- Understand the dynamics of SCM flows.
- Learn where enterprise blockchain is currently applied.
- Evaluate the parts of your supply chain that would benefit the most from enterprise blockchain.

MODULE 4

Implementing Blockchain in Your Supply Chain



101 Blockchains

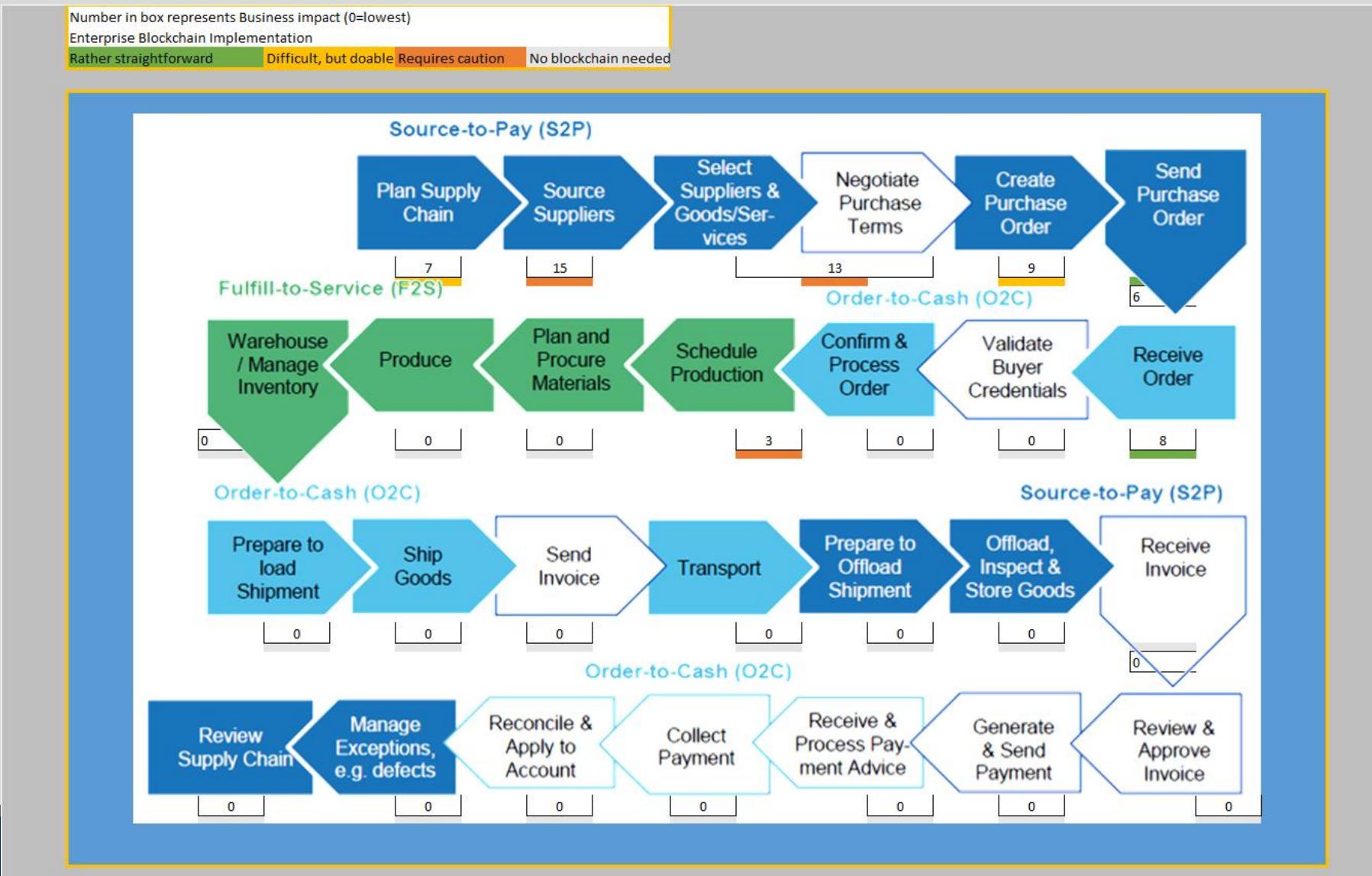
Implementing Enterprise Blockchain in Your Supply Chain

- Understand how to select critical supply chain processes.
- Learn how to prioritize enterprise blockchain implementation activities.
- Evaluate impact of improved supply chain processes on corporate business value.
- You will be able to determine which parts of a supply chain benefit from enterprise blockchain applications.

Strategy and Implementation: Verify enterprise blockchain fit

Instructions						
<p>For each proposed process item place '1' in the cell that most closely reflects your assessment.</p> <p>Each row can have more than one cell selected. Rows can be left empty.</p>						
Blockchain characteristics				Business Impact		Difficulty to Change
Supply chain processes	Chain of possession (Provenance)	Immutability	Distributed and decentralized	Smart contracts		
Plan supply chain						
Elaborate sales forecast		1				
Plan for logistics and transportation						
Establish labor policies	1					
Define outsourcing plans						
Plan for capacity						
Define production process						
Define production layout and Infrastructure						
Establish supply chain layout						
Elaborate distribution network	1	1				
(to add row: highlight row > right click > Copy > right click > Insert Copied Cells)						
Source Suppliers						
Develop Procurement Plan		1				
Clarify Purchasing Requirements	1	1	1			
Develop Inventory Strategy						
Match Needs to Supply Capabilities						
Analyze Company's Spend Profile						
Seek Opportunities to Improve Efficiency and Value						
Collaborate with Suppliers to Identify Sourcing Opportunities	1	1				
(to add row: highlight row > right click > Copy > right click > Insert Copied Cells)						
Select Suppliers and goods/negotiate sales terms						
Select suppliers						

Strategy and Implementation: Verify enterprise blockchain fit



MODULE 4 - SUMMARY

Implementing Blockchain in Your Supply Chain



101 Blockchains

Implementing Enterprise Blockchain in Your Supply Chain

- Understand how to select critical supply chain processes.
- Learn how to prioritize enterprise blockchain implementation activities.
- Evaluate impact of improved supply chain processes on corporate business value.
- You will be able to determine which parts of a supply chain benefit from enterprise blockchain applications.

ENTERPRISE BLOCKCHAINS CAREER PATH COMPLIMENTARY RESOURCES:

- [Think Tank Webinar Series](#)
- [Virtual Conference Series](#)



101 Blockchains

ARE YOU READY TO JOIN THE BLOCKCHAIN REVOLUTION?



101blockchains.com



contact@101blockchains.com



linkedin.com/company/101blockchains