

# KHNP SCM

# KHNP

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2023.04.23

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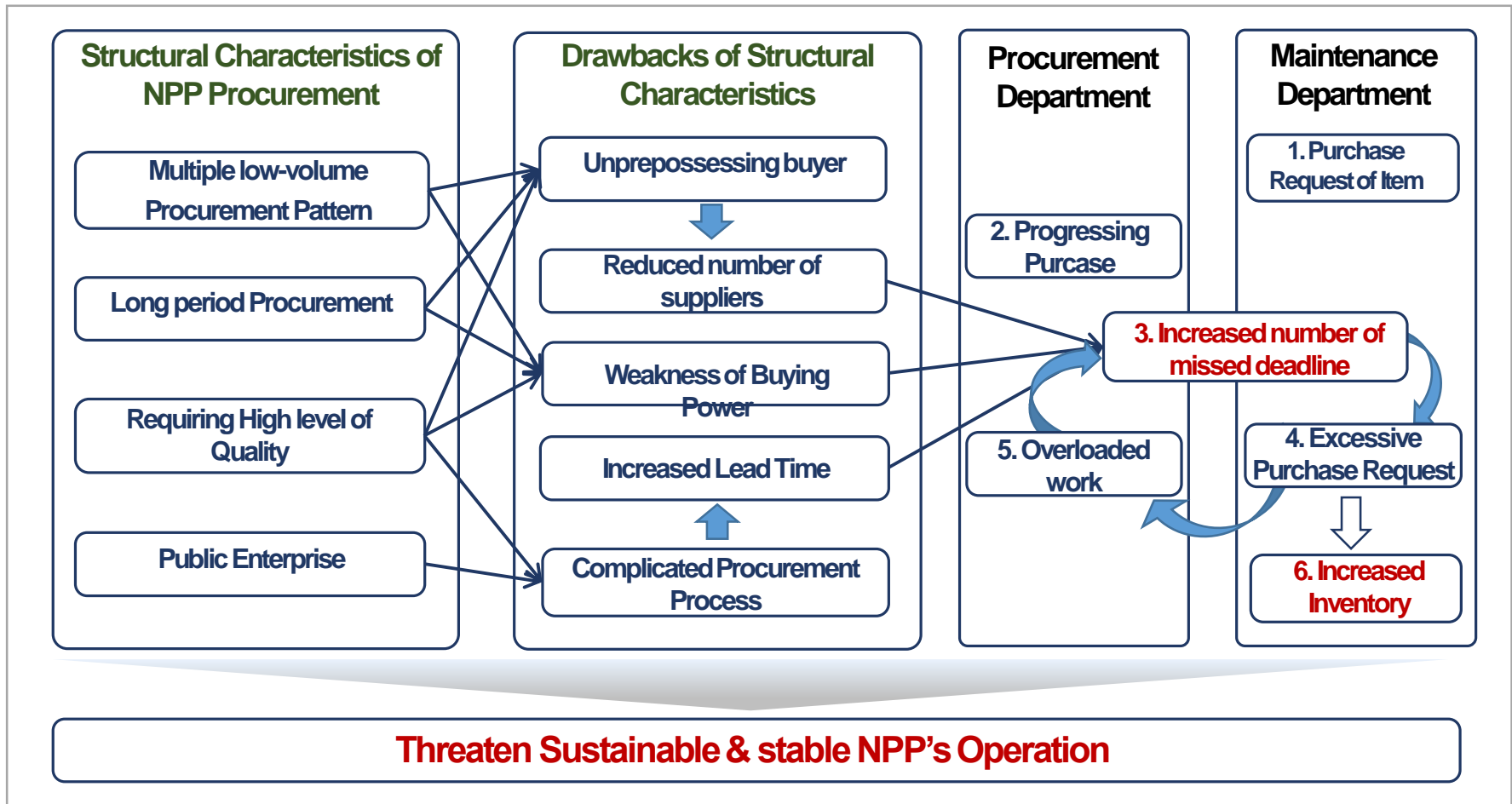
# Agenda

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- 1 Overview of KHNP SCM**
    - 1.1 Background**
    - 1.2 KHNP SCM Definition**
    - 1.3 KHNP SCM strategy**
  - 2 Introduction of KHNP SCM**
  - 3 KHNP SCM Status & Future**
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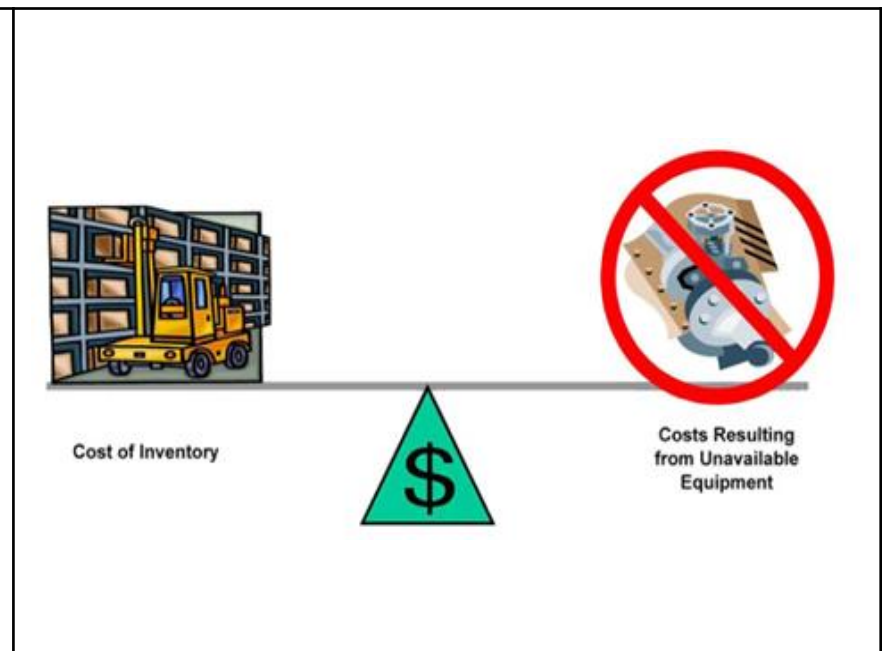
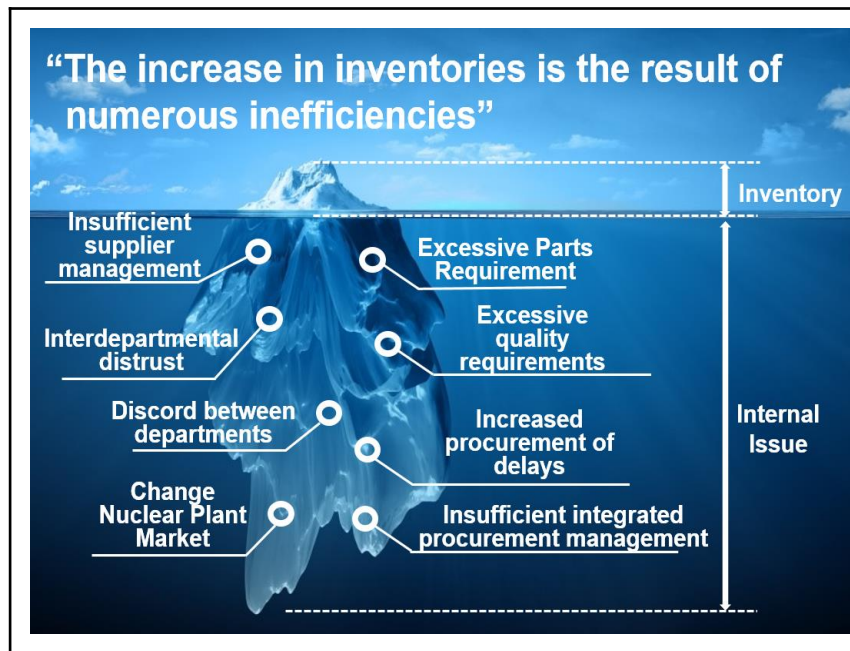
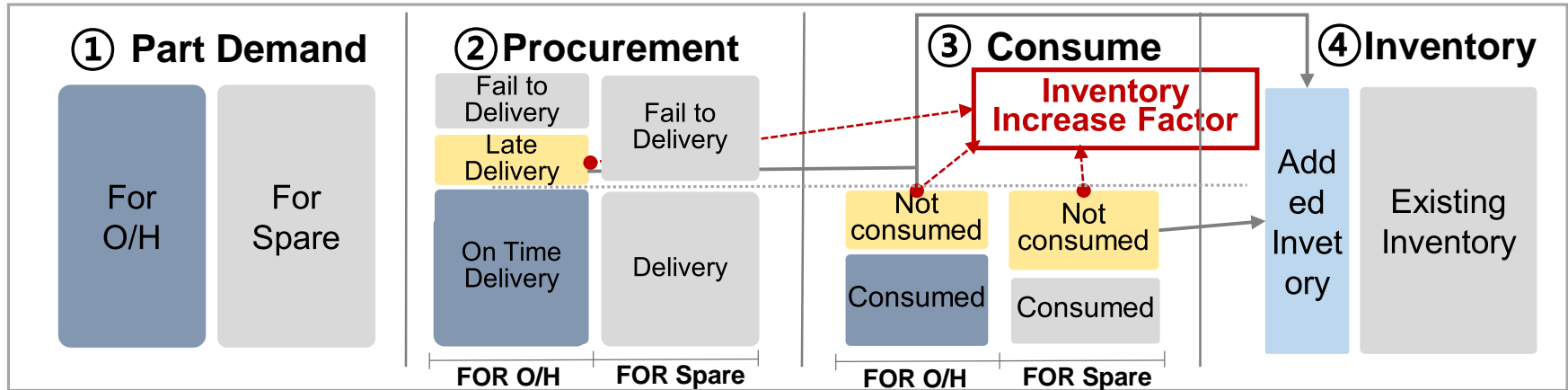
## 1.1 Background(1/2)

- SCM, applying with nuclear power plant (NPP) business, gives priority to 'Procurement' for stability & safety of NPP's operation & maintenance
- General drawbacks appeared in procurement is as below;



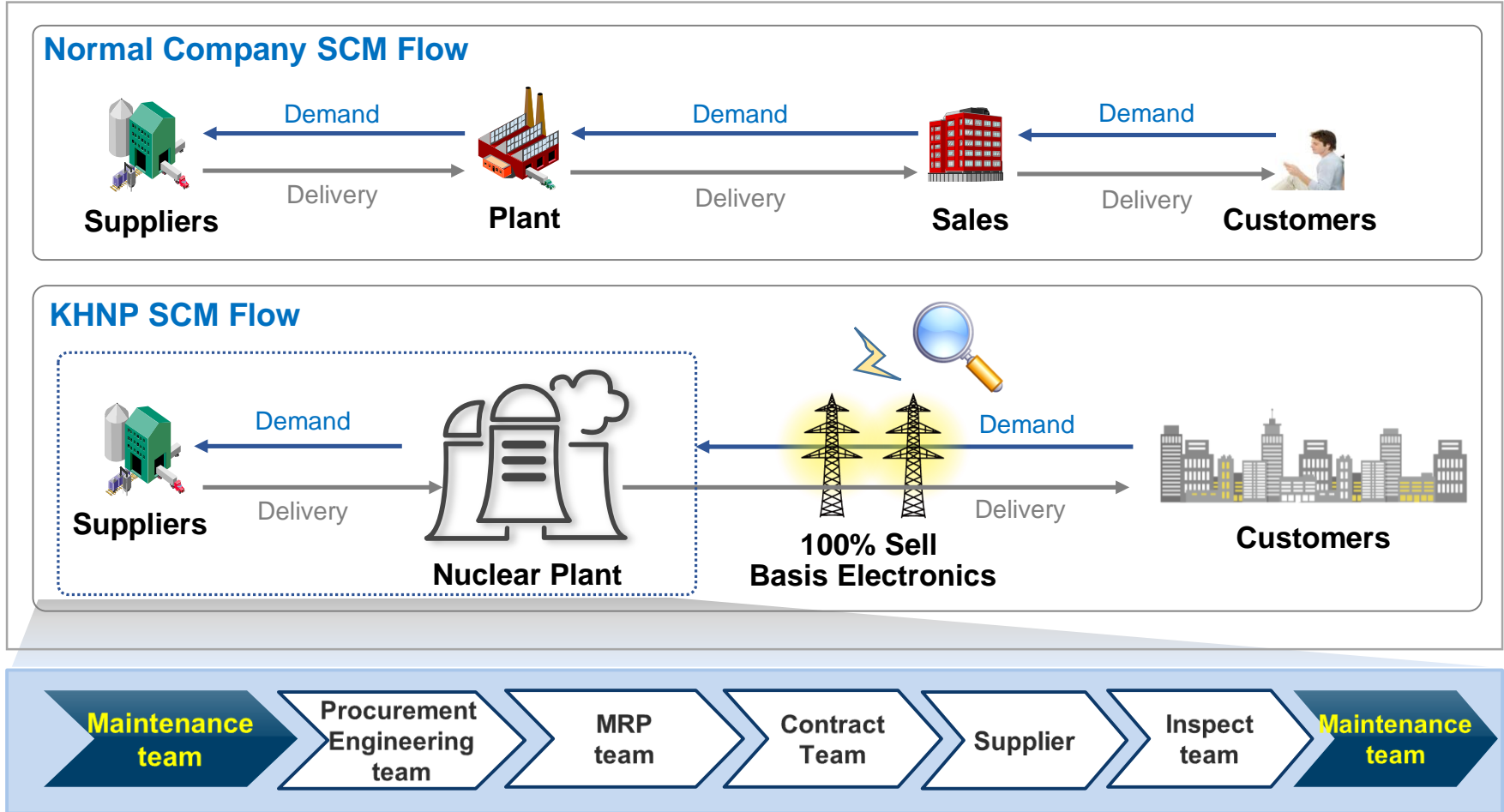
# 1. Overview of KHNP SCM

## 1.1 Background(2/2)



# 1. Overview of KHNP SCM

## 1.2 KHNP SCM Definition(1/2)



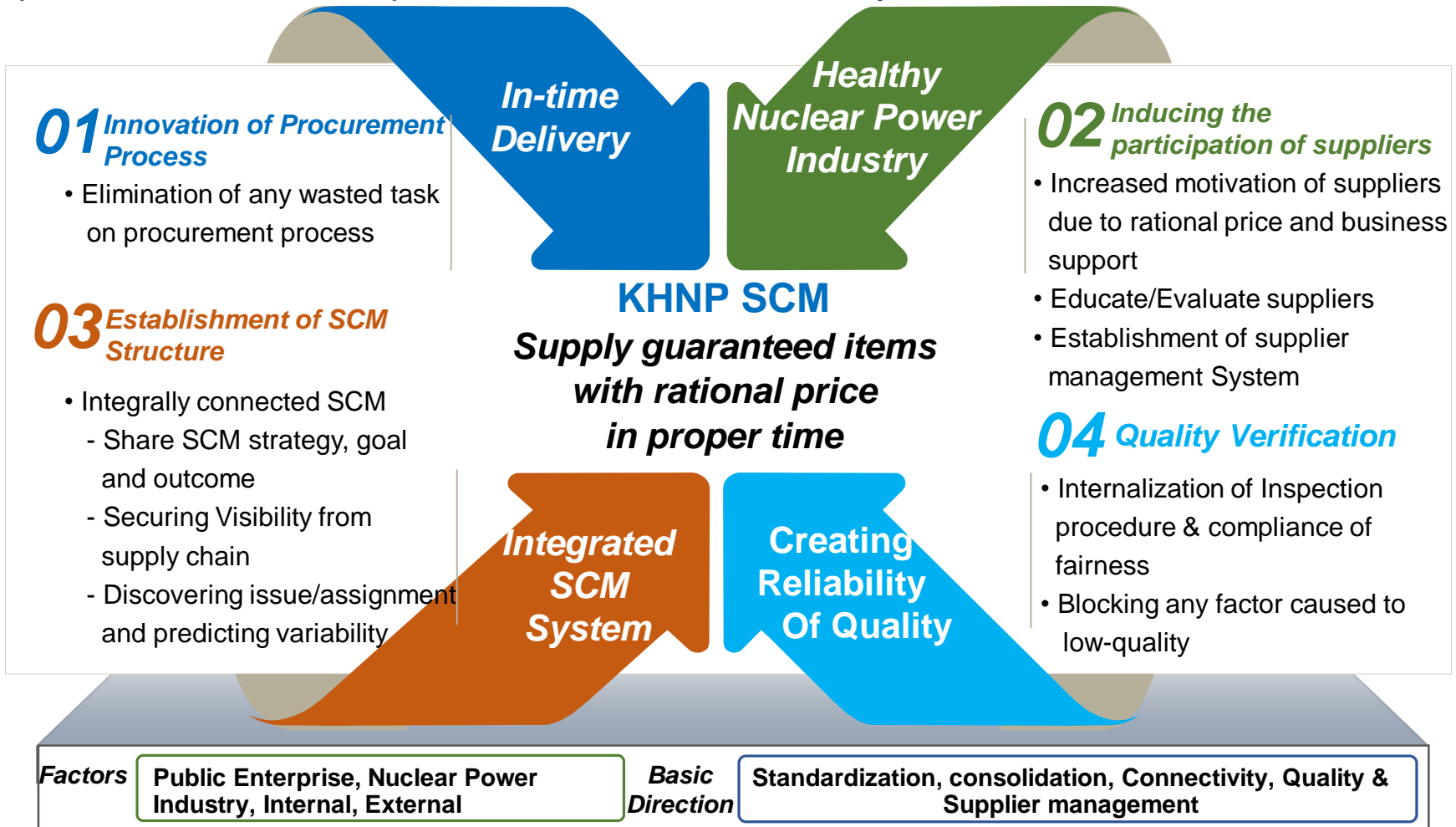
※ KHNP SCM is different from manufacture company which product item and sell it to final customer.

※ KHNP SCM's customer is maintenance team and we apply NPP's own S&OP and Forecast.

# 1. Overview of KHNP SCM

## 1.2 KHNP SCM Definition(2/2)

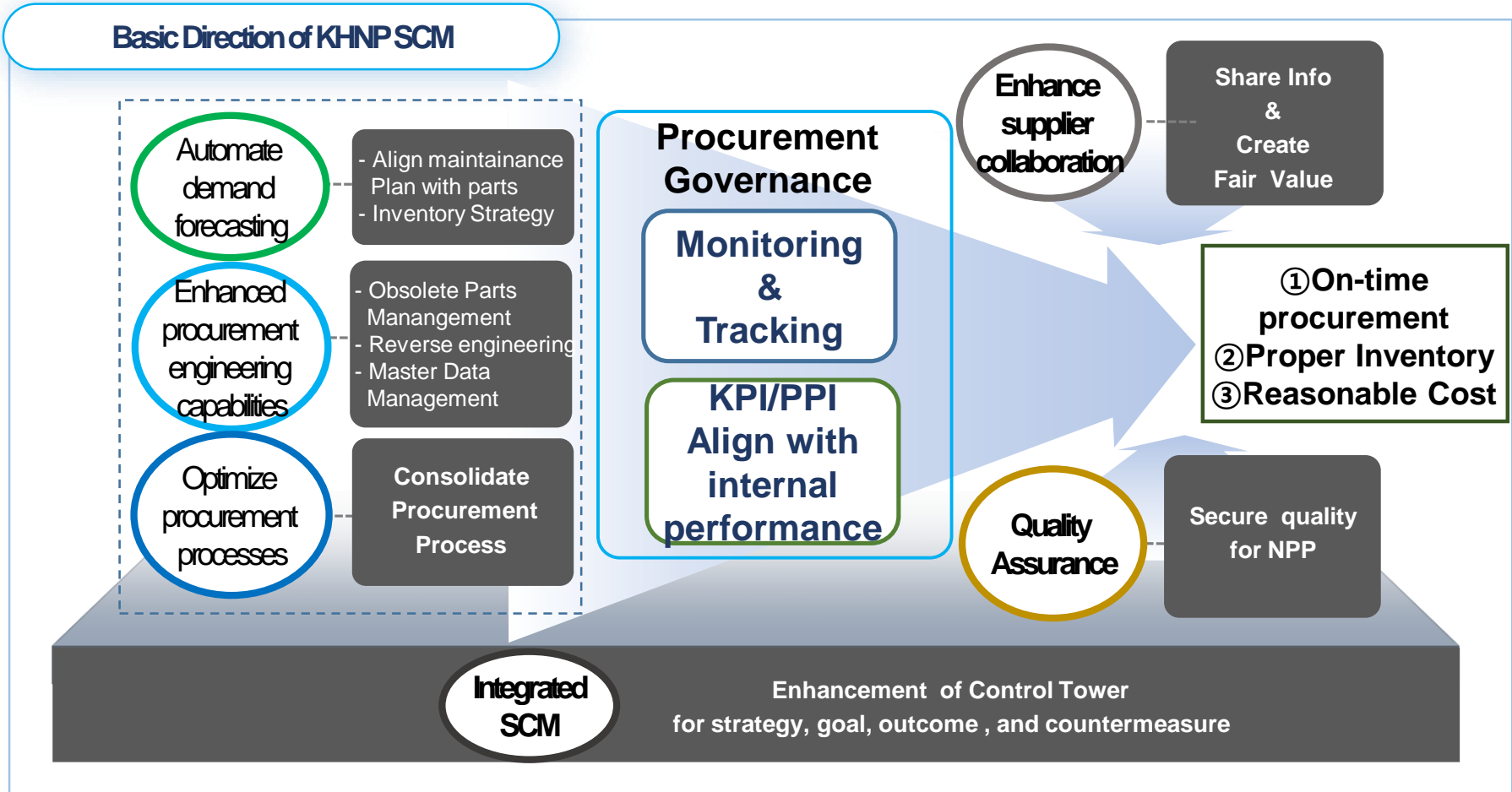
A supply chain management system unique to nuclear power plants that comprehensively manages suppliers and internal purchasing processes to ensure timely supply of quality products at reasonable prices in line with nuclear safety.



# 1. Overview of KHNP SCM

## 1.3 KHNP SCM Direction

- The basic direction of KHNP SCM is to complete the procurement virtuous cycle of proper request, timely procurement, and proper inventory
- All management and improvement of procurement in KHNP SCM governance system



# Agenda

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- 1 Overview of SCM**
- 2 KHNP SCM Major Function**
  - 2.1 Procurement Governance**
  - 2.2 Forecast Part Demand**
  - 2.3 For On Time Delivery Spare Part**
  - 2.4 Inventory Optimization**
- 3 KHNP SCM Status & Future**



# 2. KHNP SCM Major Function



## 2.1 Procurement Governance

### 1. KHNP SCM Governance System

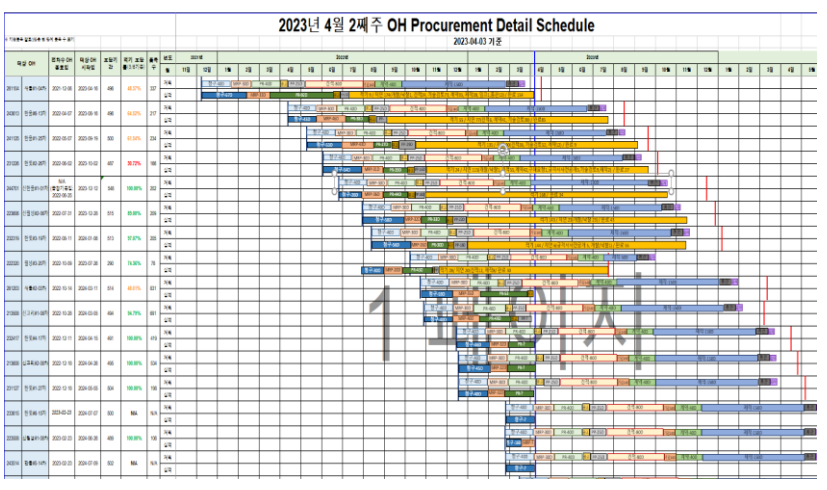


### 2. Procurement Tracking System

The table lists procurement items with the following columns:

- Item Name (e.g., 1. MFP, 2. MFP, 3. MFP, 4. MFP, 5. MFP, 6. MFP, 7. MFP, 8. MFP, 9. MFP, 10. MFP, 11. MFP, 12. MFP)
- Quantity (e.g., 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3)
- Status (e.g., 진행중, 완료, 대기)
- Contract No. (e.g., W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10)
- Contract Date (e.g., 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30)
- Contract Type (e.g., 일반, 일반, 일반, 일반, 일반, 일반, 일반, 일반, 일반, 일반, 일반, 일반)
- Contract Status (e.g., 진행중, 완료, 대기)
- Contract Value (e.g., 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00)

### 3. Procurement Process Monitoring



### 4. SCM Project Manager

The table lists projects with the following columns:

- Project Name (e.g., 1. MFP, 2. MFP, 3. MFP, 4. MFP, 5. MFP, 6. MFP, 7. MFP, 8. MFP, 9. MFP, 10. MFP, 11. MFP, 12. MFP)
- Start Date (e.g., 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30)
- End Date (e.g., 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30)
- Status (e.g., 진행중, 완료, 대기)
- Contract No. (e.g., W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10, W200141290-0-10)
- Contract Date (e.g., 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30, 2020.01.30)
- Contract Type (e.g., 일반, 일반, 일반, 일반, 일반, 일반, 일반, 일반, 일반, 일반, 일반, 일반)
- Contract Status (e.g., 진행중, 완료, 대기)
- Contract Value (e.g., 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00, 1000000000.00)

### 5. SCM Meeting (S&OP) Management

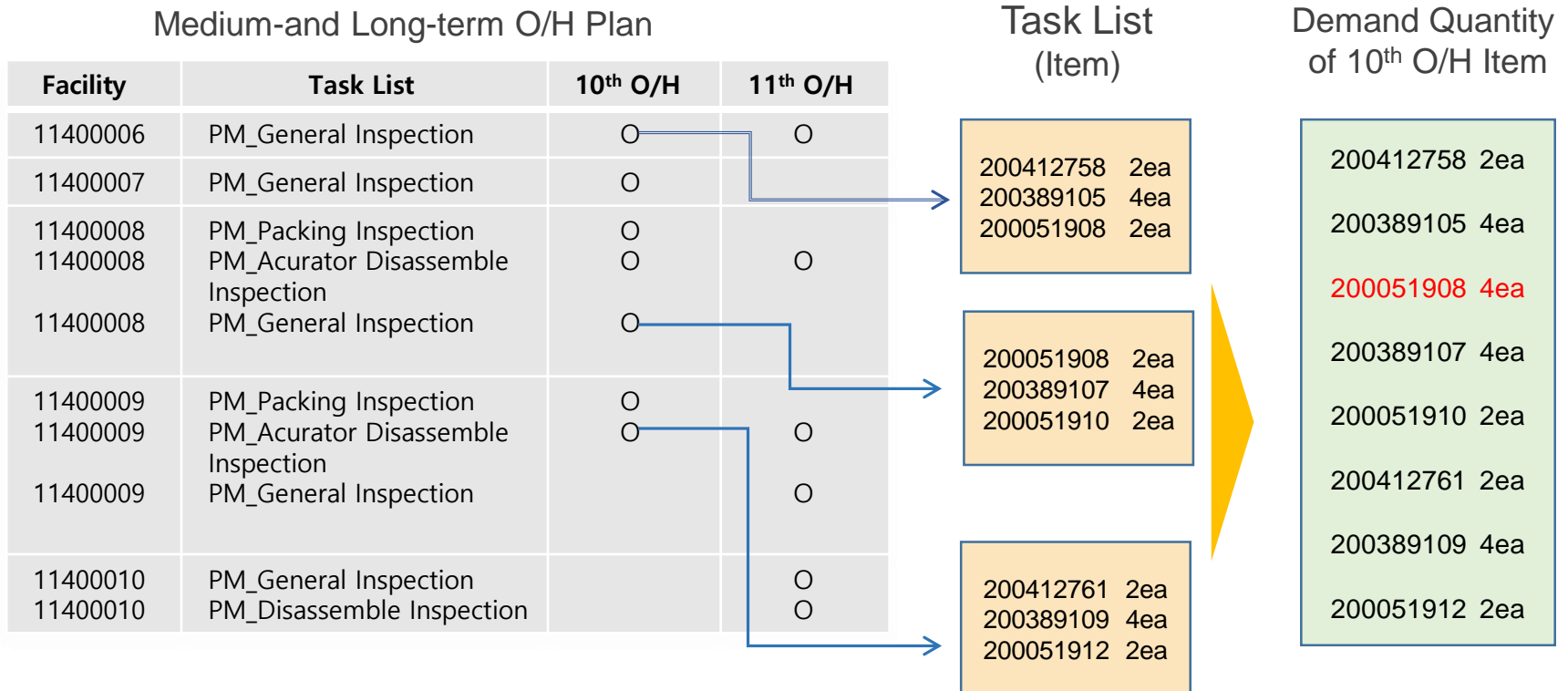


# 2. KHNP SCM Major Function

## 2.2 Forecast Part Demand

Securing accuracy & objectivity through the computation of Demand Quantity for O/H item, applying with medium-and long-term O/H plan, task list, and connected item information

[Example of Computation For Demand Quantity]



# 2. KHNP SCM Major Function

## 2.3 For On Time Delivery Spare Part



### SPA (Specification and Price Agreement)

An agreement made between KHNP and a foreign supplier to facilitate and expedite the process of negotiating and reaching an agreement on the technical, commercial and pricing terms relating to the materials to be purchased by KHNP

### SPA likes HI-Pass



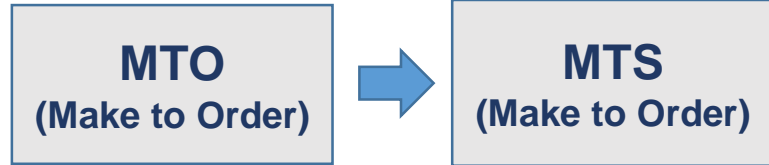
**Before SPA Program**  
Long time required for repeated review/agreement of technical specifications, quality requirements, commercial matters, etc. for each contract



**Phase#1 SPA Program**  
Prioritized agreements centered on high volume, high frequency purchase items  
Shorten L/T and On time delivery rate high

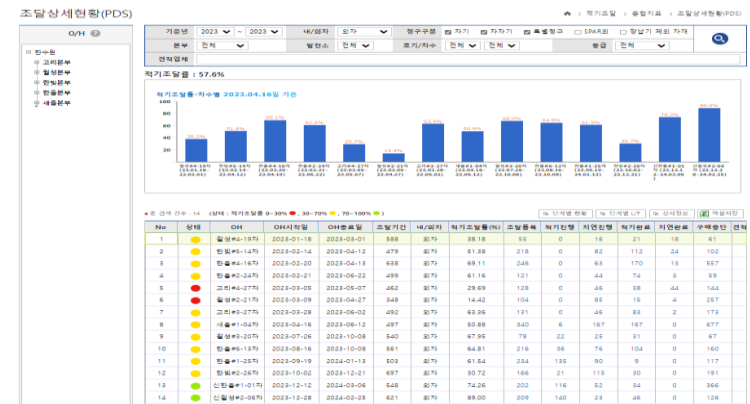


**Phase#2 SPA Program**  
Include most suppliers and items in the agreement  
Expedited procurement, system automated procurement implementation



Spare Parts manufacturing section takes the longest period In KHNP Procurement Process  
So we try to change way of Nuclear Part Procurement from MTO to MST by give KHNP Forecast and confirmed procurement plan

## Procurement Detail Schedule Management



## 2.4 Inventory Optimization

### Snapshot Inventory Data Monthly

We save Inventory Data Monthly about 14 million line data to compare each month inventory change and to analyze what change and why change in inventory

### Align Nuclear Plant Director Performance



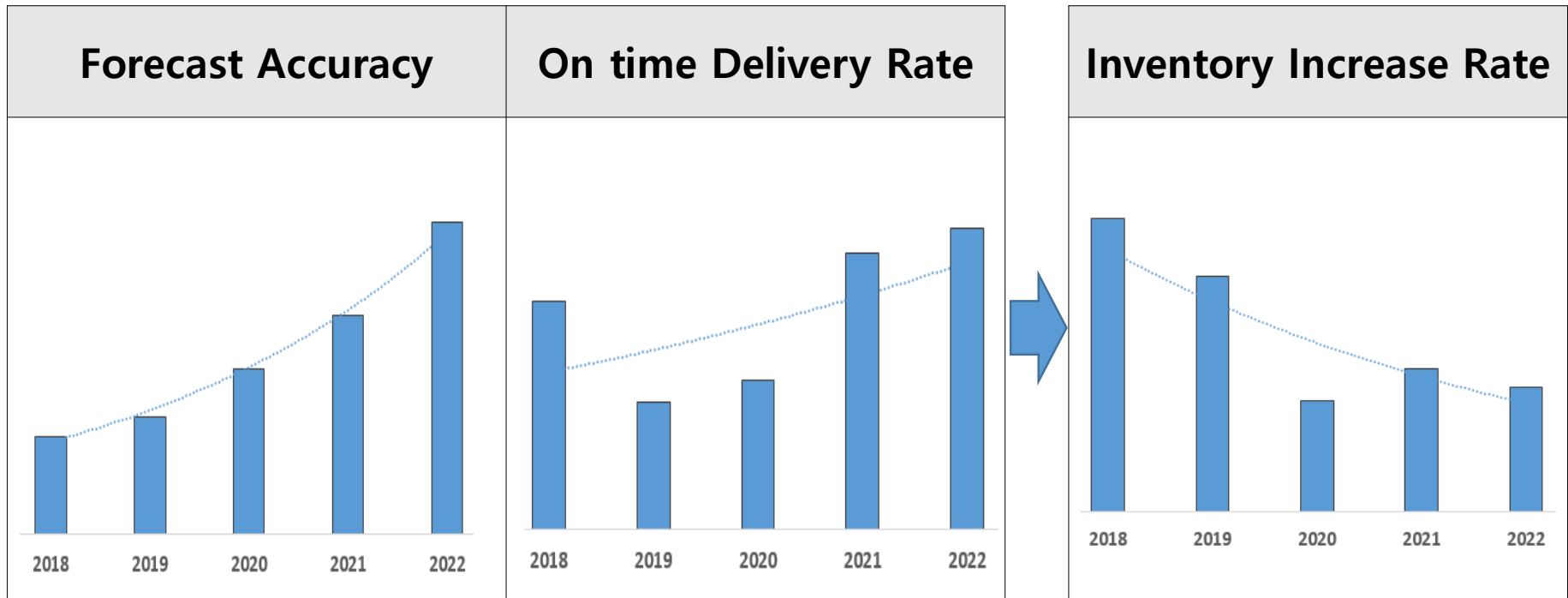
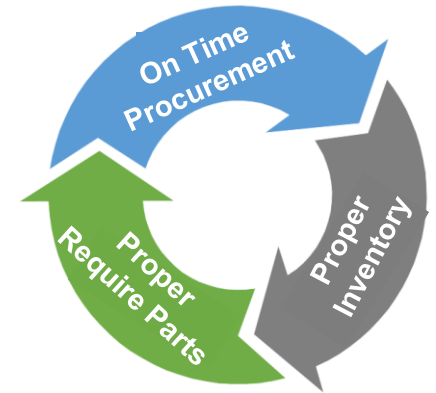
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- 1 Overview of SCM**
- 2 KHNP SCM Major Function**
- 3 KHNP SCM Status & Future**
  - 3.1 Progress Procurement KPI**
  - 3.2 Procurement Process Optimization**
  - 3.3 Future KHNP SCM**

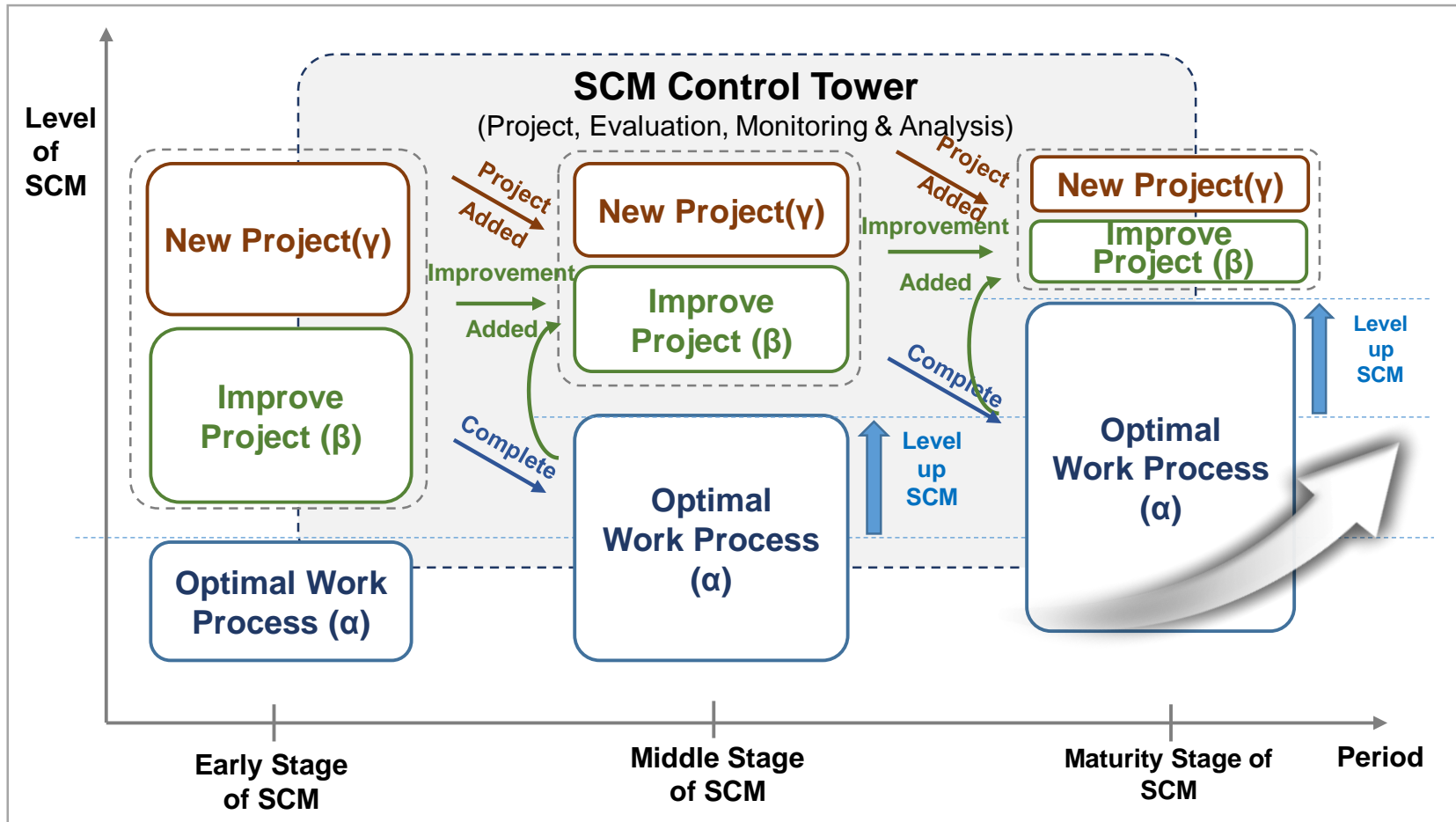
## 3.1 Progress Procurement KPI

KHNP has achieved continuous improvement in procurement-related core KPIs through the SCM system and SCM operation after establishing the system, and continues to develop a unique SCM system for the nuclear power industry.

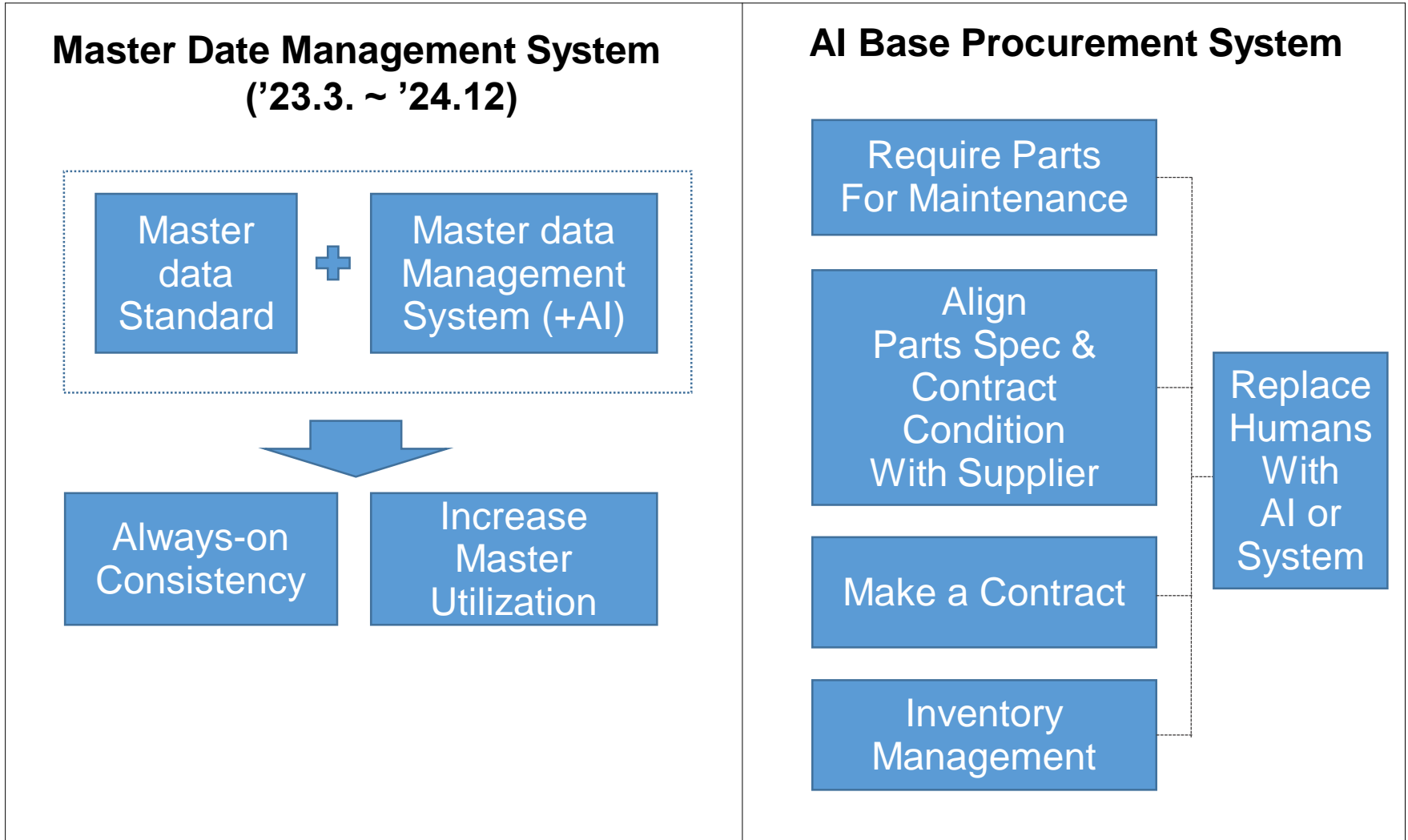


## 3.2 Procurement Process Optimization

- Maintain optimal SCM structure with Performance Management, Monitoring, Problem Solving & improvement



## 3.3 Future KHNP SCM





**THANK  
YOU**

