



IMA (11th)

# Campus Management Accounting Case Competition

Fun Sports: The Inventory Management Practice of an E-commerce Company

*Group NicyZ*





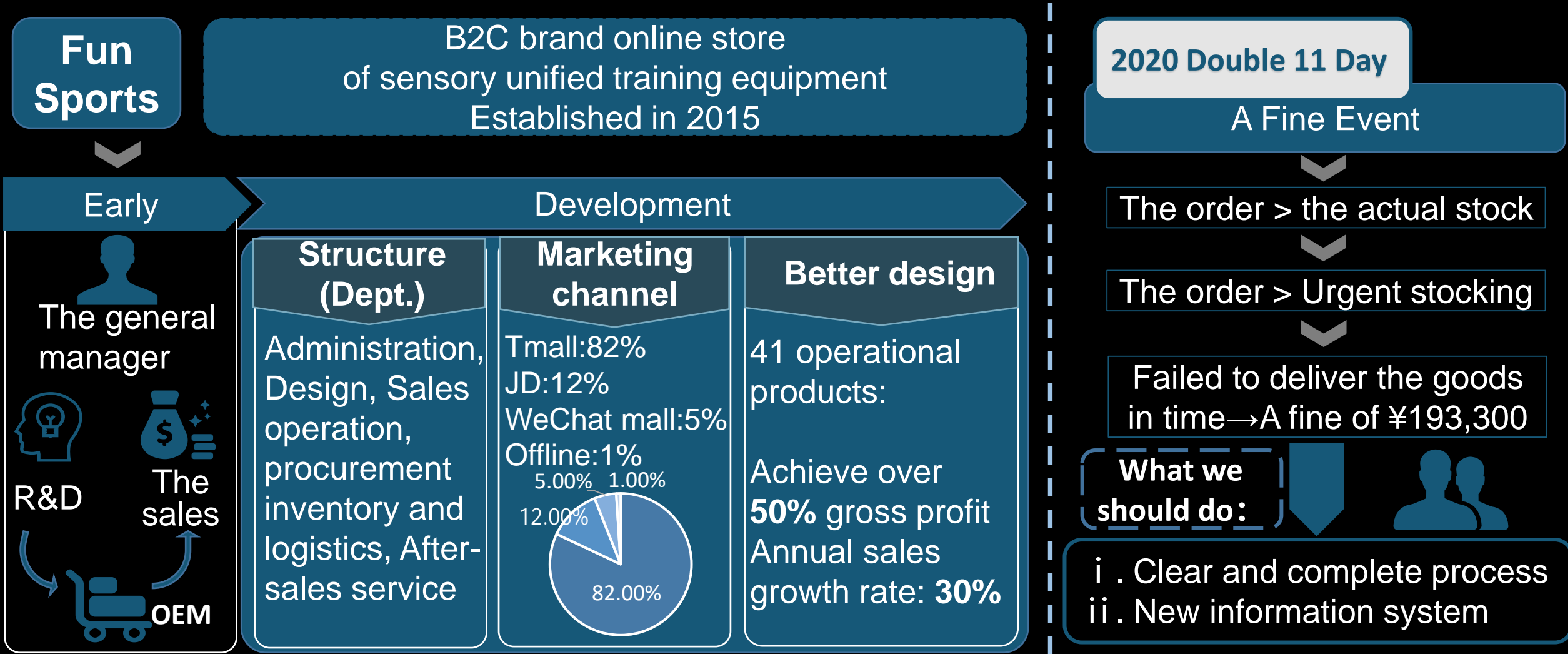
1

Case Overview

*NicyZ*



The B2C e-commerce Fun Campaign has developed well over the past six years, but has problems in the process of receiving large fines in 2020





2

Current situation & issues

*NicyZ*

PEST→The three child policy has been liberalized and the number of children in China has been increasing.

## Politics

## Three-Child Policy



*Decision on optimizing Fertility Policies and promoting long-term balanced population development*

**2022:**

The number of new births increased by more than **1 million**

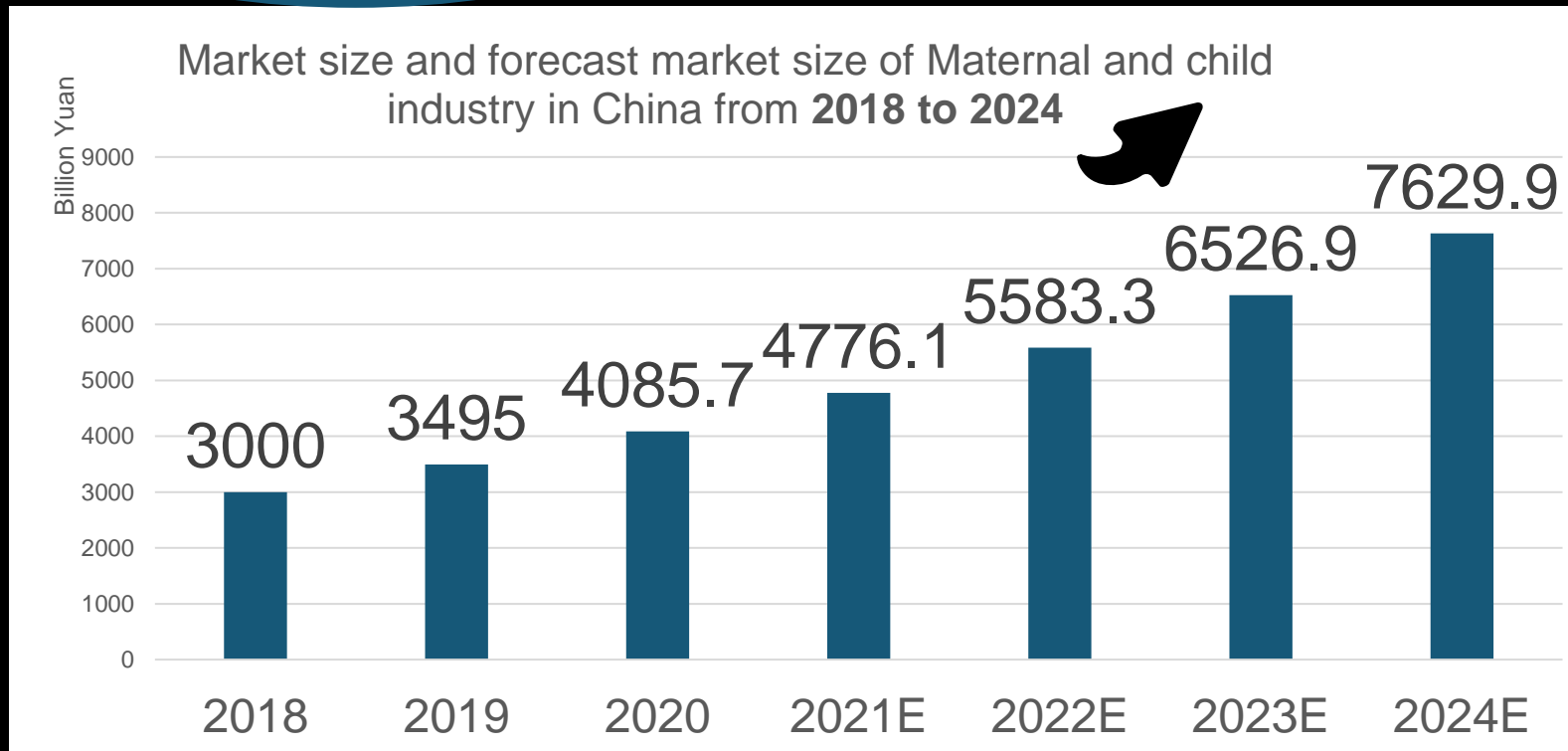
**Expect:**

An average **annual** increase of **800000** new-born population

**PEST→The mother infant market where children's emotional training equipment is located is expanding.**

**Economy**

**Demographic Dividend**



**Insights** 

In 2020, the market scale of maternal and infant industry has reached **4085.7** billion yuan. It is expected to reach **4776.1** billion yuan in 2021 **7629.9** billion yuan in 2024

**PEST→The post-90s become the main force of consumption in the industry, and the new consumption behavior have been generally improved.**

## Society



## New Consumption Concept

Information-based life service  
and consumption concept

replace

Traditional parenting experience  
and parenting methods

## Insights

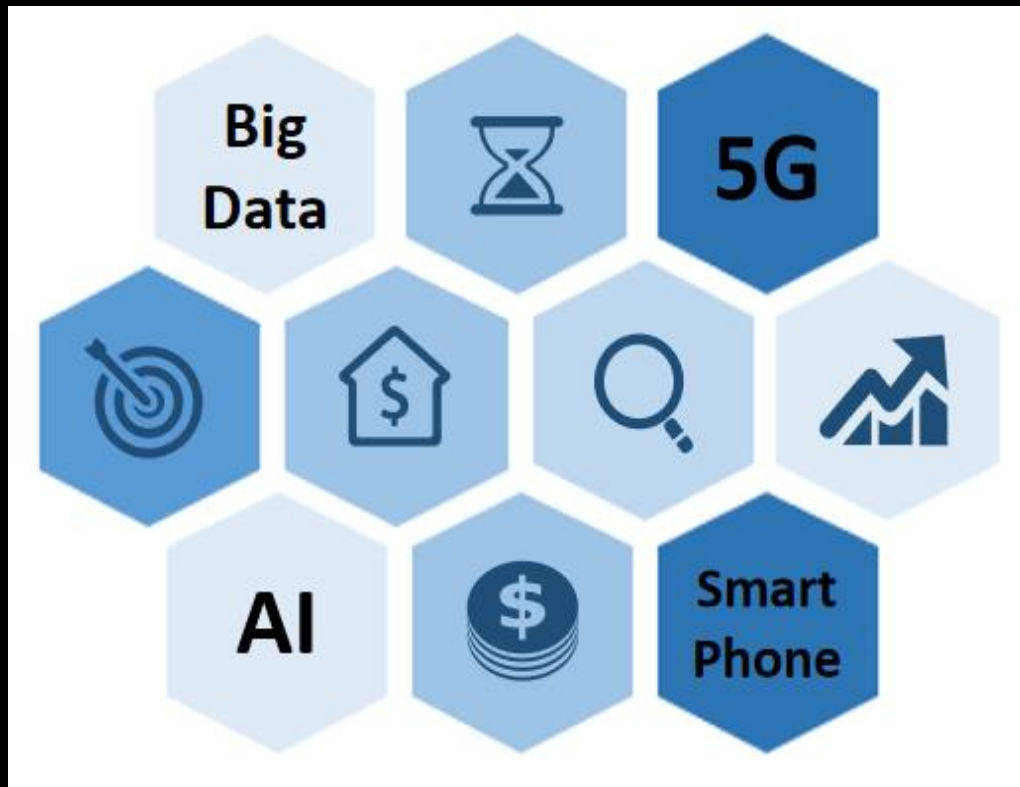
- The **post-90s** have entered the peak of fertility.
- **Stimulated** by policy factors such as liberalization.



**PEST → The technical environment of FS is to improve the consumer experience through the intelligent integration of products, channels and services.**

## Technology

## Technological Progress



1. Refined operation of consumer groups
2. Pre sales, after-sales and additional services
3. Supply chain anagement

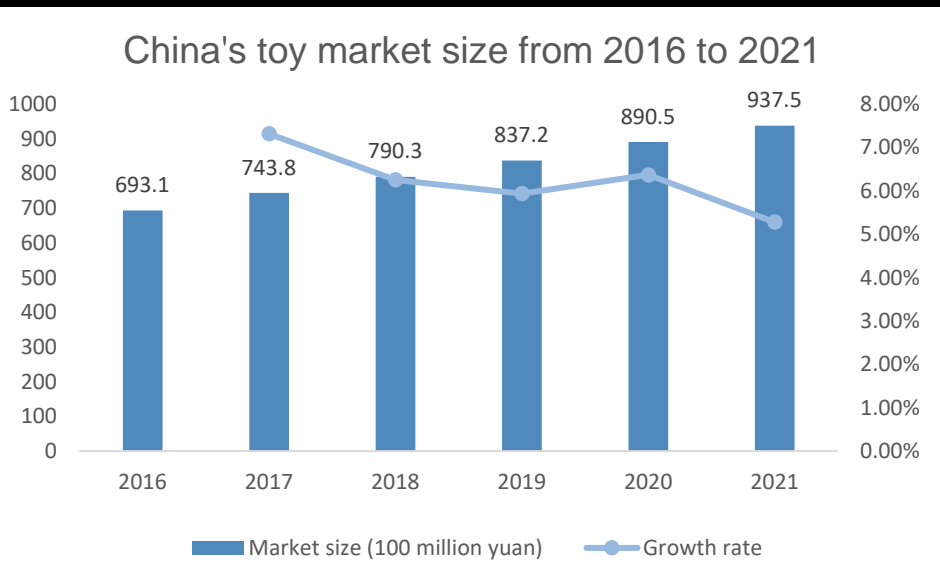
Integrate **online** and **offline** channels, and improve the consumer experience through the integration of **products, channels and services.**



# The domestic toy market has a broad prospect, and Fun Sport are developing rapidly.

1

The scale of Chinese toy market is increasing year by year, and the market demand is large.



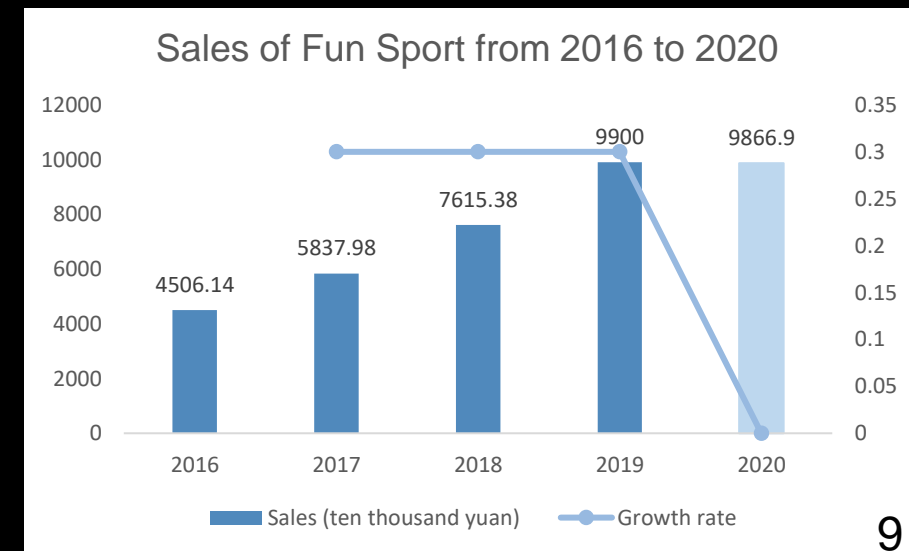
2

Toy industry concentration is low, the degree of industrial cluster is more obvious.



3

The sales of Fun Sports companies are on the rise in recent years.

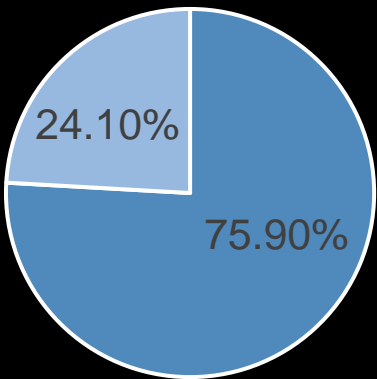


# The scale of online sales is gradually increasing & online sales are the focus of Fun Sport.

4

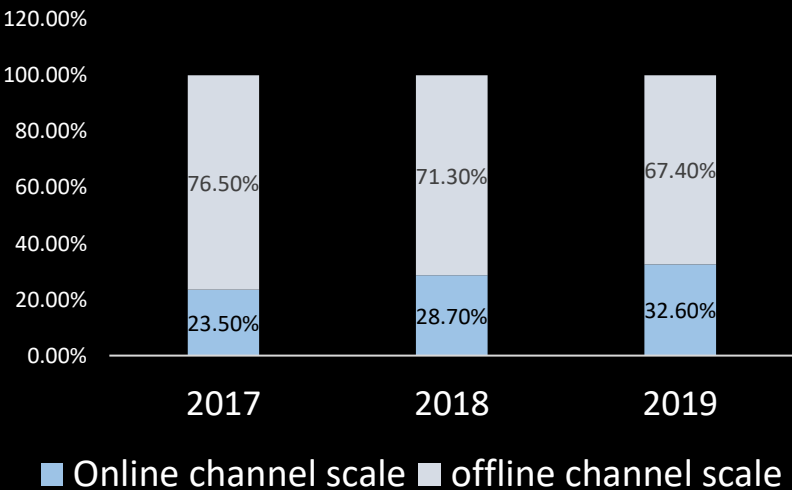
With the rapid development of domestic e-commerce, e-commerce channels have become an important sales channel for domestic toy enterprises.

The proportion of online sales channels of toys in China



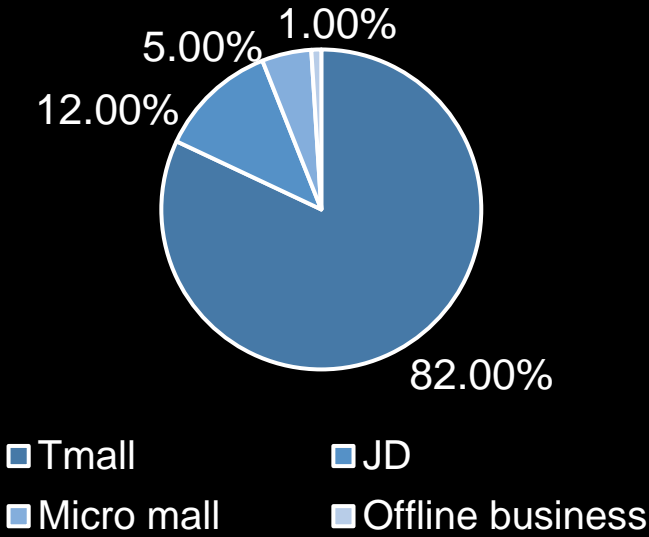
■ Three channels: JD.COM, Taobao and Tmall  
■ Pinduoduo, Tik Tok and others.

The proportion of online and offline retail sales of toys in China



■ Online channel scale ■ offline channel scale

Revenue of various platforms of Fun Sport in 2020

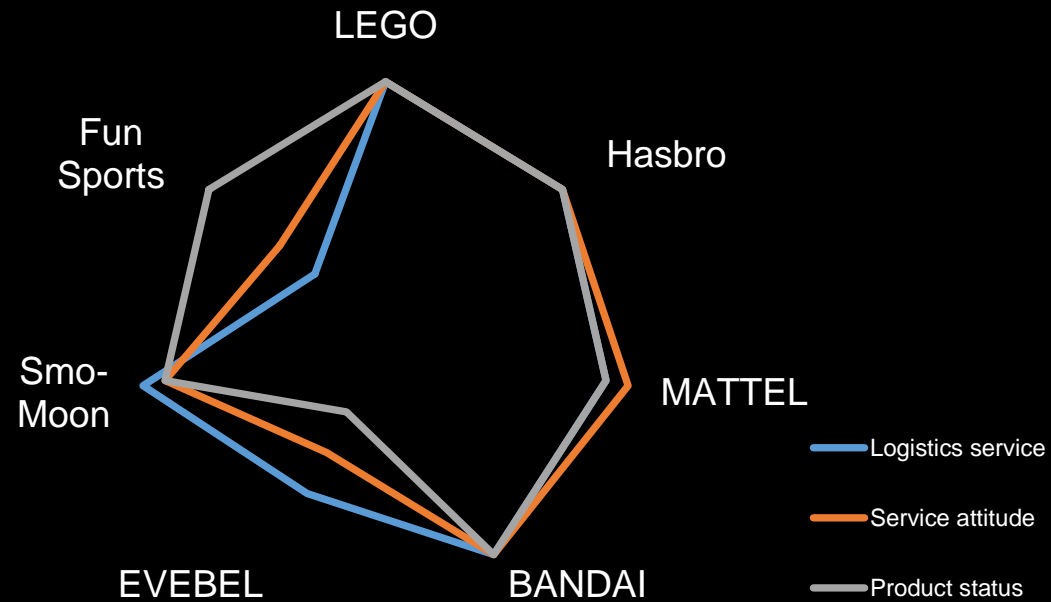


■ Tmall ■ JD  
■ Micro mall ■ Offline business

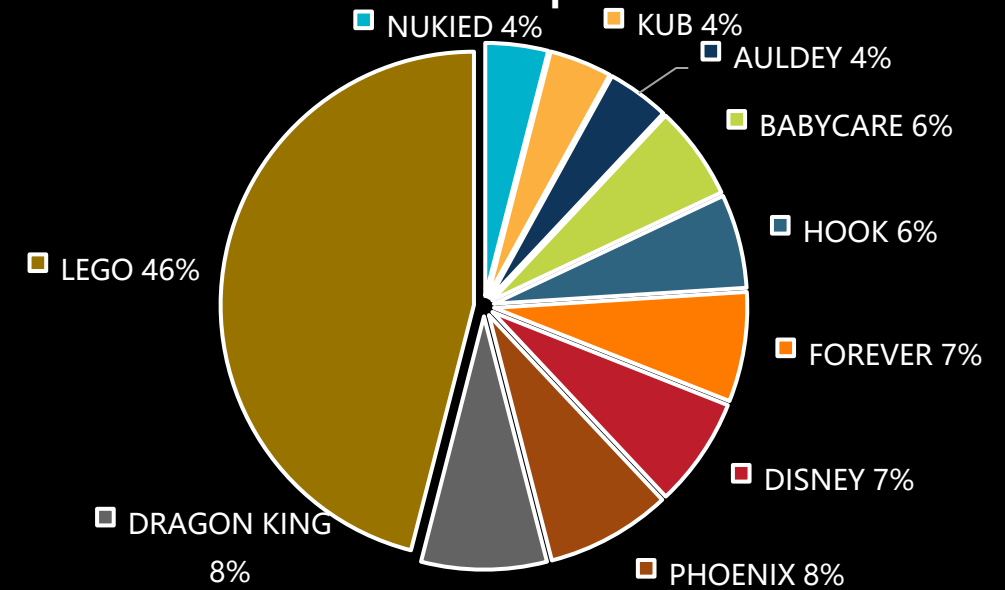


# The industry is highly competitive, and interesting sports logistics and services still need to be strengthened to enhance competitiveness

Main competitor situations



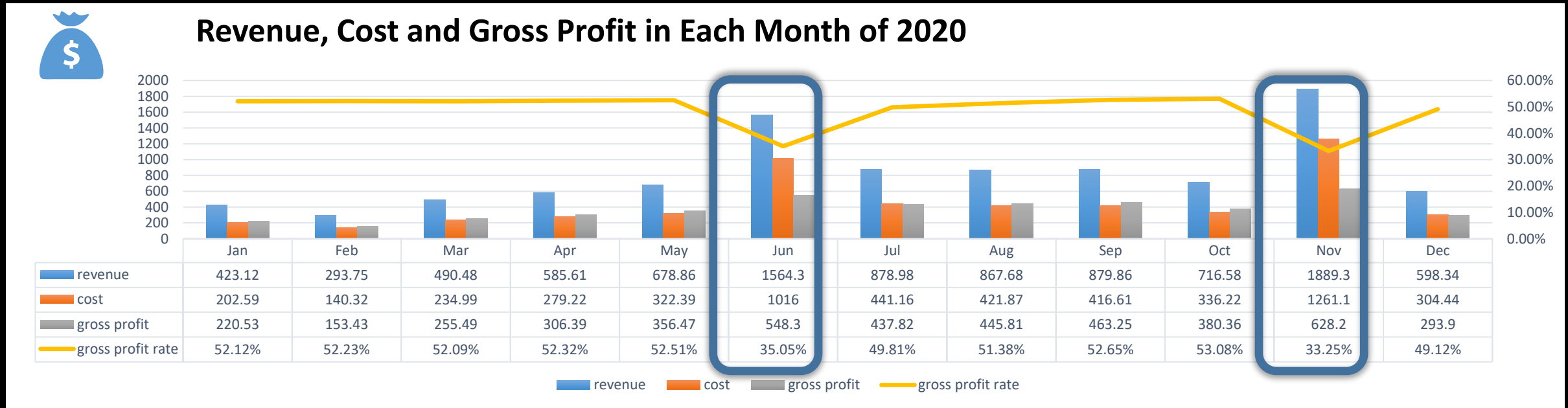
H1 Sales distribution of toy brands on China's mainstream e-commerce platforms in 2020



- The competitive landscape for Fun Sports is grim.
- Domestic and foreign competitors are highly competitive.
- As can be seen from the figure, there are still major problems in **logistics service** and **service attitude** of Fun Sports.

The review of monthly operating income in 2020 reflects many undeelying issues in internal warehouse management and information system.

## Financial Status:



### Direct reasons

#### OEM (contract manufacturer)

- 1.Weak bargaining power
- 2.No competition mechanism (Large products)
- 3.OEM increases processing costs

### Underlying causes

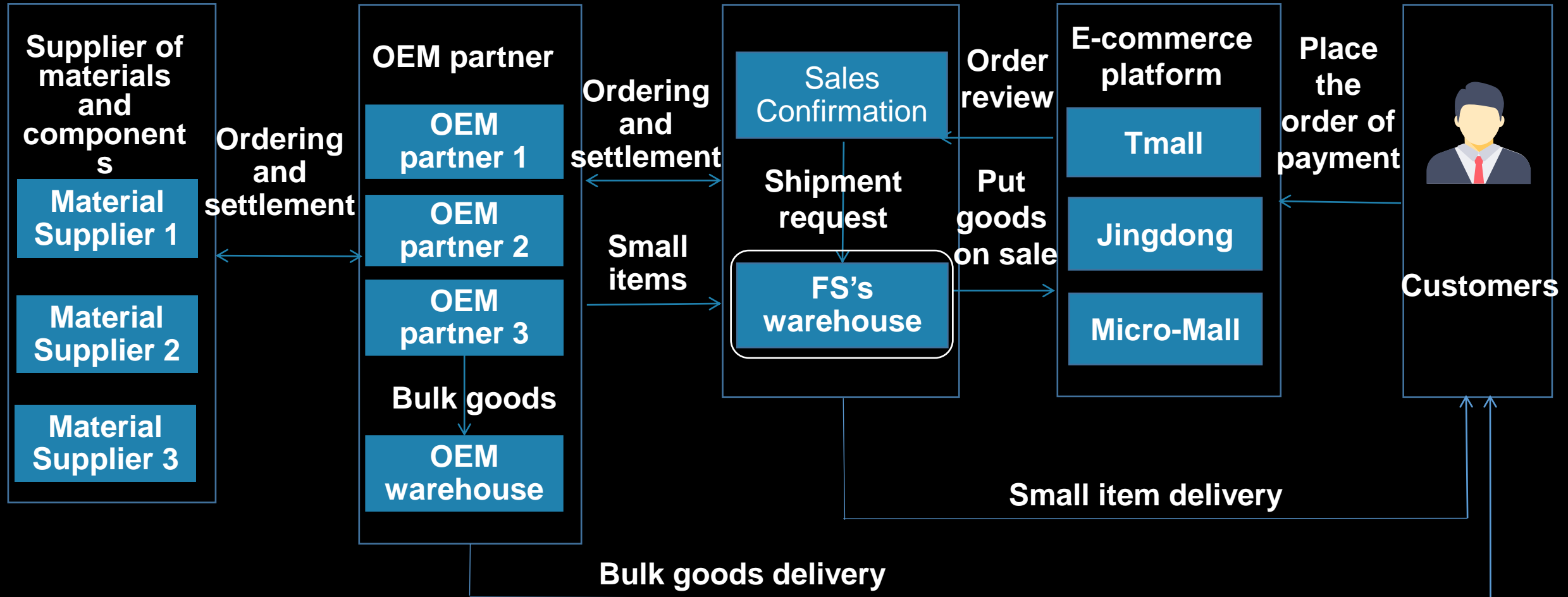
- Warehouse operation process
- Information sharing with OEM
- Imperfect information system
- Multi platform inventory inconsistency

Next part !

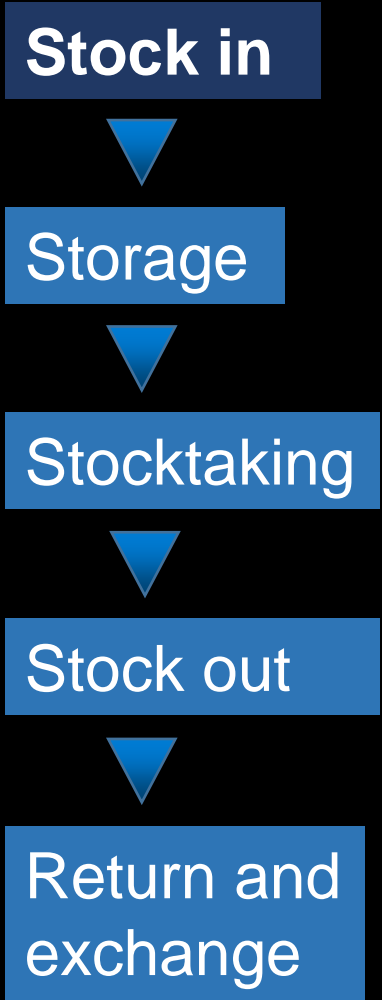




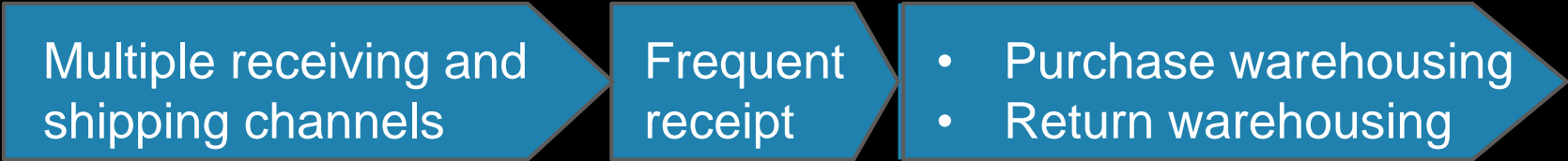
## Overview of FS current warehouse management and operation process



Warehouse operation process → The frequent receipt of goods makes stock in operation nonstandard and the accounts inconsistent with the facts.



1 Cause path:



2 Peak period:

- The warehousing operation is **not standardized**.
- The quality of returned products is **not** clearly **distinguished**.
- Lack clear system **records**



Discrepancy between account and reality

3 Process of Stock in:

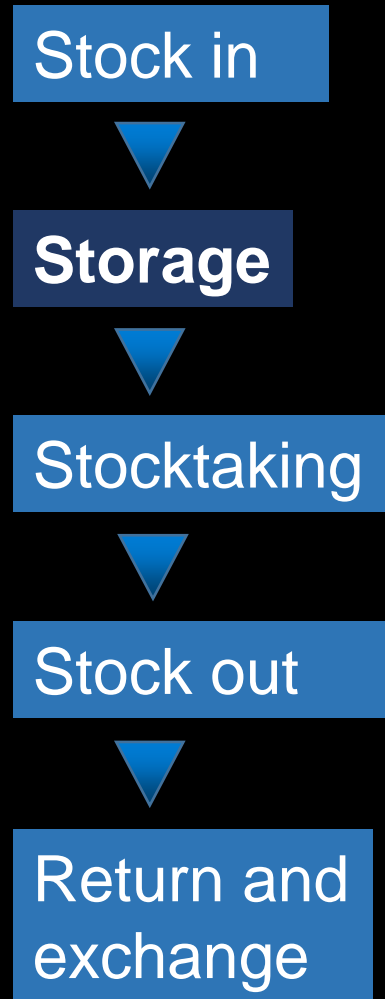
- Before:** • The procurement department may have insufficient review.
- During:** • The receiver of interesting sports did not carefully check the details.
- After:** • The receiving clerk failed to ensure that the accounts and goods are consistent.

**Reason code	1.Holes   2.Dirt marks/oil stains   3.Fabric/Yarn defects   4.Broken/runoff/skipped stitches 5.Twist seam   6.Printing defect/shrinkage						
COUNTRY	FACTORY	BUYER	Style NO	Color	NO SIZE	TOTAL	Reason(refer to reason code)
VIETNAM	HHHH	PINK	8019	WHITE		2,400	Hole and stain





**Warehouse operation process → The unreasonable storage of goods leads to no place to put, and the storage efficiency is low.**



## 1 Cause path:

- Lack clear regulations
- Unified standards

result in

1. Goods being nowhere to be placed.
2. Low efficiency of products entering and leaving the warehouse.

## 2 Unsalable overstocked products:

### Causes:

- (1) **Procurement** problems:  
Information not synchronized
- (2) **New product stock** problem:  
Inaccurate sales forecast
- (3) **Quality** problems:
- (4) Warehouse **management** problems:  
Inexperienced  
Unable to provide suitable suggestions

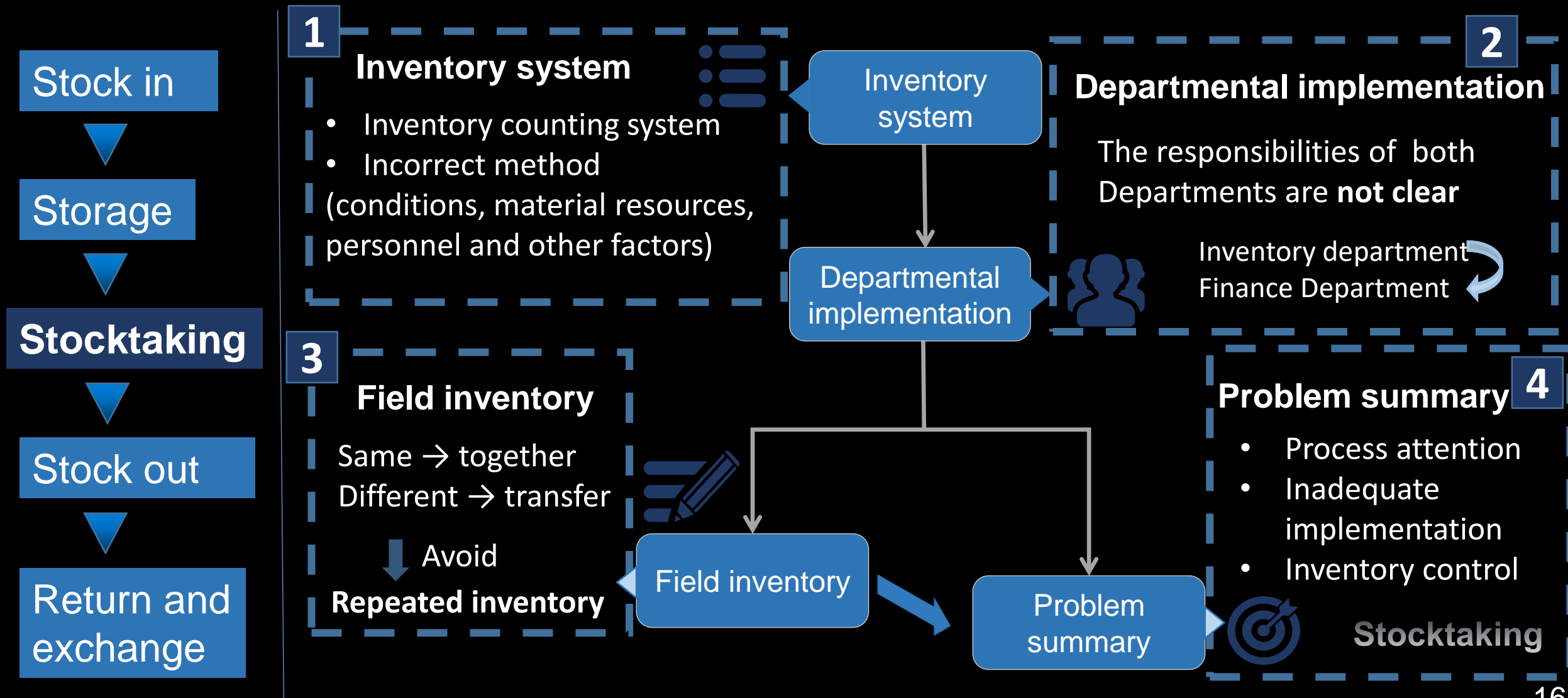
### Loopholes:

- lack of specific management measures
- small space, but serious **backlog**

### Aftermath:

- occupation of funds
- occupation of warehouse space and human resources
- the **profitability** of enterprises

**Warehouse operation process → The inventory method is not correct, the responsibilities are not clear, and the system is not effectively implemented.**



**Warehouse operation process → The balance of goods is not checked accurately, and the accounts and goods are inconsistent.**



**During delivery:**



1. Lack of **detail check** and **quality inspection**

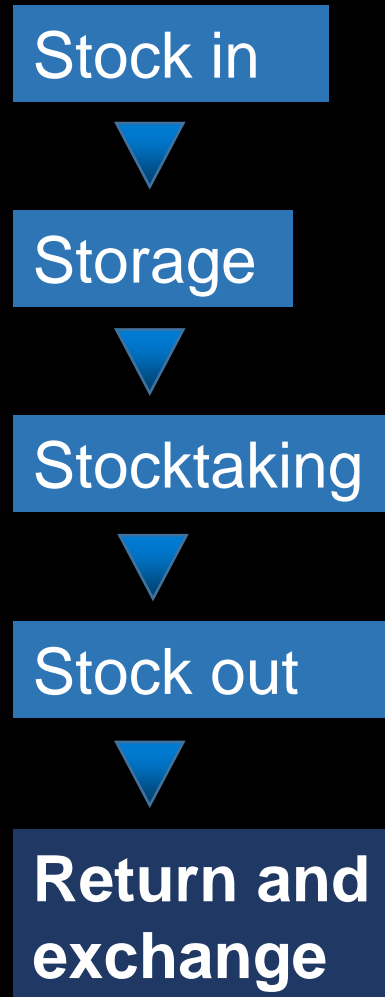
2. Lack of clear **responsibility**

**After delivery:**

3. The **balance** of goods after delivery is not clear



**Warehouse operation process → Lack of effective management, inadequate tracking of repair status, and the returned goods are not recorded in time.**



### System management



**Repair :No tracking**

1. **reasons** for commodity maintenance
2. corresponding **number** of maintenance consumables
3. maintenance **time** of each commodity
4. **real-time** progress of maintenance

### Registration procedures



Not recorded in time

**Problems:**

1. distribution of maintenance consumables for defective parts
2. not ensure the completeness of parts  
→ **unreasonable situations:**  
the parts of other defective products will be directly removed for replacement

### Return and replacement



Neglect inspection procedure

**Lack:**

1. specific process of return inspection
2. allocation of human resources

**Aftermath:**

non-standard operation of the warehouse keeper → lack of strict inspection

### OEM communication



Ineffective communication

**Status:**

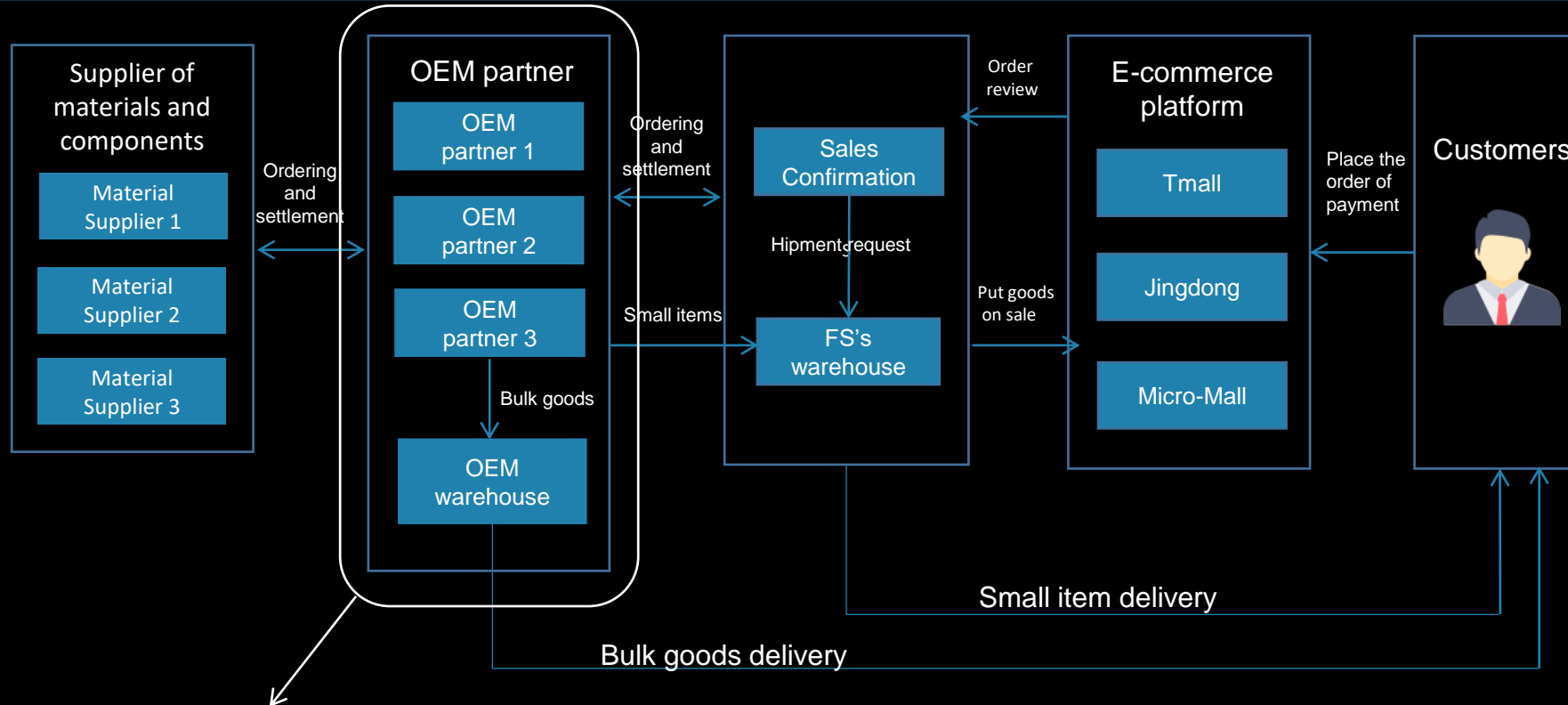
1. returned goods are **directly** sent back
2. **not accurately** followed up after-repair
3. Information communication is **not smooth** enough

Fun Sport

→ OEM

without follow up

# The OEM cannot be monitored in time and the data sharing is not timely, resulting in poor quality control.



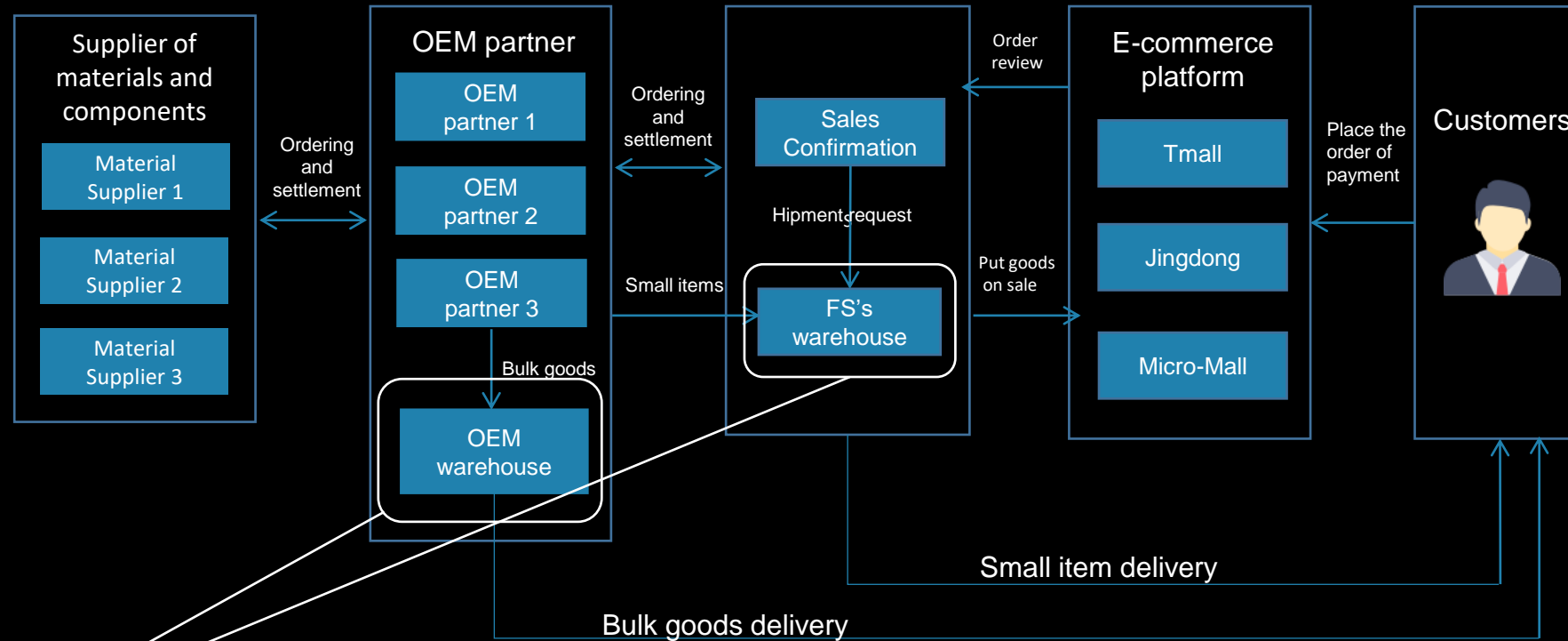
## Problems in the inventory management of the OEM:

i. The company cannot detect the OEM inventory in real time.

ii. The OEM warehouse data sharing update is not timely, and the information communication is not smooth.

iii. Inventory and product quality management control is not in place, affecting the enterprise reputation and gross profit

# The backward inventory system is reflected in the return and exchange, contract manufacturer, and process record solutions.



## Inventory system cannot meet business requirements:

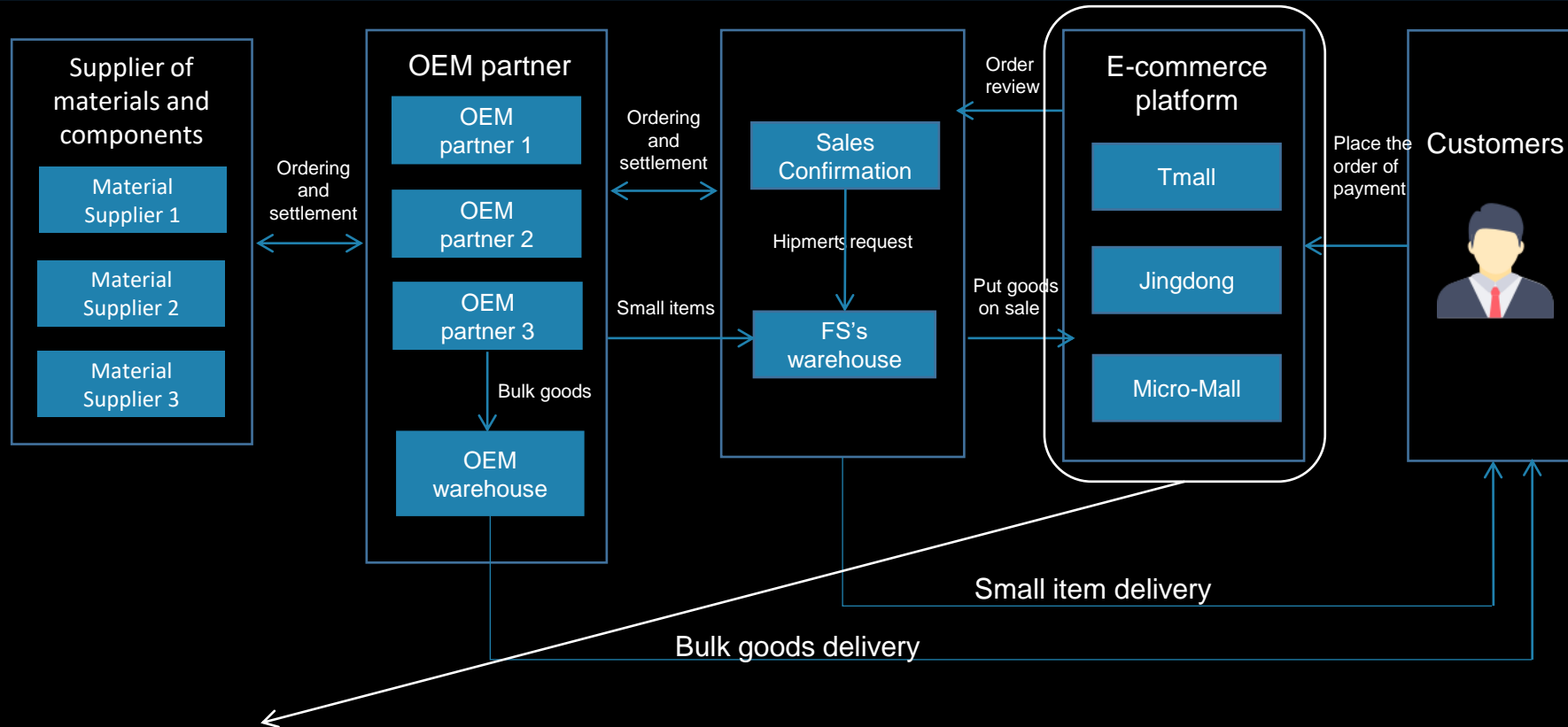
i. Unable to reflect the condition of repaired and defective products

ii. OEM data cannot be synchronized

iii. Lack of clear records of each process



**The number of goods on each platform and the actual inventory quantity cannot be updated and synchronized in real time, which can easily lead to oversold.**



**The platform's loading quantity is out of sync with the actual inventory quantity update:**

i. The current information management system is lagging behind.

ii. Lack of effective inventory synchronization.

iii. It is easy to oversold and lead to large fines.

An aerial night view of London, showing the city's lights and the River Thames. A large, dark blue diamond shape with a white border is centered over the image. Inside the diamond, the number '3' is displayed in a large, white, serif font. Below the number, the text 'Solution&strategies' is written in a smaller, white, sans-serif font. At the bottom of the diamond, the word 'NicyZ' is written in a white, italicized, sans-serif font. A thin white horizontal line is positioned just above the text 'Solution&strategies'.

3

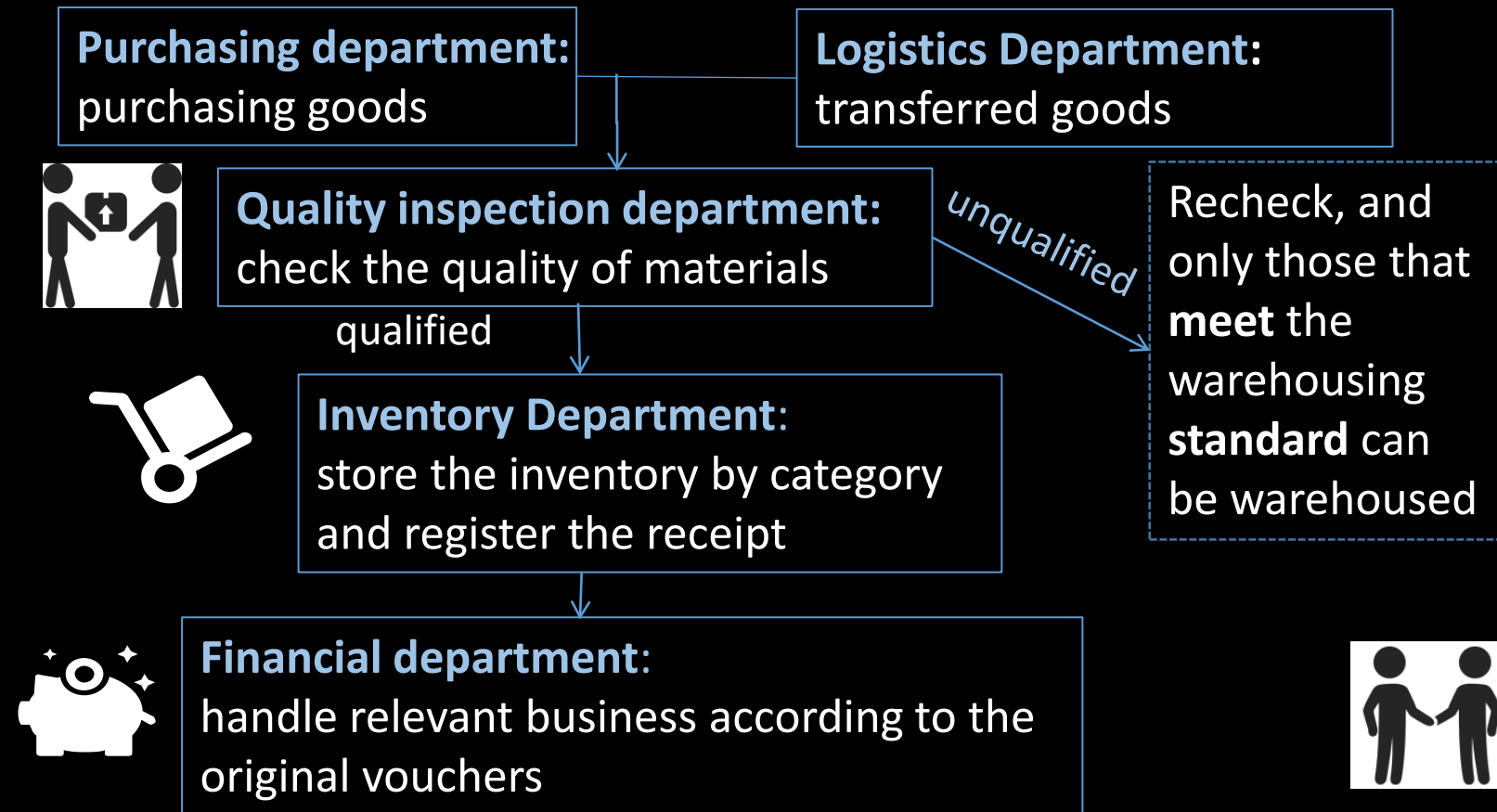
Solution&strategies

*NicyZ*



**Strategy 1 → The products shall be inspected before warehousing and defective products that meet the standard shall be warehoused.**

## Process—Stock in



## Insights:

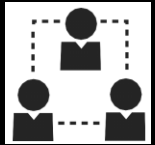
- Inspected before enter
- **Qualified goods** can be stored
- **Defective product**
  - 1.recheck
  - 2.find out the reasons
- Bookkeeping after receiving the certificate.



**Strategy 1** → Check the type and quantity of goods to be delivered according to the plan, and handle the inventory delivery registration after there is no error.

## Process——Stock out

**Inventory Department:**  
pick up goods



**Sales Department:**  
apply for delivery according to the sales order

**Quality inspection department:**  
conduct delivery inspection on inventory

**Logistics Department:**  
issue inventory

**Financial department:**  
handle relevant business according to the original vouchers



## Insights:

- **Check** the variety and quantity and handle the inventory delivery registration after there is **no error**.
- The delivery procedures can be handled only after **passing the inspection**.

# Strategy 2 → Avoid covering and crowding of goods stacking and negligence in handling unsalable and overstocked products.

## Storage method

### 1 Stereoscopic storage

- make full use of the storage space
- adopt three-dimensional storage.

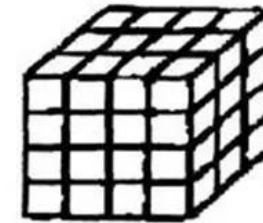


### 2 Stacking distance

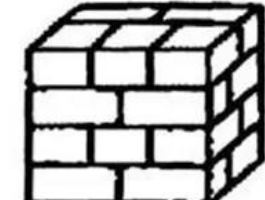
- Keep proper width and distance
- Improve the efficiency



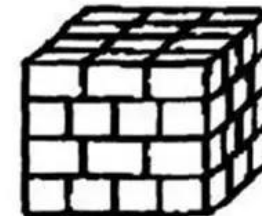
### 3 Stacking form



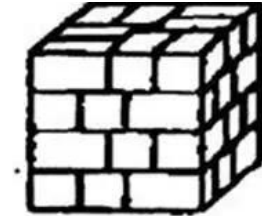
(a) Overlapping type



(b) Positive and negative interleaving



(c) Crisscross type



(d) Rotary interleaving

**Strategy 3 → Establish a sound inventory check system, and pay attention to the inconsistency between accounts and facts in the inventory check.**

# Stocktaking

1. Regular inventory + irregular inventory

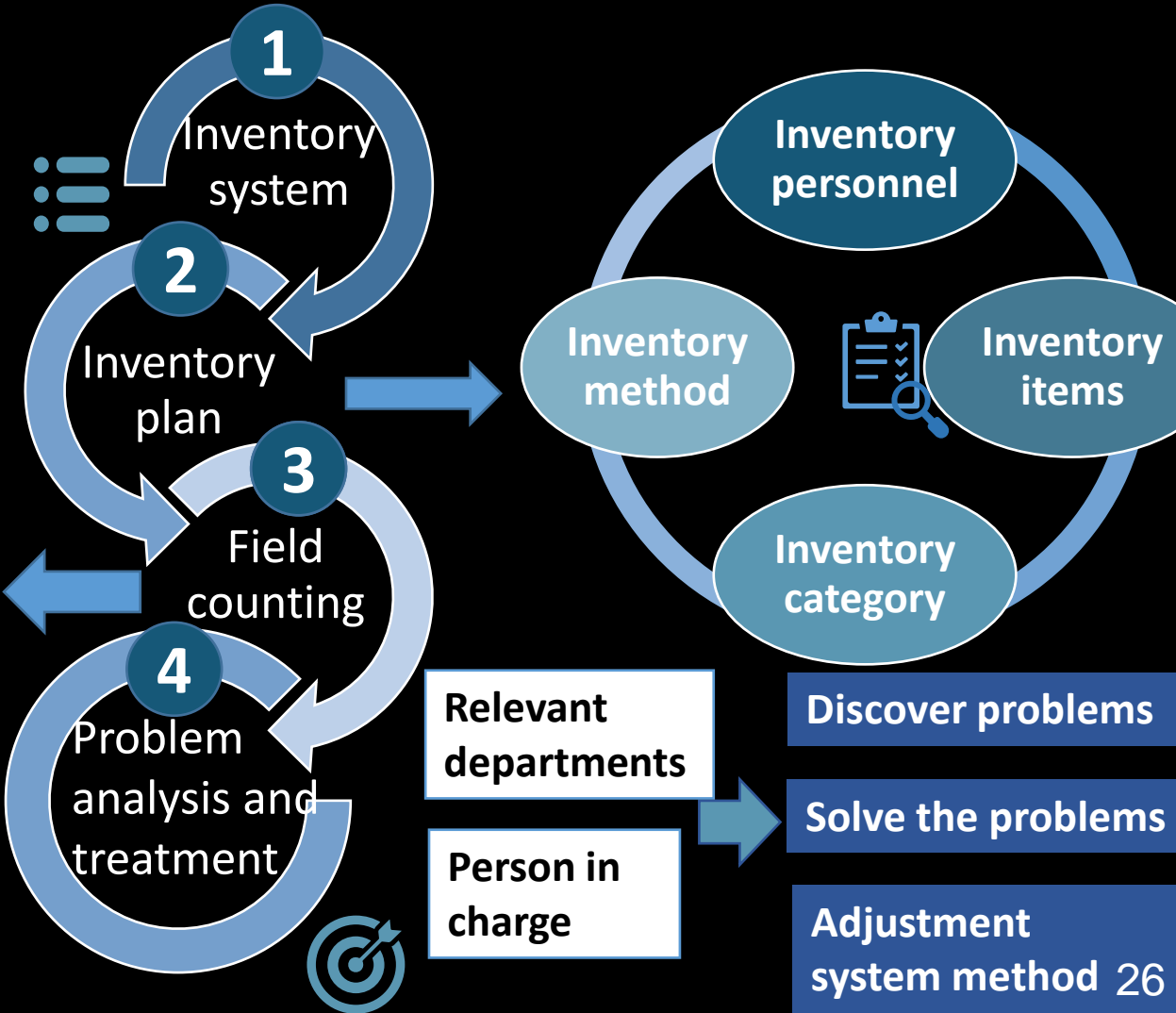
2. Jointly formulated by all departments

## Excel: (inventory counting details)

Number	Location	Spot check items		Sub Ledger registration		
		Inventory type	specification	Amount	Unit Price	Total

### Cont.

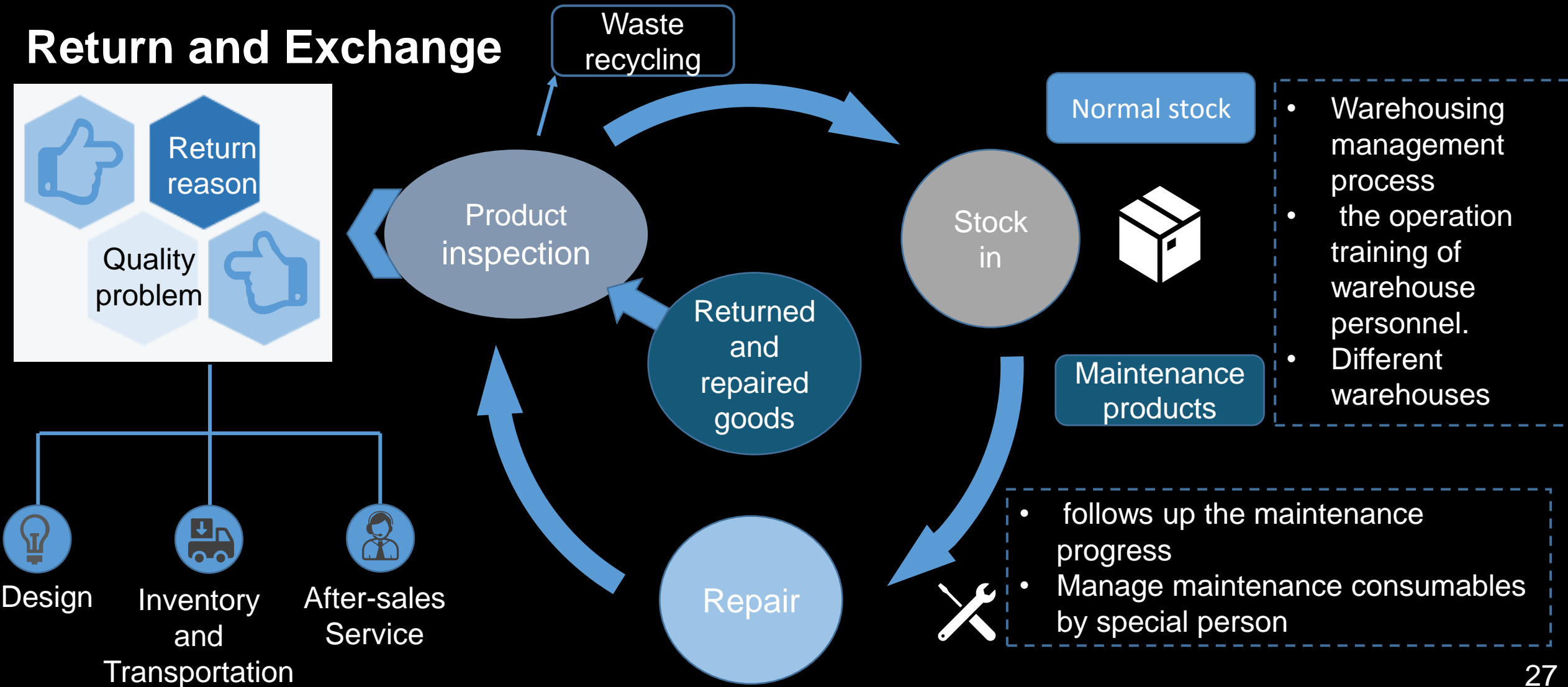
Inventory item list quantity	Actual inventory quantity	Difference	Reasons for discrepancy and responsibilities





**Strategies 4** ➡ Track the repair status in real time, check the returned repair one by one, and assign management personnel to repair consumables.

# Return and Exchange



## Overview of warehouse management issues and Strategies.

### Key Issues:

#### Stock in and out

Inconsistent accounts and facts

#### Storage method

Warehouse placement problems

#### Inventory mechanism

System implementation and control

#### Returned goods

Inadequate tracking and Untimely entry

### Key Strategies:

- Scientific management
- Clear and product warehousing specifications

- Stereoscopic storage
- Stacking distance
- Stacking form

- Multi-sectoral collaboration
- Detailed inventory plan
- Problem analysis and solving

- Product inspection
- Rigorous warehousing process
- Follow-up maintenance status

## Strategy 5 → With OEM >> Unify the voucher information with the OEM and formulate clear inventory management regulations.

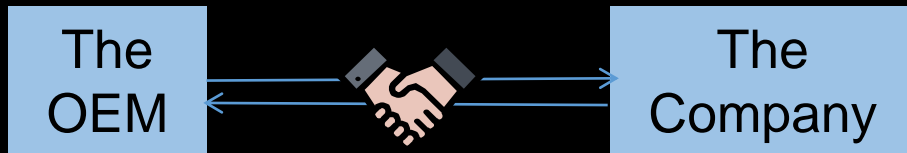
1

### Unified basis:

FS shall provide vouchers for the OEM (Original Equipment Manufacturer) on the unified basis for inventory warehousing and delivery.



Inventory change  
information and relevant  
basis of the day



Share the sales  
order quantity, return and exchange  
quantity and other information

2

### Check:

- The Company shall improve the inventory management regulations.
- At the same time, for the goods stored OEM, the inventory management regulations shall be determined in **consultation with the OEM**.

**Distribution**

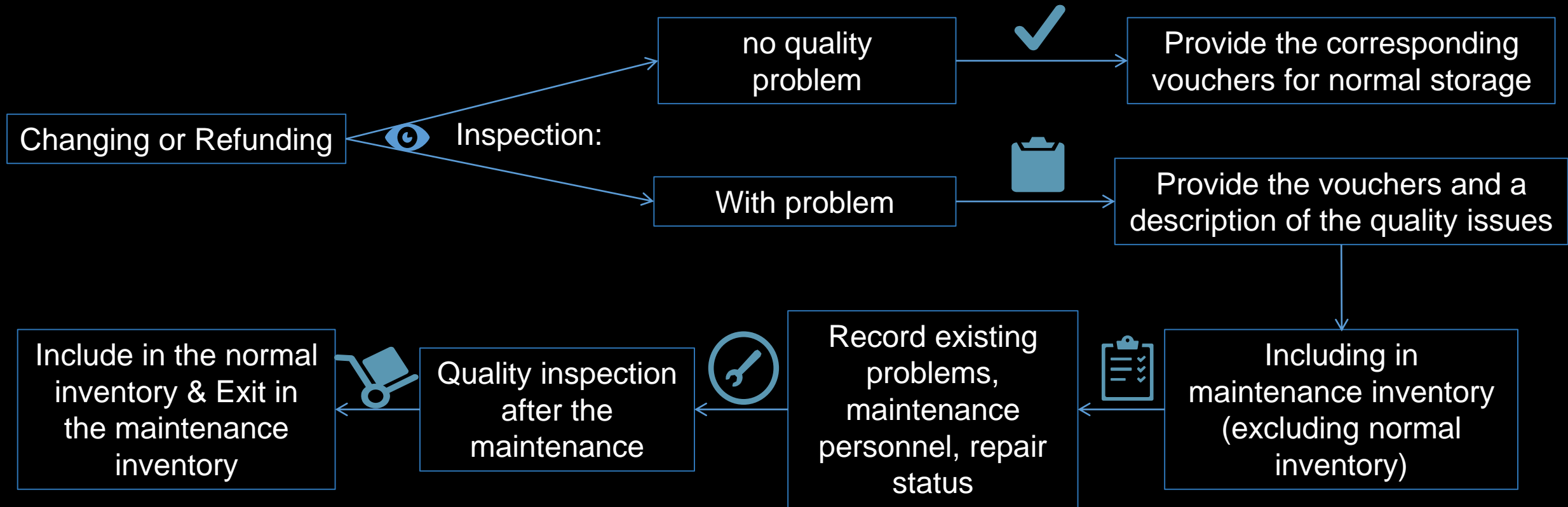


The inventory work is mainly responsible by the **Inventory Department**, assisted by the **accountant (Finance Department)**: Make plans to carry out inventory inventory of OEM regularly and prepare inventory form.

**PS: Improve the auxiliary:** irregular inventory inventory and inventory personnel rotation system

## Strategy 5 → With OEM >> Improve the return warehousing procedures, add personnel to allocate maintenance consumables, and eliminate problems.

### 3 System perfection: Set up the maintenance situation record section:





## Strategy 6 → With OEM >> Recommended supply chain inventory system:

### To OEM:

A more complete inventory management information system



- Take stock of OEM inventory and **confirm** quantity
- Accurately **follow up** the incoming **status** of returned and repaired goods

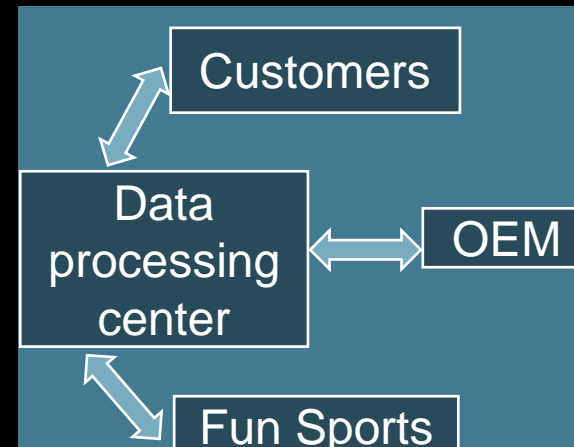
### We recommend:

Information is fed back to Fun Sports in time through **Supply Chain Inventory Management System**.

### Supply chain inventory management system

An information management system software used to dynamically track inventory status.

- Upstream and downstream in-depth cooperation to achieve information sharing
- Centralized information exchange mode




### The data center **can**:

immediately notify the collected inventory information to other enterprises in the supply chain  
**Result:** adjust inventory and production in a unified and timely manner.

## Strategy 7 → with OEM >> Strengthen the management's internal control and pay attention to the product quality control produced by the OEM.

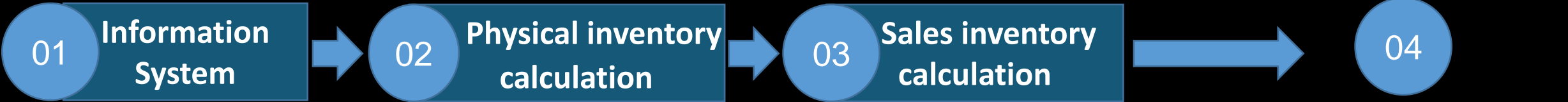
- The company's senior managers strengthen the importance of **product quality control and internal control system**.
- Strengthen the control of inventory product quality.

**The company and OEM**   
agree on various production standards  
strengthen quality control  
reduce product workmanship defects



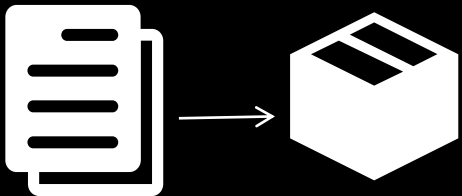
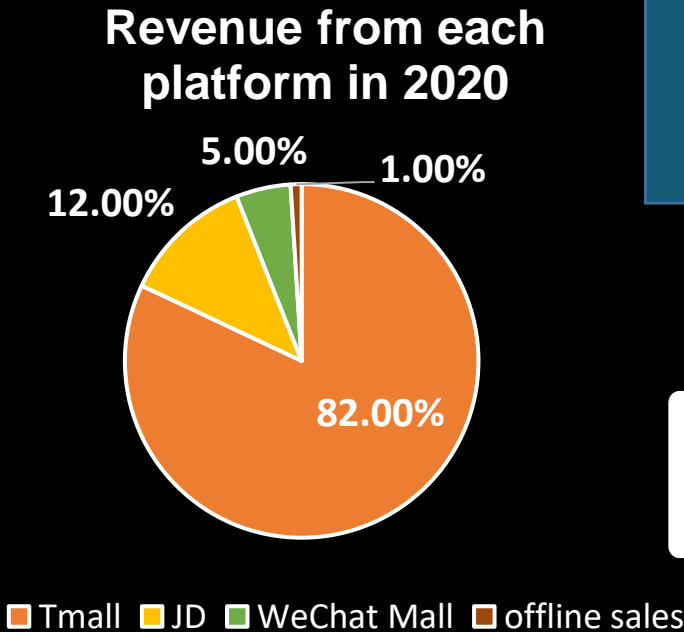
Strategy 8 →Optimize the management information system and reasonably set up sales inventory.

- 1 Optimize the management information system: Centralize the inventory information of all warehouses into the information system, then calculate the available inventory and synchronize the sales inventory to the sales platform.



**Available Inventory = Physical Inventory - Pre Occupied Inventory - Locked Inventory**

- 2 Reasonably set up sales inventory:
- In order to prevent **overselling**, inventory settings are more than **100% in principle**, but according to actual business needs, **virtual inventory** can be reasonably set, for example, companies can add additional orders depending on the situation to **ensure maximum sales**.



## Strategy 8 → Ensure the synchronization of sales inventory information on each platform.

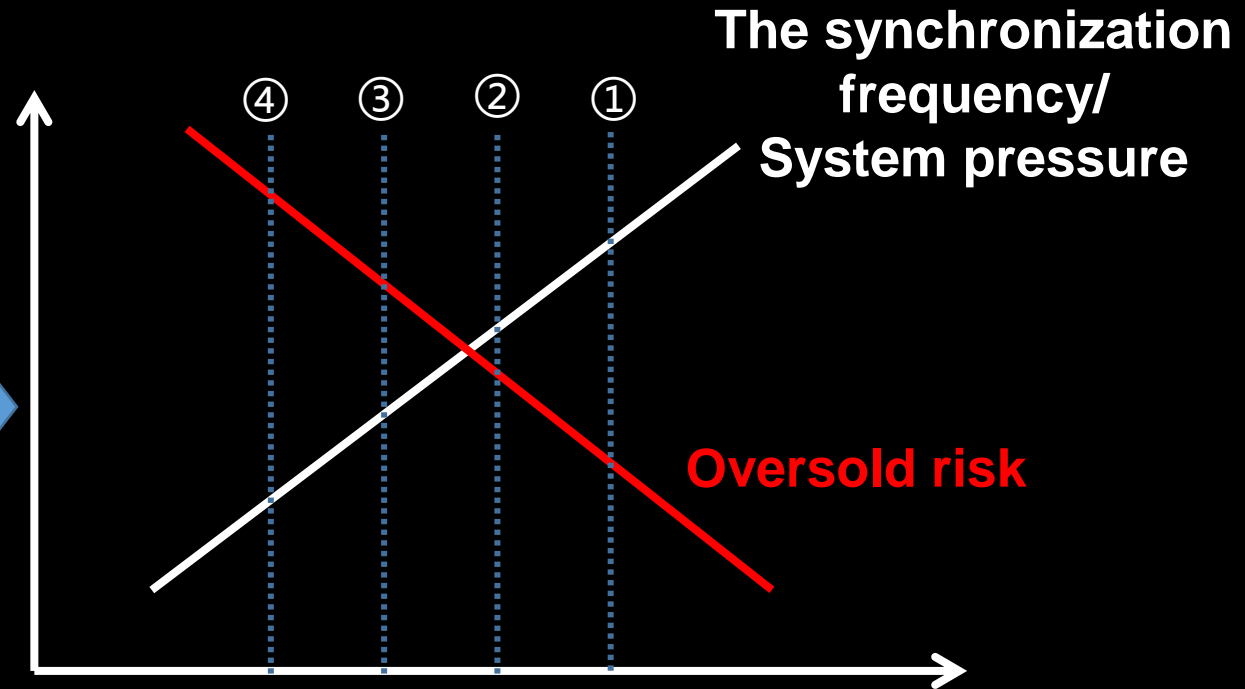
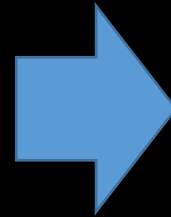
### 3 Sales inventory synchronization

1.Synchronize whenever inventory changes

2.Periodic synchronization

3.Synchronization when below the lower threshold

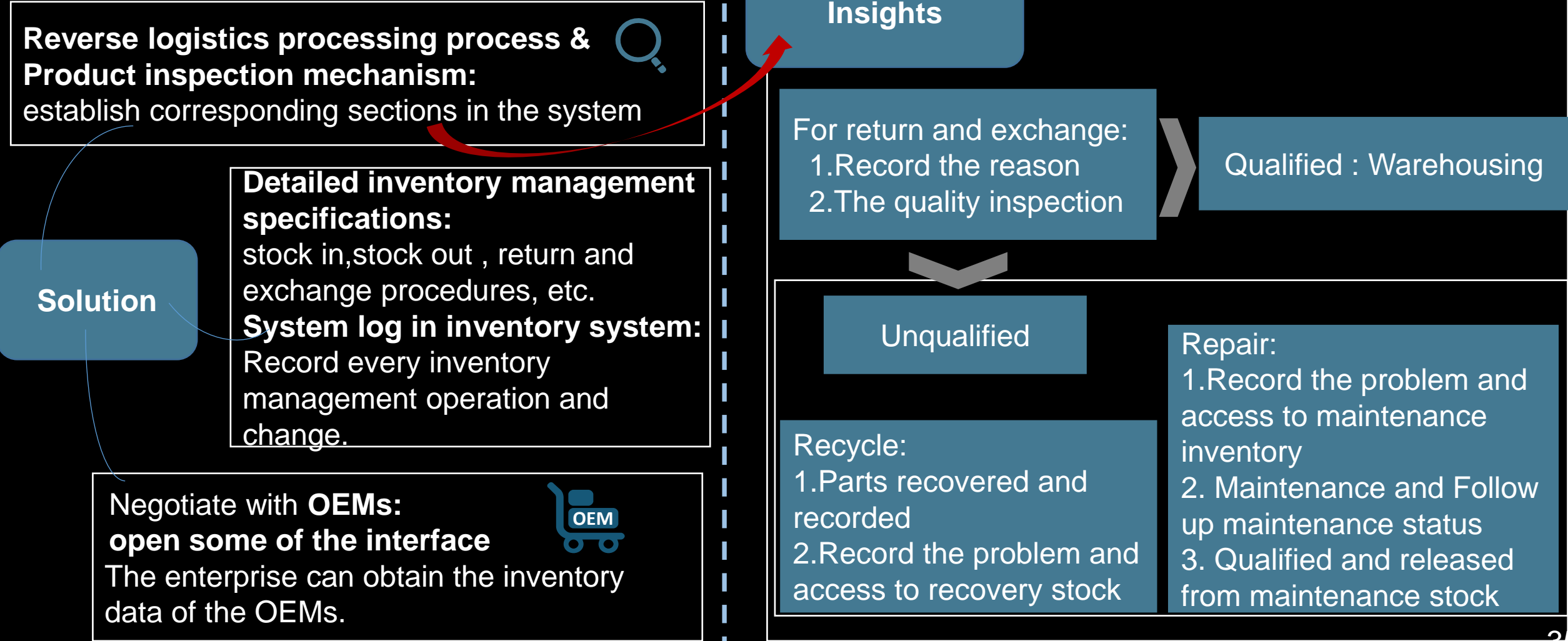
4.Pause synchronization



Considering system pressure and inventory accuracy → Way 2 or 3 is better suited for Fun Sports.



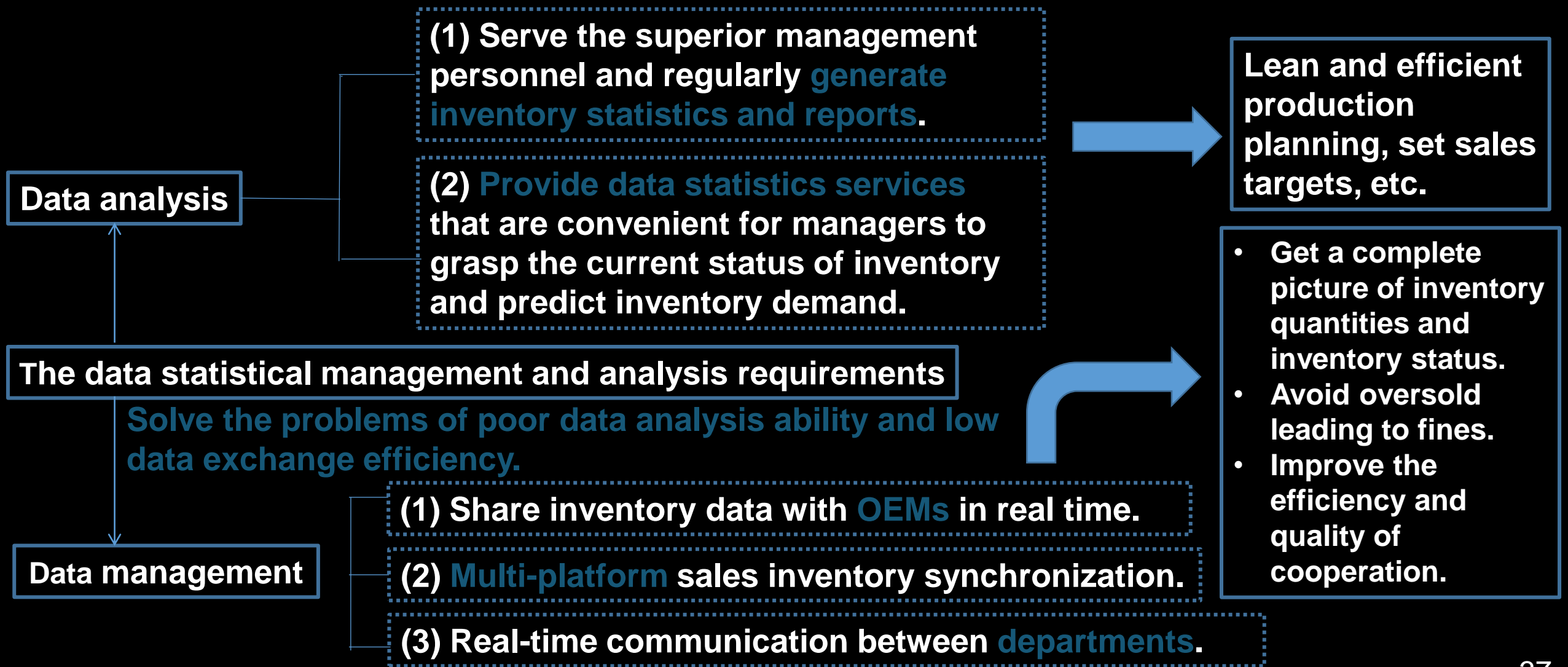
**Strategy 9 → Establish a complete return and exchange process mechanism & Strive for the contract manufacturer information interface**



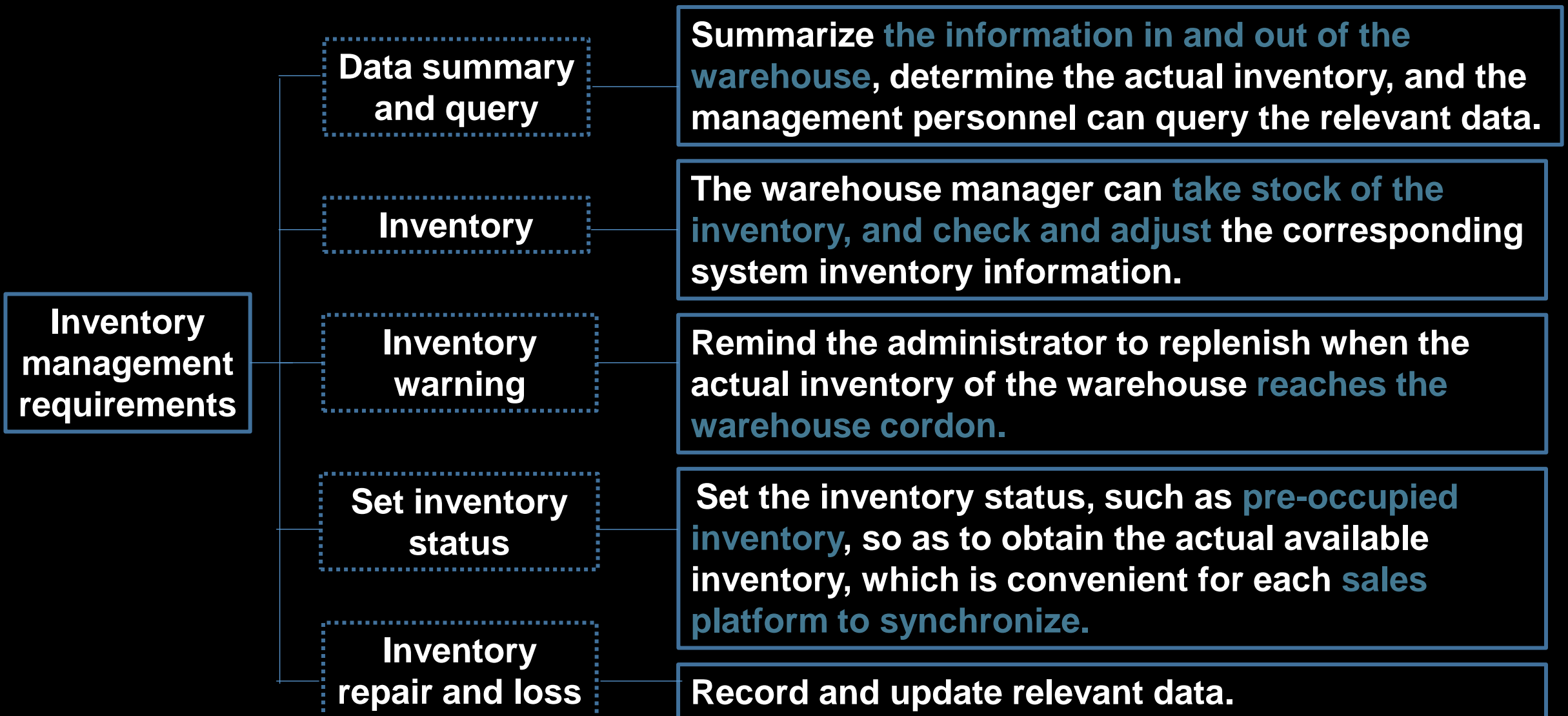
**Requirements → Basic system function : Management of stock in, management of stock out, basic data management**

Management of stock in	Management of stock out	Basic data management
<p><b>It needs to be able to :</b> complete the warehousing management process.</p> <p><b>Projects:</b></p> <ul style="list-style-type: none"><li>• Serial number</li><li>• scan the code</li><li>• Product basic inspection</li><li>• Registration information</li><li>• Arrange the location</li><li>• Maintenance operations</li></ul>	<p><b>It needs to be able to:</b> Complete the process of warehouse management. Improve the information sharing degree of inventory status.</p> <p><b>Projects:</b></p> <ul style="list-style-type: none"><li>• Scan the code</li><li>• Product basic check</li><li>• Registration</li><li>• ...</li></ul>	<p><b>The main purpose</b> is to solve the process operation in the non-standard and tedious problems. It plays an auxiliary role in the <b>development of various processes.</b></p> <p><b>Projects:</b></p> <ul style="list-style-type: none"><li>• <b>Add, delete, change, check</b> the basic data in the database</li><li>• Information management of <b>the warehouse, inventory, enterprise staff</b></li></ul>

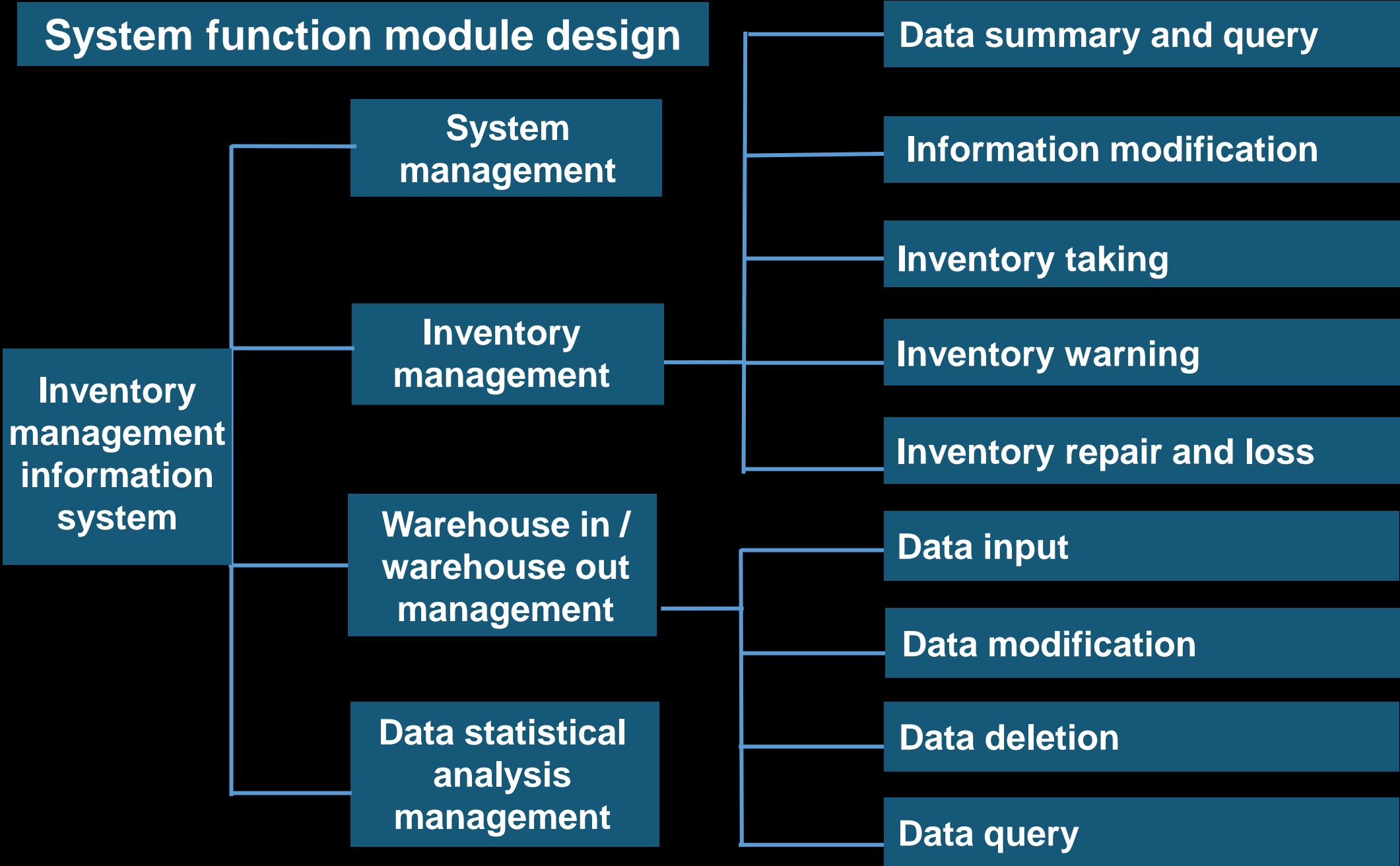
# Requirements → The data statistical management and analysis requirements

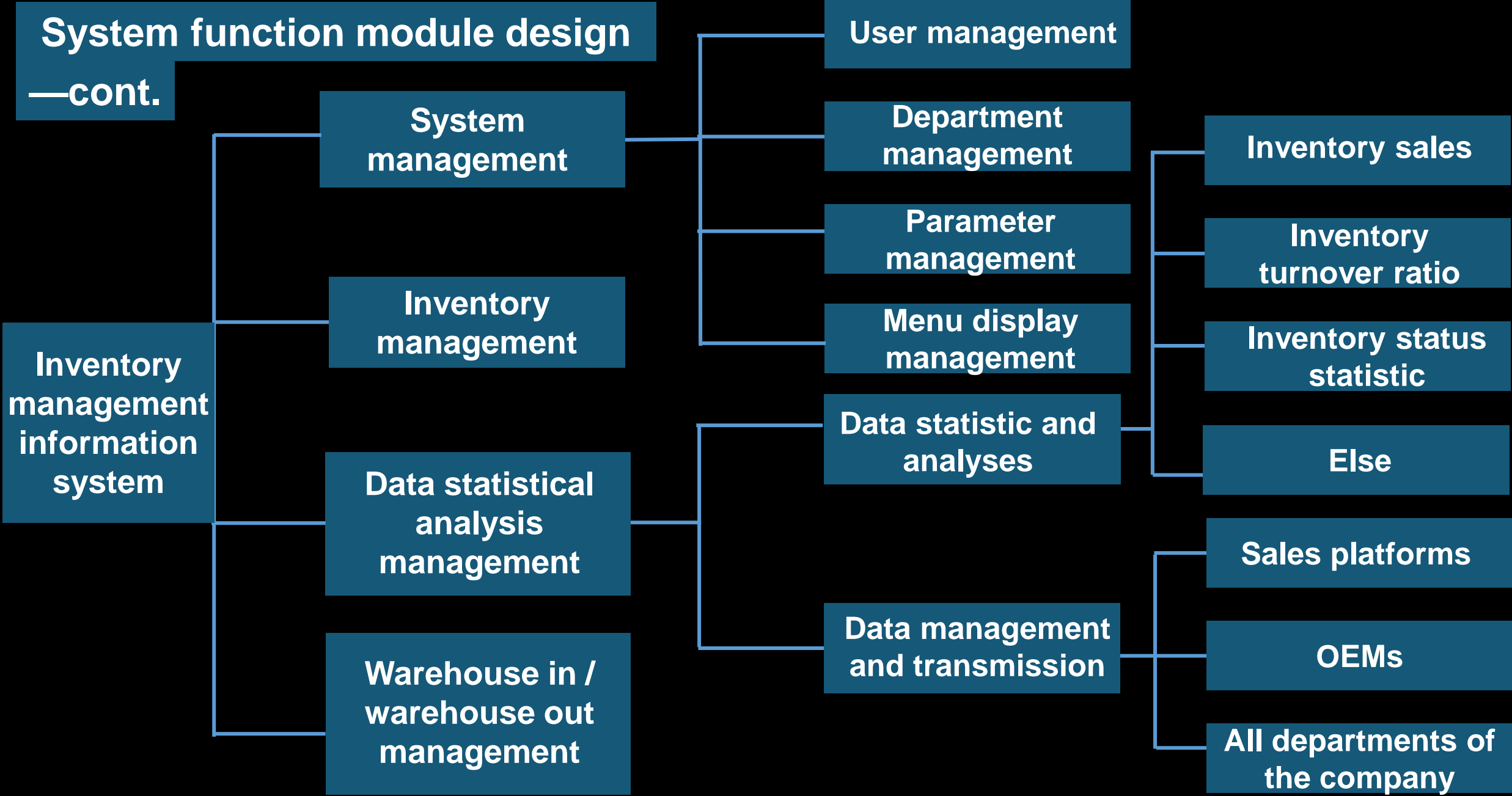


## Requirements → Inventory management requirements

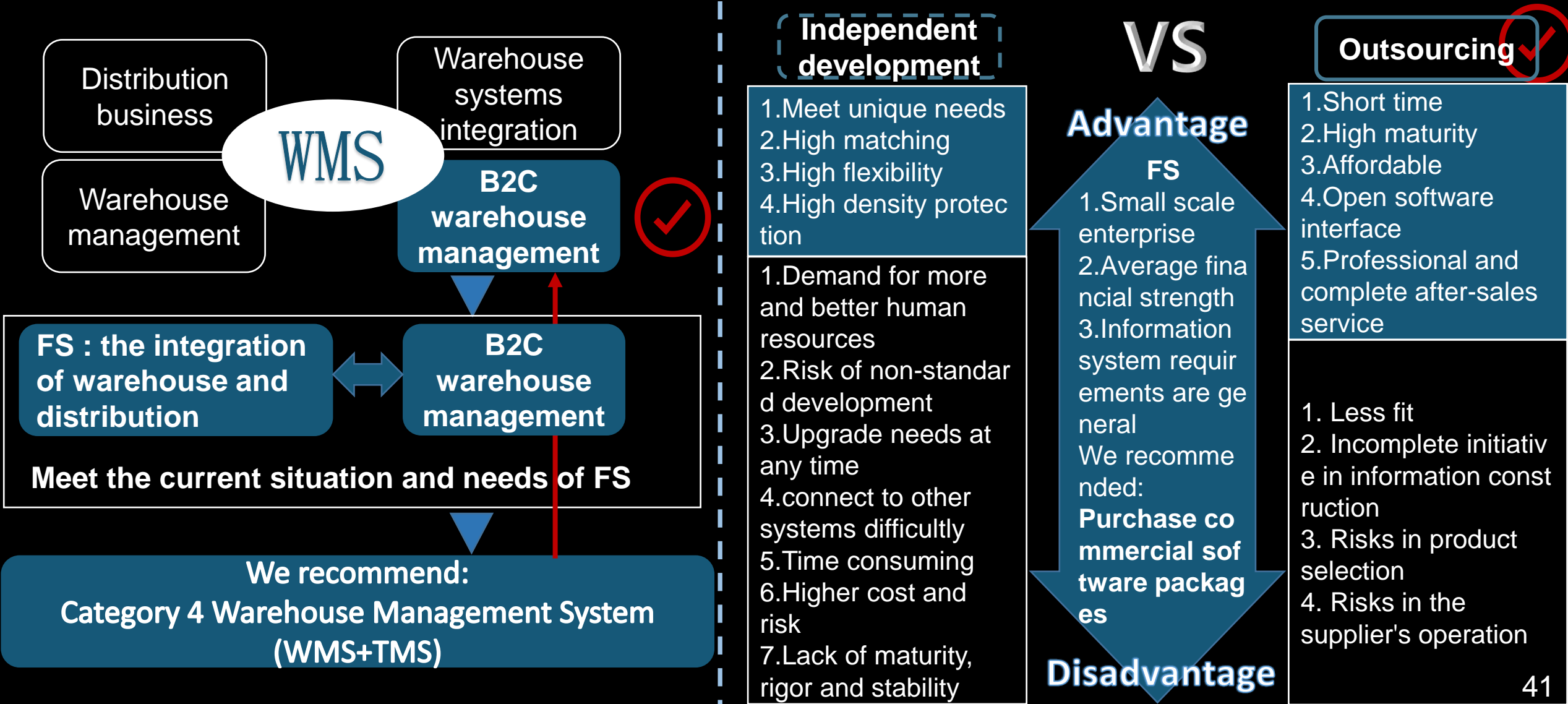




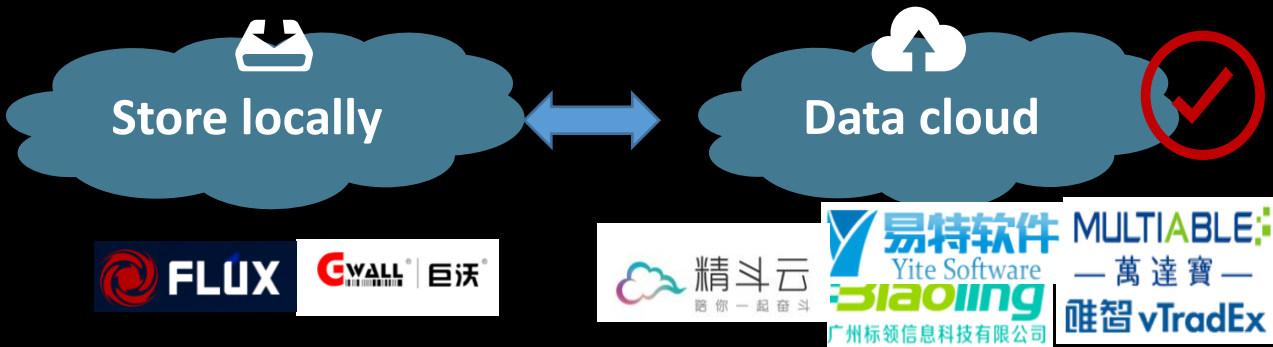




Select the purchased B2C inventory management system for it's "best positioned"



# Choose JingCloud, the cloud system for it's "best positioned".



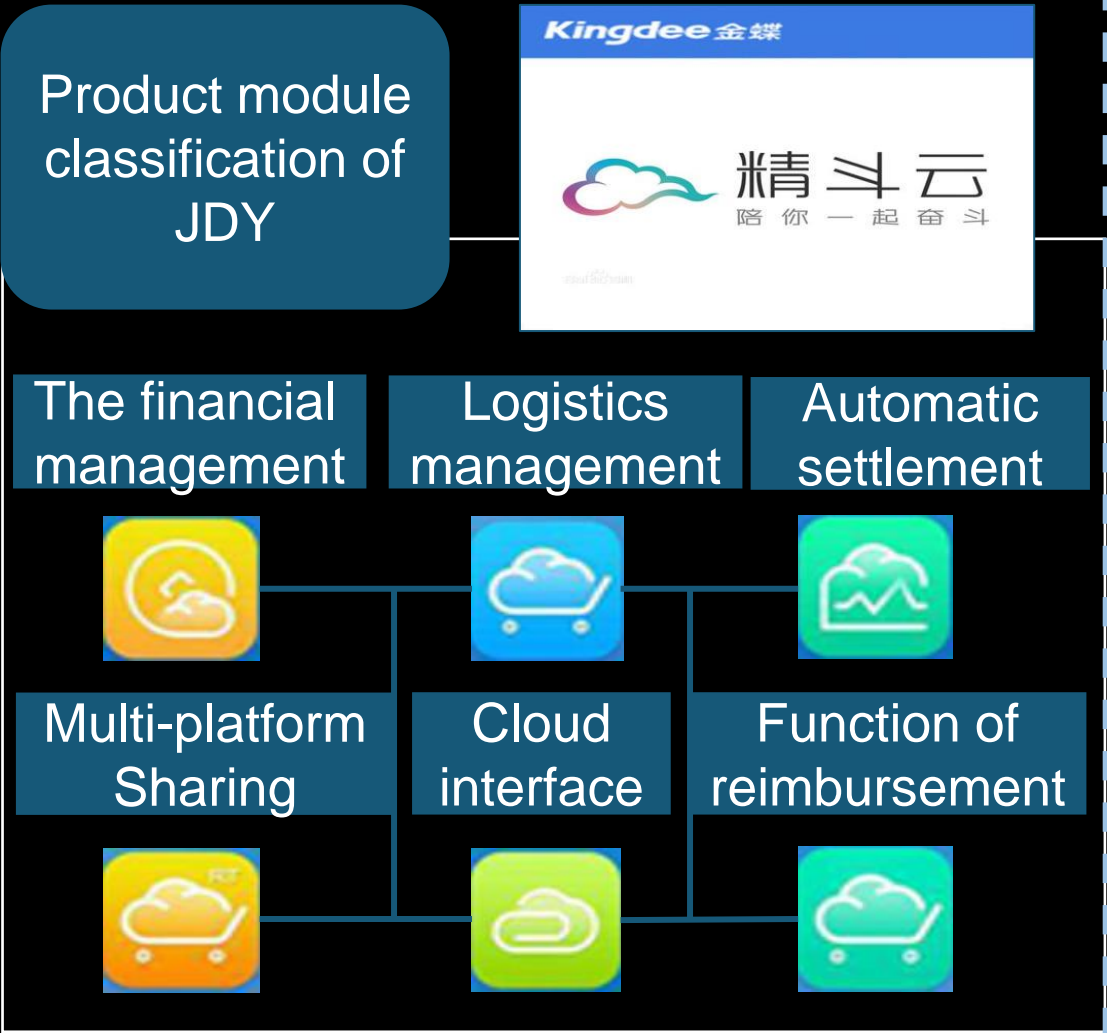
- Data is stored locally, making it more secure
- **High cost**
- More appropriate service
- Suitable for **customized** services of large-scale enterprises
- It's **not cost-effective** for start-ups like FS

- Data stored in the cloud , making it more convenient.
- **Low cost**
- The customer industry covers a **wide range** of fields and is **universal**
- Meet the functional needs of start-ups
- **cost-effective**

<div><div>JDY</div><div></div></div> <div><div>Traditional software</div><div></div></div>	
According to the need to pay	Custom development or purchase
No download or installation required	Network and install the server and client
Automatic Cloud Upgrade	The server and client are upgraded separately
Cross-platform use through the browser	Only be used by installation under WINDOWS
Renew purchase or terminate at any time	System waste



The bucket cloud function is in line with the needs of interesting sports.



Characteristics	Specific function
Commodity <b>characteristics</b> management	Add auxiliary attributes according to the <b>needs</b> of the industry
Multiterminal <b>synchronization</b>	Real-time synchronization: web page, APP, enterprise WeChat
Master orders <b>in time</b>	Assist <b>purchasing</b> & reduce inventory <b>overhang</b>
Customer <b>churn warning</b>	Grasp the operation situation of each platform
<b>Automatically</b> generate business documents	Check for accuracy
Standardize <b>the process</b> & strengthen internal <b>control</b>	<b>Multilevel approval</b> : perform boundary point operation confirmation
Various management <b>systems</b> & multiple <b>interfaces</b>	Convenient : <b>Expand</b> system functions & <b>Share</b> data



4

Expected results

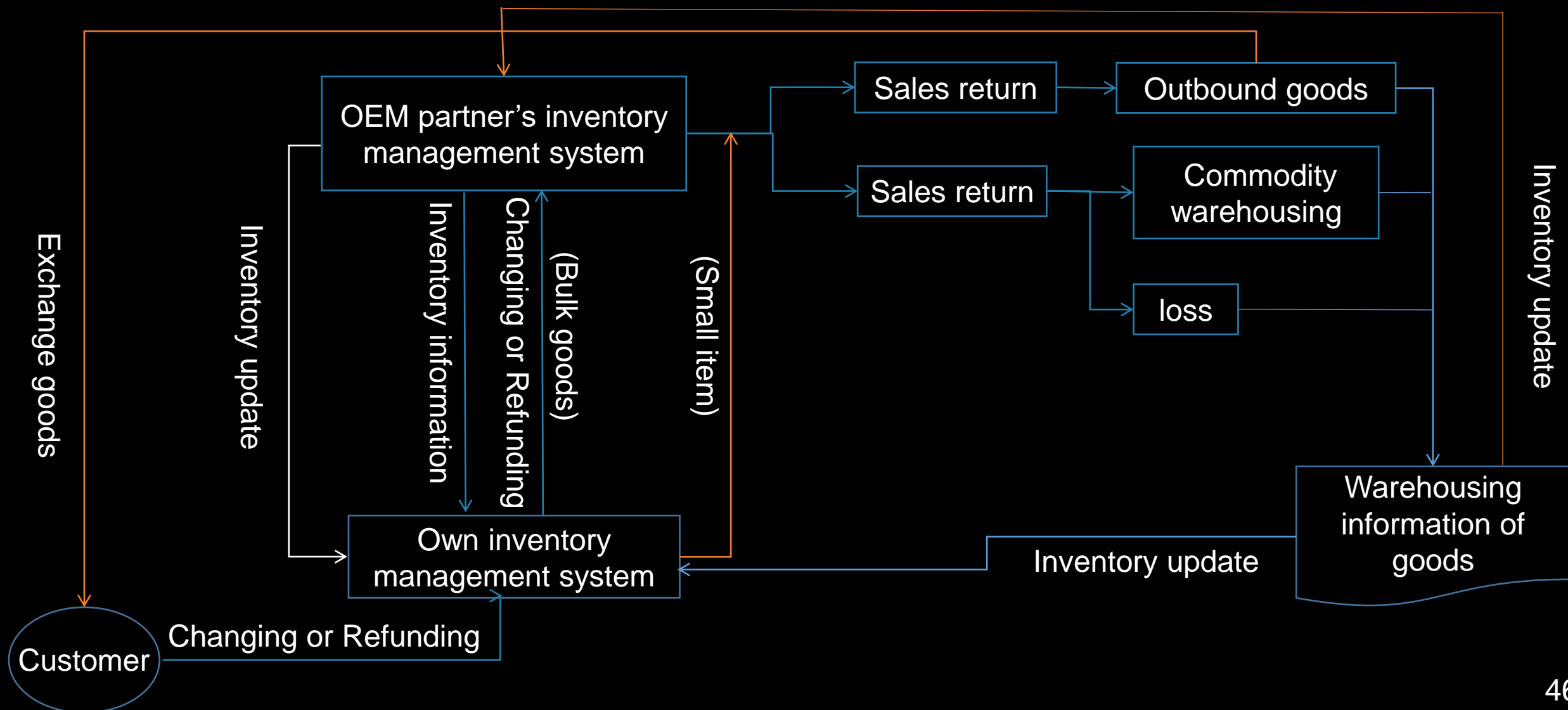
*NicyZ*



**FS's improved inventory management business process - warehousing, inventory management and inventory integrated version.**



# FS's improved inventory management business process - return and exchange, with OEM information exchange.





Five years roadmap—Customized into FS according to research and analysis

Time Target	Year 2022		Year 2023		Year 2024		Year 2025		Year 2026		Priority
	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	
Warehouse management											
•Stock in & out											★★★★
•Storage											★★★
•Inventory mechanism											★★★★★
•Returned goods											★★★★
Information system											
•Research &purchase											★★★★
•Optimize & upgrade											★★★
•Whether to replace											★★
With the OEM											
•Information sharing											★★★★
•Quality control											★★★★★

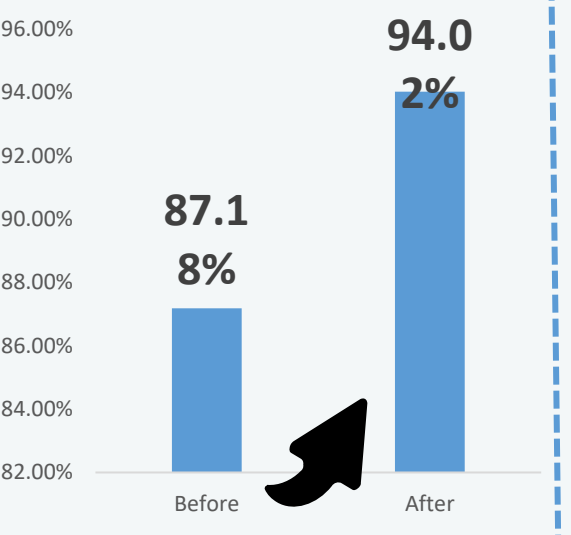
Given more time

- Get through the overall information system
- including customer insight system, financial system and risk internal control system

# Appendix -- Benefit reference of warehouse management information system of R&D Co.A

## Warehousing capacity:

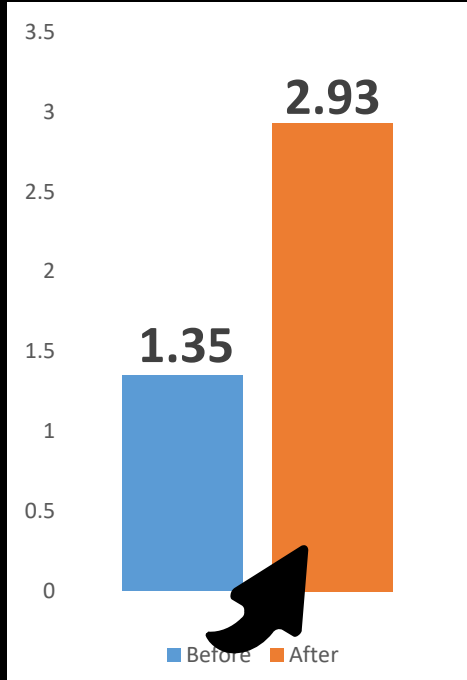
Matching ratio between account and reality



7.85%

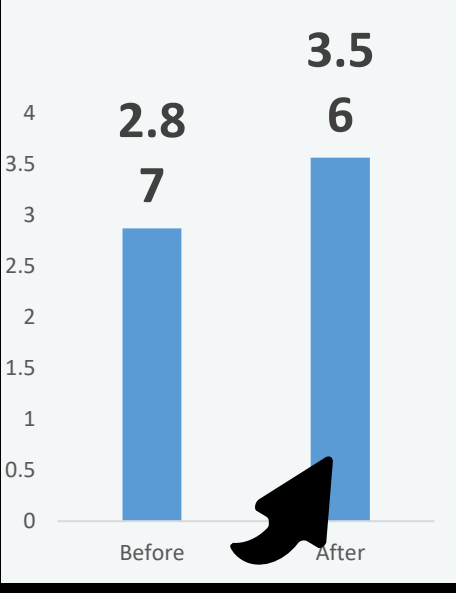
## Management level evaluation:

Information sharing degree



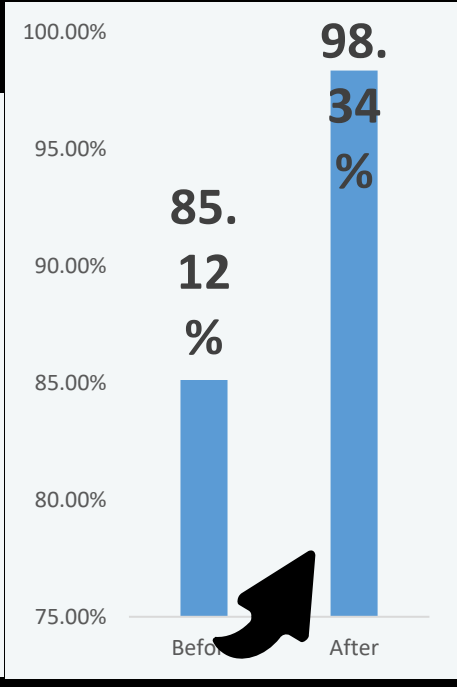
117.04%

Operation specification degree



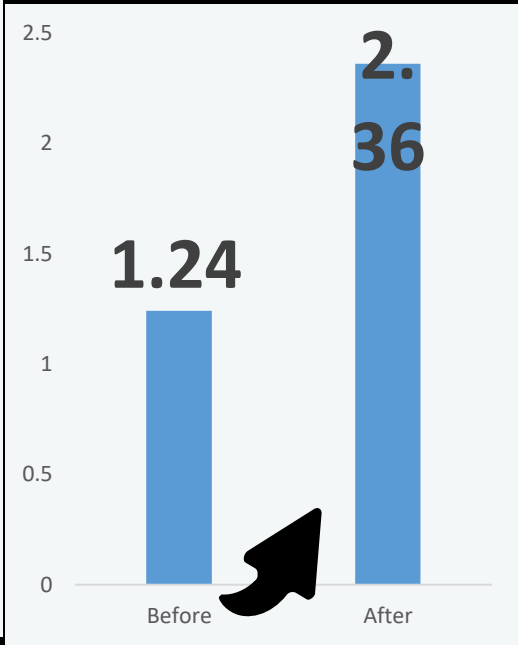
24.04%

Customer satisfaction



15.53%

Management decision support degree

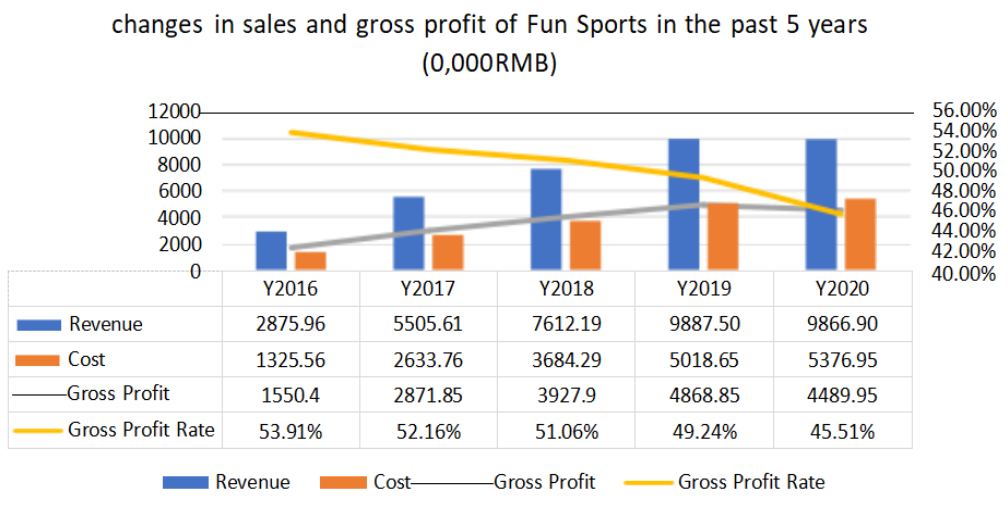


90.32%

# Appendix -- Benefits of informatization upgrading to enterprises & Combined with the actual financial situation

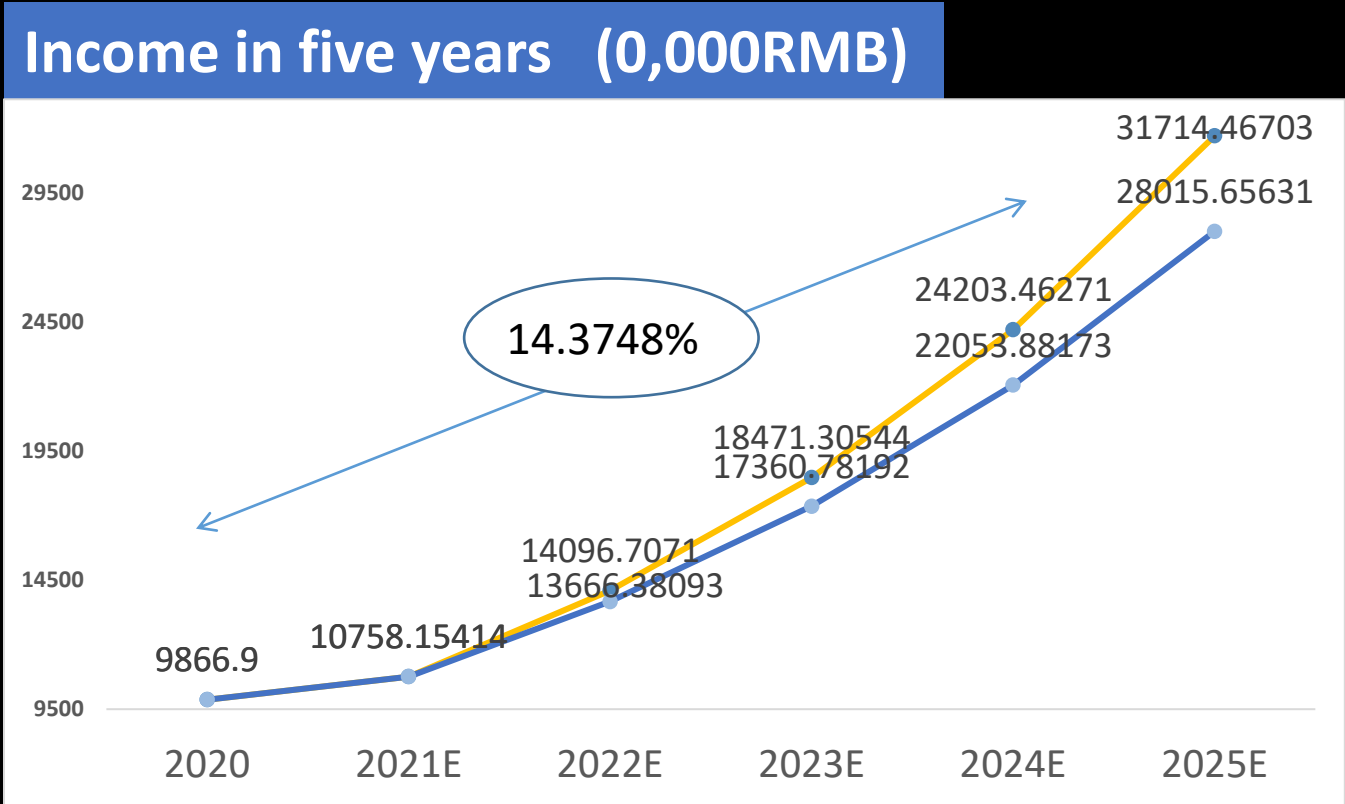
## Review (before)

Changes in sales and gross profit of Fun Sports in the past 5 years (0,000RMB)



In 2020, the gross profit margin decreased significantly!

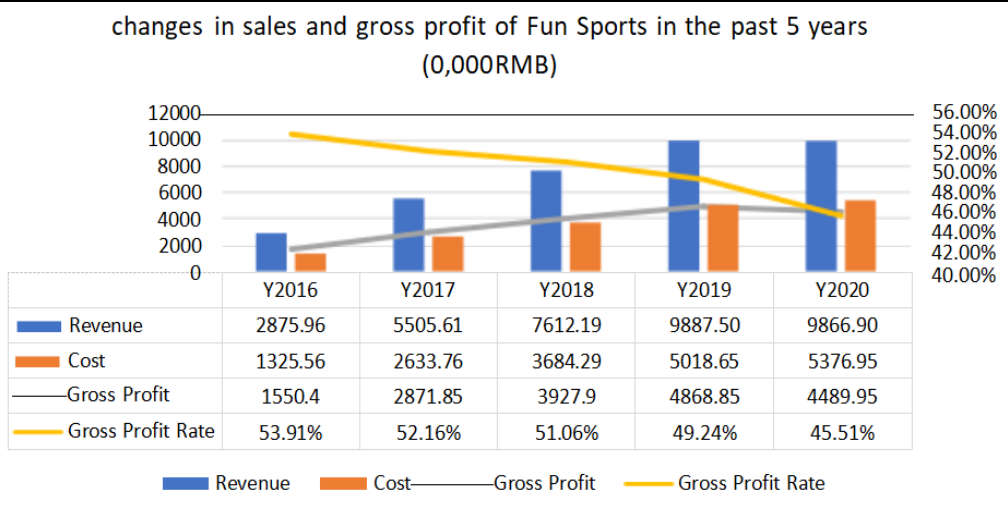
## Utility prediction of information investment on FS (after)



# Appendix -- Benefits of informatization upgrading to enterprises & Combined with the actual financial situation

## Review (before)

Changes in sales and gross profit of Fun Sports in the past 5 years (0,000RMB)

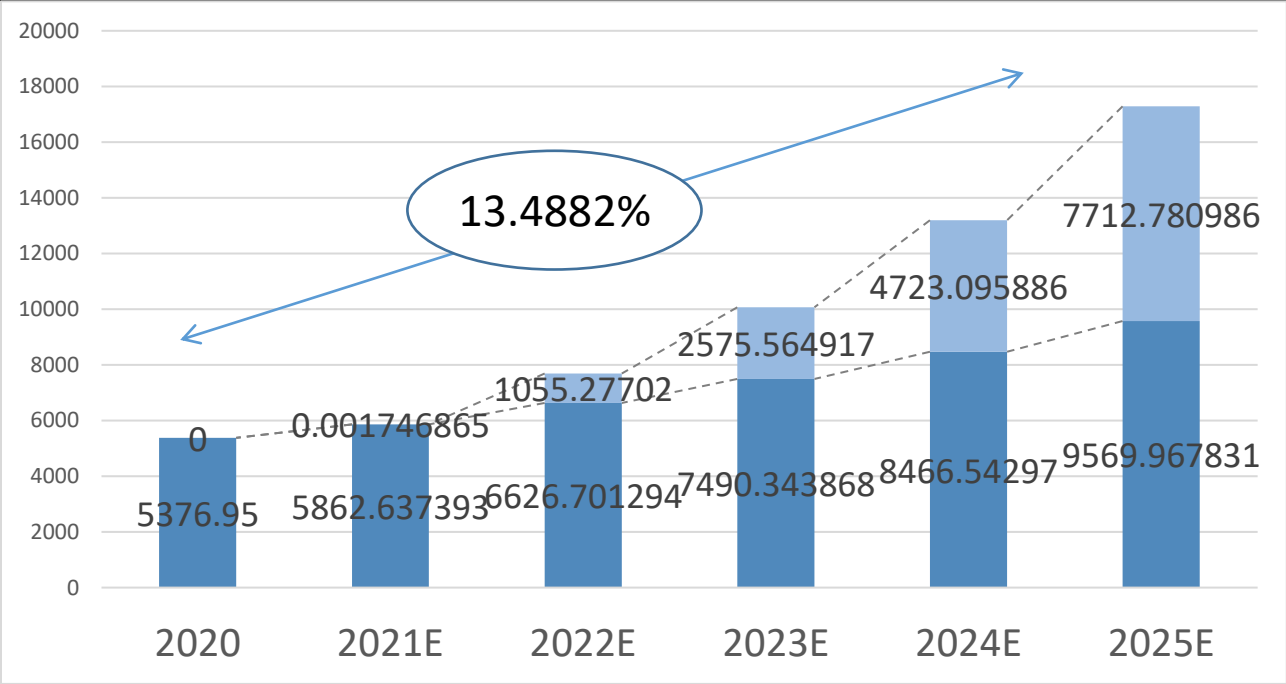


In 2020, the gross profit margin decreased significantly!

Resource: Chen Lina Research on investment decision model of enterprise informatization project from the perspective of cloud service [D] Capital University of economics and trade, 2016

## Utility prediction of information investment on FS (after)

### Cost&cost reduction in five years (0,000RMB)





# Summary ➡ Our report not only gives the measures to strengthen inventory management, but also gives effective suggestions for enterprise information system construction

Current situation & problem	Key strategies & initiative	Risk	Mitigation
<ul style="list-style-type: none"> <li>➤ Board domestic market &amp; e-commerce</li> <li>➤ Exposed original problems</li> <li>➤ Lack of inventory system management</li> <li>➤ The information system can't meet the demand</li> </ul>	<ul style="list-style-type: none"> <li>➤ Optimize business process</li> <li>➤ Strengthen cooperation with the OEM</li> <li>➤ Improve inventory management ability</li> <li>➤ Update the information management system</li> </ul>	<ul style="list-style-type: none"> <li>➤ financial risk</li> <li>➤ operating risk</li> <li>➤ Personnel risk</li> </ul>	<ul style="list-style-type: none"> <li>➤ complete plan</li> <li>➤ Internal control</li> <li>➤ information management</li> </ul>
<p><b>Current market situation</b></p> <ul style="list-style-type: none"> <li>• Policy support</li> <li>• Expansion of market scale</li> <li>• The rise of e-commerce channels</li> </ul>	<p><b>Enhance inventory management</b></p> <ul style="list-style-type: none"> <li>• Formulate warehousing specifications and strengthen the training of warehouse management personnel.</li> <li>• Collecting, checking and storing to prevent unsalable sales.</li> <li>• Strengthen multi-sectoral cooperation</li> <li>• Scientific inventory, special person in charge, solving omissions.</li> <li>• Follow up the maintenance status in real time.</li> </ul>	<p><b>financial risk</b></p> <ul style="list-style-type: none"> <li>• Cash Deficit</li> <li>• Mistakes in asset management</li> </ul>	<ul style="list-style-type: none"> <li>• Rigorous risk-benefit estimation shall be made before the implementation of the scheme.</li> </ul>
<p><b>Inventory management problem</b></p> <ul style="list-style-type: none"> <li>• Unable to check the OEM's inventory and product quality</li> <li>• Lack of systematic flow in and out of warehouse.</li> <li>• Improper storage of goods</li> <li>• Imperfect inventory system</li> <li>• Improper management of returned and repaired products</li> </ul>	<p><b>Information management system (IMS)</b></p> <ul style="list-style-type: none"> <li>• Establish a central inventory system</li> <li>• Establish system interface and share real-time data.</li> <li>• Constructing departmental communication channels</li> <li>• Set inventory alert</li> <li>• Establish inventory information records.</li> <li>• Strategic decision support</li> </ul>	<p><b>operating risk</b></p> <ul style="list-style-type: none"> <li>• Error in internal management</li> <li>• Internal self-stealing</li> <li>• System failure or malicious attack</li> </ul>	<ul style="list-style-type: none"> <li>• Set up before breaking, to ensure the normal operation of enterprises.</li> </ul>
<p><b>Information management system (IMS)</b></p> <ul style="list-style-type: none"> <li>• Multi-platform inventory cannot be updated synchronously.</li> <li>• The data between the enterprise and the OEM can't be shared instantly.</li> <li>• The current inventory system is difficult to meet the needs of warehouse management.</li> </ul>		<p><b>Personnel risk</b></p> <ul style="list-style-type: none"> <li>• Improper staffing</li> <li>• Unable to adapt to the position</li> </ul>	<ul style="list-style-type: none"> <li>• Formulate supervision system</li> <li>• Clear job requirements</li> <li>• Establish network protection to ensure data and system security</li> </ul>