

# **Introduction to Longyou Yili Dairy Co., Ltd. under Yili Group.**



**Address: Number 3, Qinshan Road, North Development Zone,  
Longyou County, Quzhou City, Zhejiang Province.**



## Contents

<b>Chapter 1 Introduction to Yili Group &amp; Longyou Company.....</b>	<b>3</b>
1.1 Introduction to Yili Group .....	3
1.2 An overview of Longyou Company.....	3
1.2.1 A brief introduction to Longyou Company.....	3
1.2.2 Organizational Structure.....	4
1.2.3 Products & Equipment.....	5
1.2.4 Technique.....	6
1.2.5 Equipment.....	6
1.2.6 Staff Make-up.....	6
<b>Chapter 2 TPM: a milestone on our journey to excellence.....</b>	<b>7</b>
2.1 Reasons for introducing TPM.....	7
2.2 Development of TPM in Longyou.....	8
<b>Chapter 3 TPM's effects.....</b>	<b>8</b>
3.1 Tangible Growth in Operation Performance.....	8
3.2 Intangible Results.....	9
<b>Chapter 4 The Key to TPM's Success in our Factory.....</b>	<b>9</b>
<b>Chapter 5 Achievements.....</b>	<b>10</b>

## Chapter 1 Introduction to Yili Group & Longyou Company

### 1.1 Introduction to Yili Group

Yili Group finds itself among the top echelon of the global dairy industry, and it is the top leader of Asian dairy industry for a second year. As the largest dairy enterprise in China with the most comprehensive product categories, Yili Group has scored in 2021 a total business revenue of over 110.595 billion yuan, making it the first dairy enterprise ever to have a revenue over 100 billion yuan. Yili Group has 5 business divisions, including liquid milk division and milk powder division, and Longyou Yili Dairy Co., Ltd. stands as one of the subsidiaries of liquid milk division (see Figure 1.1)

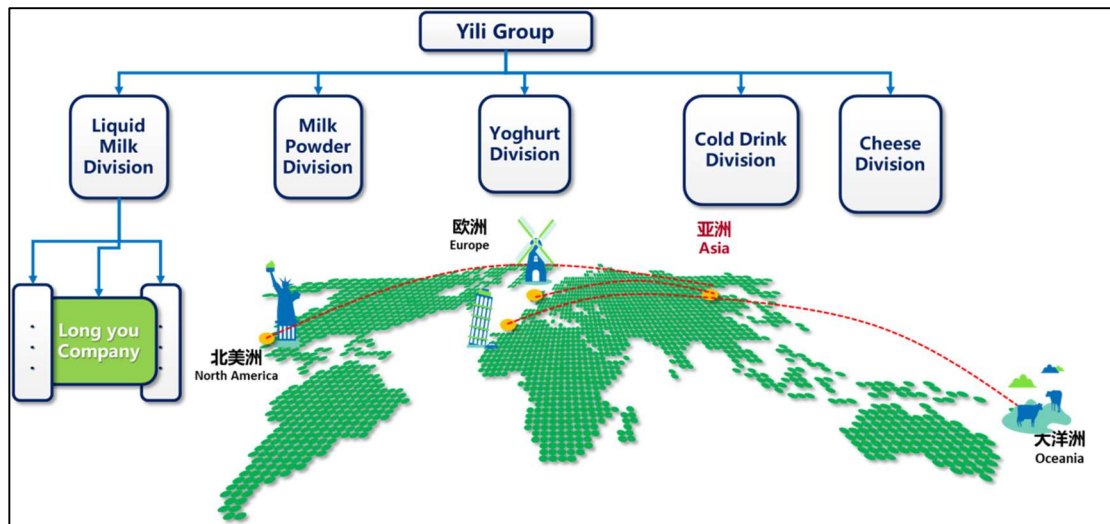


Figure 1.1 Yili Group

### 1.2 An overview of Longyou Company.

#### 1.2.1 A brief introduction to Longyou Company

Longyou Yili Dairy Co., Ltd. under Yili Group is located in Longyou County, Quzhou City, Zhejiang Province, China. It covers an area of 103,300 square meters with a total investment of 550 million yuan. The factory was put into operation in May 2015, and TPM was introduced during the same period. Since 2016, 9 pillars have been introduced successively. In 2020, the factory met the examination criteria of TPM Excellence Award (Class A) by virtue of independent learning, and the factory is to challenge the TPM Sustained Excellence Award in 2023. (See Chart 1.2.1)



Figure 1.2.1 Longyou Company

### 1.2.2 Organizational Structure.

Longyou has set up 12 departments, including safety department, technology department, production department and equipment department (See Figure 1.2.2)

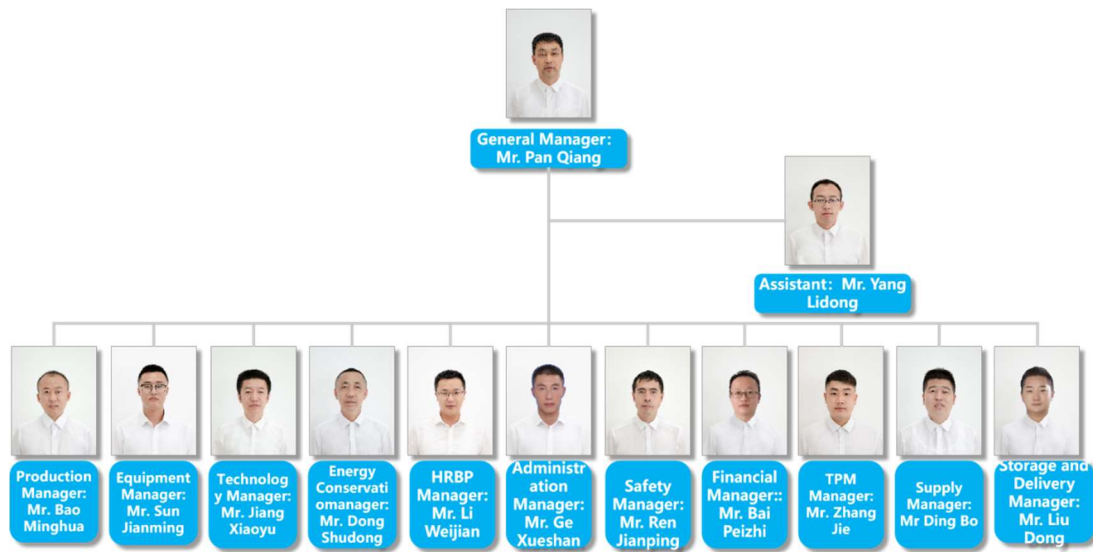


Figure 1.2.2 Organizational Structure

### 1.2.3 Products & Equipment.

The factory has 4 UHT production lines, 8 filling machines and 8 packing machines, with a production capacity of 728 tons/day. The products produced by the factory involve 6 items under 2 series, fermented milk series and milk beverage series. (see Figure 1.2.3)



Figure 1.2.3 Products & Equipment

### 1.2.4 Technique

Factory production process: milk acceptance → milk clarification → pasteurization → batching → UHT sterilization → aseptic filling → packaging → storage → delivery

(See Figure 1.2.4)












Work Section	pretreatment							Filling	Packing	Final Product	
Working Procedure	Raw Material Acceptance	Milk Clarification	Pasteurization	Batching	Mixed-material Batching	Fermentation	Post-fermentation Pasteurization	Filling	Packing	Storage	Delivery
Illustration											
Matter needing attention	≤6°C	6100-6300rpm	80-90°C/15s	50-55°C	121±4°C/60s	5.5-8h	120-122°C/4s	Good closure and shape	Solid package	Favorable temperature/humidity	Logistic Vehicle

Figure 1.2.4 Technique

### 1.2.5 Equipment

The factory classified its equipment into A, B and C categories according to the dimensions of safety, quality, cost, efficiency and assets, and sorted out 261 sets of equipment in total. Among them, Category A devices (24) accounts for 9.20%, Category B devices (34) accounts for 13.03%, and Category C devices (203) accounts for 77.78%.

(See Figure 1.2.5)

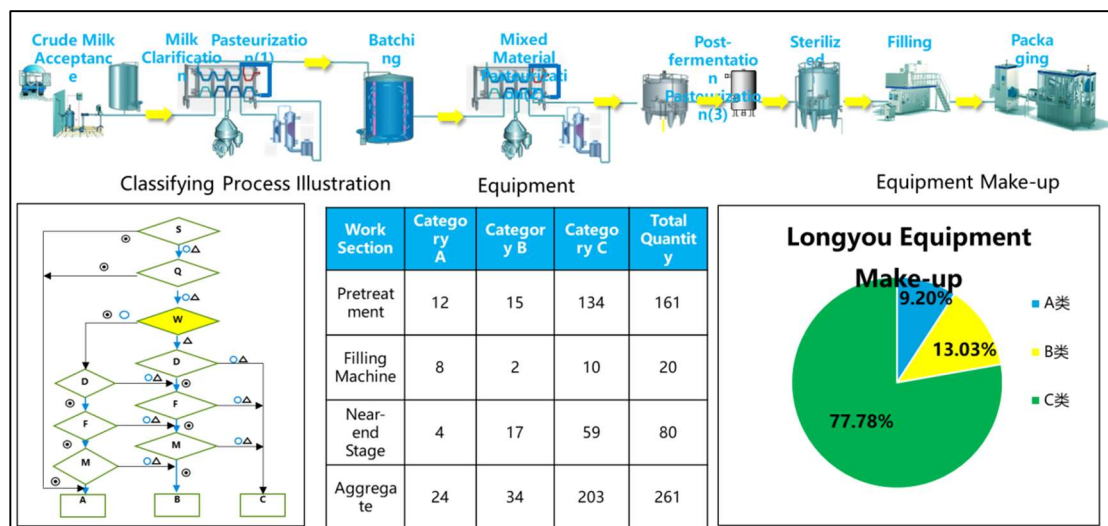


Figure 1.2.5 Equipment

### 1.2.6 Staff Make-up

We have 536 staff members in total, 50.9% of which is made up of direct labor.

Staff members no older than 30 years of age accounts for 38% of the total, and 41% of our staff has received an education at least in Junior College, 63% of the staff has a working age longer than 3 years. (See Figure 1.2.6)

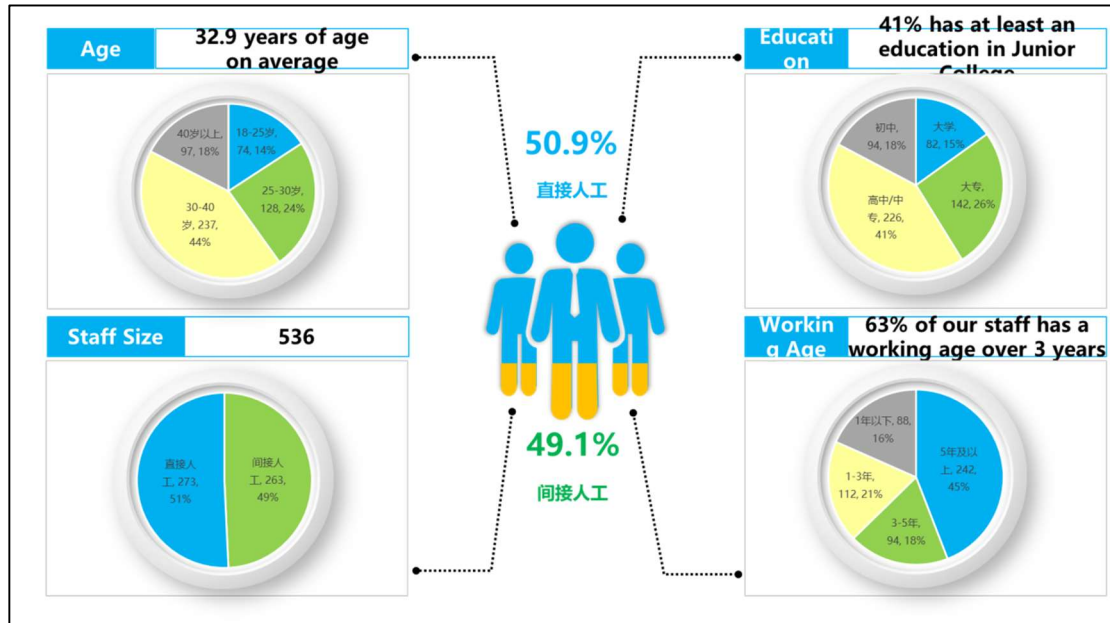


Figure 1.2.6 Staff Make-up

## Chapter 2 TPM: a milestone on our journey to excellence.

### 2.1 Reasons for introducing TPM

Yili Group has a vision of becoming the world's most trusted provider of health food, and guided by that vision, Longyou company sets to build itself into a world-class health food manufacturing factory, and it has developed a strategy after a thorough SWOT analysis: Team Building, Consolidation of Foundation, Quality Assurance, Reduction of Losses. To ensure the realization of the strategy, the factory has introduced into it TPM, an advanced management system. (See Figure 2.1)

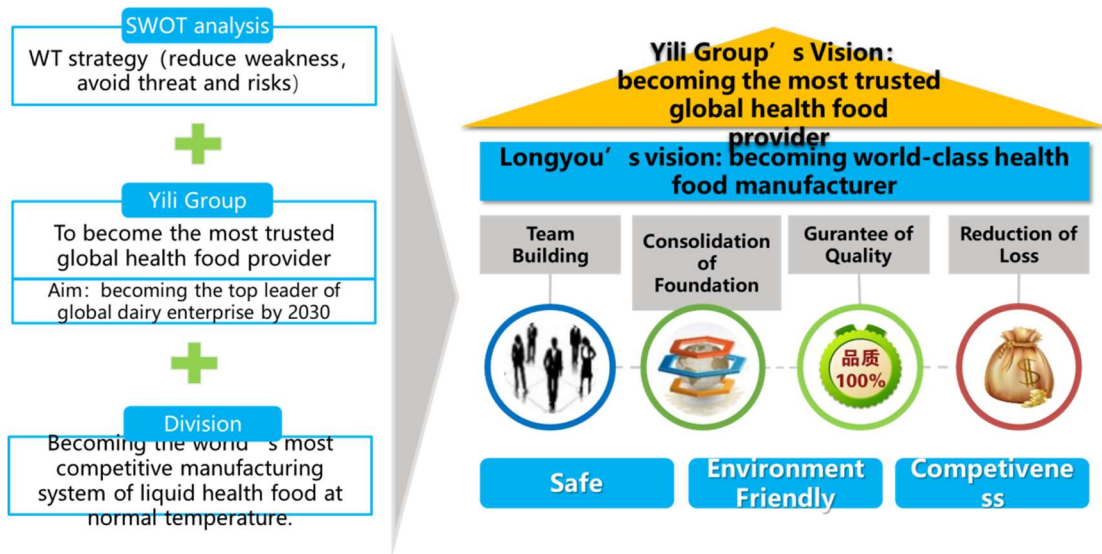


Figure 2.1 Factory Strategy.

## 2.2 Development of TPM in Longyou

In May 2015, TPM activities were partially introduced into the Longyou factory. In 2016, we entered the stage of full implementation. The factory launched in order 9 pillars, namely FI, TD, AM, PM, QM, SH, ENV, OM and EM, and carried out improvement campaign. The factory plans to challenge itself for the TPM Sustained Excellence Award in 2023 and continue to challenge for JIPM awards at all levels in the years to come. (See Figure 2.2)



Figure 2.2 development of TPM in Longyou

## Chapter 3 TPM's effects

### 3.1 Tangible Growth in Operation Performance (See Figure 3.1)



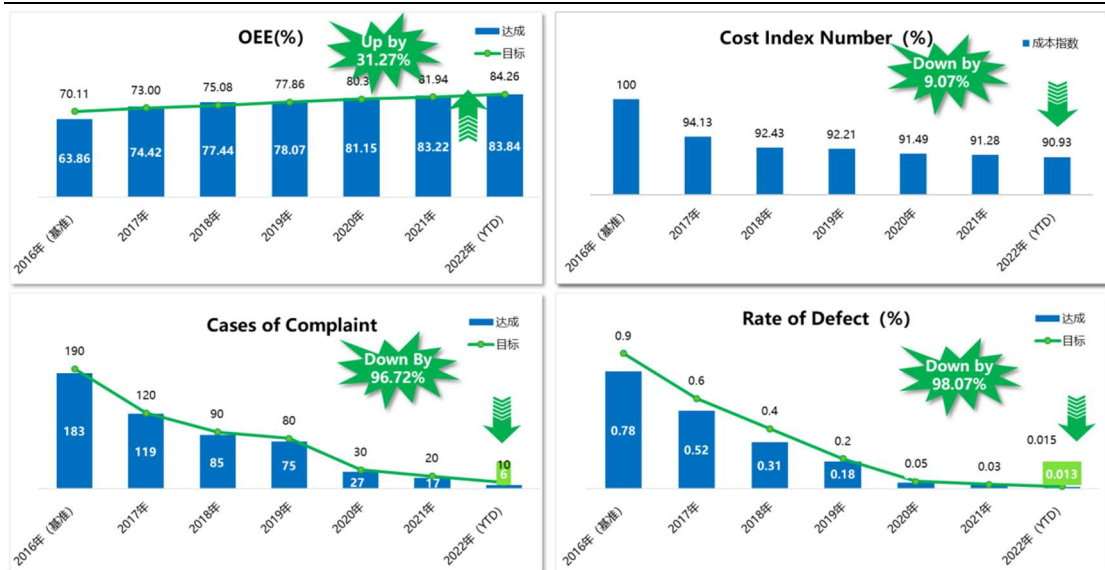


Figure 3.1 Tangible Results

### 3.2 Intangible Results

- ① A better sense of cooperation: pillar activities have enabled closer cross-departments cooperation
- ② A growth in staff competence: TPM has helped staff to cultivate a systematic thinking and enhanced their ability to solve problems.
- ③ A boost in morale: TPM has helped improve the production condition and a boost in morale and confidence.

### Chapter 4 The Key to TPM's Success in our Factory

- The management's identification with and support to TPM
- A closer and more systematic cooperation among departments.
- An integration of TPM activities into daily work routine.
- A constant upgrading of TPM methodology and tools.
- TPM incentive mechanism set up to involve all of the staff.



### Chapter 5 Achievements

Category	Index	Unit	BM (TPM Started or last time awarded)	Actual Status	Target
Enter the year →			2016	2022	2023
S	Number of work-related accidents requiring days off work	Cases/ year	2	0	0
S	Number of work-related accidents not requiring days off work	Cases/ year	7	0	0
P	Productivity for main products	Parts/Operator hours	/	/	/
P	OEE (or Overall Plant Efficiency)	%	63.86	85.64	86.49
P	Availability	%	64.9	86.3	87.1
P	Performance Rate	%	99.45	99.73	99.75
P	Quality Products Rate	%	98.94	99.5	99.55
P	Number of breakdowns	Breakdowns/ year	5032	1331	1210
P	MTBF	Hour	3.58	15.58	16.66
P	MTTR	Hour	0.76	0.5	0.42
Q	Number of customer complaints	Number/year	91	43	26
Q	In-line defect rate (scrap)	%	0.78	0.044	0.03
Q	In-line defect rate (rework)	%	/	/	/
C	Cost index	Cost/Unit Cost/Kilogram	100	90.93	90.65
D	Production Lead time	Days	15.6	7.2	6.5
D	Delivery performance	%	100	100	100
S	Frequency rate	Number of occupational accidents with leave for 1 000 000 worked hours	16	0	0
M	Number of Employee Suggestions	Number/year	4401	7091	7800