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AUSTAR
奥星

Austar Lifesciences Limited
奧星生命科技有限公司

(Incorporated in the Cayman Islands with limited liability)
(Stock Code: 6118)

ANNOUNCEMENT OF ANNUAL RESULTS FOR THE YEAR ENDED 31 DECEMBER 2020

	2020	2019
	RMB'000	*RMB'000*
Revenue	**1,295,980**	1,049,021
Gross profit	**323,530**	284,244
Profit before income tax	**41,489**	12,208
Profit attributable to the owners of the Company	**33,100**	8,091
Total assets	**1,378,844**	1,174,322
Net assets	**524,574**	502,625
Gross profit margin	**25.0%**	27.1%
Current ratio	**1.4**	1.5
Gearing ratio	**12.7%**	10.2%
Net debt to equity ratio	**Net Cash**	Net Cash
Basic earnings per share *(Note)*	**RMB0.06**	RMB0.02
Diluted earnings per share *(Note)*	**RMB0.06**	RMB0.02

Note:

The calculation of earnings per share is based on the profit attributable to the owners of the Company for each of the years ended 31 December 2020 and 2019 and the weighted average number of shares during that year. The Company had no dilutive ordinary shares for each of the years ended 31 December 2020 and 2019.

ANNUAL RESULTS

The board ("**Board**") of directors ("**Directors**", each a "**Director**") of Austar Lifesciences Limited ("**Company**" or "**Austar**") is pleased to announce the audited consolidated results of the Company and its subsidiaries (collectively, the "**Group**") for the year ended 31 December 2020 ("**Year**"), together with the comparative figures for the year ended 31 December 2019 as follows:

CONSOLIDATED INCOME STATEMENT

	Notes	**For the year ended 31 December 2020** *RMB'000*	For the year ended 31 December 2019 *RMB'000*
Revenue	*3*	**1,295,980**	1,049,021
Cost of sales	*6*	**(972,450)**	(764,777)
Gross profit		**323,530**	284,244
Selling and marketing expenses	*6*	**(148,692)**	(137,077)
Administrative expenses	*6*	**(98,695)**	(108,731)
Net impairment losses on financial and contract assets		**(12,139)**	(5,109)
Research and development expenses	*6*	**(48,268)**	(42,577)
Other income		**8,039**	9,153
Other gains – net	*5*	**6,955**	146
Operating profit		**30,730**	49
Finance income	*4*	**3,115**	5,703
Finance costs	*4*	**(2,833)**	(3,736)
Finance income – net		**282**	1,967
Share of net profit of investments accounted for using the equity method		**10,477**	10,192
Profit before income tax		**41,489**	12,208
Income tax expense	*8*	**(9,884)**	(4,744)
Profit for the year		**31,605**	7,464
Profit/(loss) attributable to:			
The owners of the Company		**33,100**	8,091
Non-controlling interests		**(1,495)**	(627)

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

	Note	**For the year ended 31 December 2020** *RMB'000*	For the year ended 31 December 2019 *RMB'000*
Profit for the year		**31,605**	7,464
Other comprehensive income			
Items that may be reclassified to profit or loss			
Currency translation differences		**(10,441)**	5,713
Changes in the fair value of financial assets at fair value through other comprehensive income		**74**	55
Share of other comprehensive income/(loss) of investments accounted for using the equity method		**711**	(213)
Other comprehensive (loss)/income for the year, net of tax		**(9,656)**	5,555
Total comprehensive income for the year		**21,949**	13,019
Total comprehensive income attributable to:			
The owners of the Company		**23,362**	13,573
Non-controlling interests		**(1,413)**	(554)
		21,949	13,019
Earnings per share for profit attributable to the owners of the Company – basic and diluted (RMB)	*9*	**0.06**	0.02

CONSOLIDATED BALANCE SHEET

	Notes	As at 31 December 2020 RMB'000	As at 31 December 2019 RMB'000
ASSETS			
Non-current assets			
Property, plant and equipment		**68,625**	55,005
Right-of-use assets		**117,300**	90,426
Intangible assets		**23,459**	26,253
Deferred income tax assets		**7,047**	6,558
Investments accounted for using the equity method		**62,940**	57,509
Prepayments and other receivables		**10,190**	10,399
Total non-current assets		**289,561**	246,150
Current assets			
Inventories		**209,240**	163,517
Contract assets and other assets	*12*	**238,119**	185,747
Trade and notes receivables	*11*	**279,417**	251,091
Prepayments and other receivables		**56,469**	47,746
Pledged bank deposits		**127,927**	88,778
Term deposits with initial terms of over three months		**162**	209
Cash and cash equivalents		**177,949**	191,084
Total current assets		**1,089,283**	928,172
Total assets		**1,378,844**	1,174,322
EQUITY			
Equity attributable to the owners of the Company			
Share capital		**4,071**	4,071
Reserves		**379,822**	389,560
Retained earnings		**134,006**	100,906
		517,899	494,537
Non-controlling interests		**6,675**	8,088
Total equity		**524,574**	502,625

CONSOLIDATED BALANCE SHEET *(continued)*

	Notes	As at 31 December 2020 RMB'000	As at 31 December 2019 RMB'000
LIABILITIES			
Non-current liabilities			
Lease liabilities		**32,337**	24,988
Deferred income		**452**	1,972
Deferred income tax liabilities		**15,797**	10,950
Total non-current liabilities		**48,586**	37,910
Current liabilities			
Trade and other payables	*13*	**439,957**	378,708
Contract liabilities	*12*	**322,177**	222,276
Current income tax liabilities		**832**	907
Short-term borrowings	*14*	**30,000**	20,000
Lease liabilities		**12,718**	11,896
Total current liabilities		**805,684**	633,787
Total liabilities		**854,270**	671,697
Total equity and liabilities		**1,378,844**	1,174,322

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2020

1. GENERAL INFORMATION

The Company was incorporated in the Cayman Islands on 9 January 2014 as an exempted company with limited liability under the Companies Law, Chapter 22 (Law 3 of 1961, as consolidated and revised) of the Cayman Islands. The address of the Company's registered office is Cricket Square, Hutchins Drive, P.O. Box 2681, Grand Cayman KY1-1111, Cayman Islands.

The Company is an investment holding company and its subsidiaries are principally engaged in providing integrated engineering solutions to pharmaceutical manufacturers and research institutes, as well as manufacturing and distribution of pharmaceutical equipment and consumables in the People's Republic of China ("**PRC**" or "**China**"). The ultimate holding company of the Company is Standard Fortune Holdings Limited, a company incorporated in the British Virgin Islands ("**BVI**") with limited liability and wholly owned by Mr. Ho Kwok Keung, Mars ("**Mr. Mars Ho**"), also the Controlling Shareholder, Chairman of the Board of Directors and the chief executive officer of the Company ("**Chief Executive Officer**").

Ordinary shares of HK$0.01 each in the share capital of the Company ("**Shares**") have been listed on the Main Board of The Stock Exchange of Hong Kong Limited ("**Stock Exchange**") on 7 November 2014.

The consolidated financial statements are presented in thousands of Renminbi Yuan ("**RMB**") unless otherwise stated, and is approved for issue by the Board on 26 March 2021.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

This note provides a list of the significant accounting policies adopted in the preparation of the consolidated financial statements. These policies have been consistently applied to all the years presented, unless otherwise stated. The financial statements are for the Group consisting of the Company and its subsidiaries.

The consolidated financial statements of the Group have been prepared in accordance with International Financial Reporting Standards ("**IFRS**") and requirements of the Hong Kong Companies Ordinance (Cap 622). The consolidated financial statements have been prepared on a historical cost basis, except for certain financial assets measured at fair value.

(a) New and amended standards adopted by the Group

The Group has applied the following standard for the first time for their annual reporting period commencing 1 January 2020:

- Definition of Material – amendments to IAS 1 and IAS 8
- Definition of a Business – amendments to IFRS 3
- Interest Rate Benchmark Reform – amendments to IFRS 7, IFRS 9 and IAS 39
- Revised Conceptual Framework for Financial Reporting

The amendments listed above did not have any impact on the amounts recognised in prior periods and are not expected to significantly affect the current or future periods.

(b) New standards and interpretations not yet adopted

Certain new accounting standards and interpretations have been published that are not mandatory for 31 December 2020 reporting periods and have not been early adopted by the Group. These standards are not expected to have a material impact on the Group in the current or future reporting periods and on foreseeable future transactions.

3. SEGMENT INFORMATION

The chief operating decision-makers ("**CODM**") has been identified as the Chief Executive Officer, the vice presidents and the Directors who review the Group's internal reports in order to assess performance and allocate resources.

The CODM considers the business primarily from a product and service perspective, which mainly includes six reportable operating segments: (1) Liquid and Bioprocess System; (2) Clean Room and Automation Control and Monitoring System; (3) Powder and Solid System; (4) GMP Compliance Service; (5) Life Science Consumables; and (6) Distribution and Agency of Pharmaceutical Equipment.

The measurement of results and assets of the operating segments are the same as those described in the summary of significant accounting policies. The CODM evaluates the performance of the reportable segments based on gross profit.

The segment results for the year ended 31 December 2020 are as follows:

	Liquid and Bioprocess System *RMB'000*	Clean Room and Automation Control and Monitoring System *RMB'000*	Powder and Solid System *RMB'000*	GMP Compliance Service *RMB'000*	Life Science Consumables *RMB'000*	Distribution and Agency of Pharmaceutical Equipment *RMB'000*	Total *RMB'000*
Segment revenue and results							
Segment revenue	634,619	303,465	120,822	55,595	254,508	20,800	1,389,809
Inter-segment revenue	(46,131)	(39,029)	(297)	(2,866)	(4,338)	(1,168)	(93,829)
Revenue	588,488	264,436	120,525	52,729	250,170	19,632	1,295,980
Recognised at a point in time	139,202	42,855	13,741	2,162	250,170	19,632	467,762
Recognised over time	449,286	221,581	106,784	50,567	–	–	828,218
Cost of sales	(498,237)	(207,239)	(86,414)	(26,754)	(140,819)	(12,987)	(972,450)
Segment results							
Gross profit	90,251	57,197	34,111	25,975	109,351	6,645	323,530
Other segment items							
Amortisation	2,715	704	54	23	–	9	3,505
Depreciation	16,729	5,957	1,435	801	3,066	407	28,395
Provision for impairment losses on financial and contract assets	7,670	1,899	783	357	1,293	137	12,139
(Reversal of)/provision for impairment of inventories	(818)	1,021	518	218	(533)	70	476
Impairment of goodwill	3,141	–	–	–	–	–	3,141
Share of net profits of investments accounted for using the equity method	7,559	123	–	–	2,795	–	10,477

The segment results for the year ended 31 December 2019 are as follows:

	Liquid and Bioprocess System *RMB'000*	Clean Room and Automation Control and Monitoring System *RMB'000*	Powder and Solid System *RMB'000*	GMP Compliance Service *RMB'000*	Life Science Consumables *RMB'000*	Distribution and Agency of Pharmaceutical Equipment *RMB'000*	Total *RMB'000*
Segment revenue and results							
Segment revenue	482,816	300,934	87,175	54,685	204,303	24,056	1,153,969
Inter-segment revenue	(46,836)	(50,059)	(4,212)	(1,044)	(717)	(2,080)	(104,948)
Revenue	435,980	250,875	82,963	53,641	203,586	21,976	1,049,021
Recognised at a point in time	82,829	55,871	31,572	8,468	203,586	21,976	404,302
Recognised over time	353,151	195,004	51,391	45,173	–	–	644,719
Cost of sales	(361,347)	(191,980)	(55,048)	(25,525)	(116,941)	(13,936)	(764,777)
Segment results							
Gross profit	74,633	58,895	27,915	28,116	86,645	8,040	284,244
Other segment items							
Amortisation	1,536	632	58	33	–	15	2,274
Depreciation	13,434	6,338	1,119	698	2,141	293	24,023
Provision for/(reversal of) impairment losses on financial and contract assets	4,872	(263)	(191)	(79)	819	(49)	5,109
Impairment of inventories	11,902	1,018	165	104	344	43	13,576
Share of net profit/(loss) of investments accounted for using the equity method	5,222	(208)	–	–	5,178	–	10,192

A reconciliation of segment gross profit to total profit before income tax is provided as follows:

	For the year ended 31 December 2020 *RMB'000*	For the year ended 31 December 2019 *RMB'000*
Liquid and Bioprocess System	**90,251**	74,633
Clean Room and Automation Control and Monitoring System	**57,197**	58,895
Powder and Solid System	**34,111**	27,915
GMP Compliance Service	**25,975**	28,116
Life Science Consumables	**109,351**	86,645
Distribution and Agency of Pharmaceutical Equipment	**6,645**	8,040
Total gross profit for reportable segments	**323,530**	284,244
Selling and marketing expenses	**(148,692)**	(137,077)
Administrative expenses	**(98,695)**	(108,731)
Net impairment losses on financial and contract assets	**(12,139)**	(5,109)
Research and development expenses	**(48,268)**	(42,577)
Other income	**8,039**	9,153
Other gains – net	**6,955**	146
Finance income – net	**282**	1,967
Share of net profit of investments accounted for using the equity method	**10,477**	10,192
Profit before income tax	**41,489**	12,208

The segment assets as at 31 December 2020 and 2019 are as follows:

	As at 31 December 2020		As at 31 December 2019	
	Total assets	**Investments accounted for using the equity method**	Total assets	Investments accounted for using the equity method
	RMB'000	***RMB'000***	*RMB'000*	*RMB'000*
Liquid and Bioprocess System	**543,838**	**17,758**	354,973	17,369
Clean Room and Automation Control and Monitoring System	**255,687**	**23,010**	255,540	21,517
Powder and Solid System	**71,943**	**–**	70,490	–
GMP Compliance Service	**33,197**	**–**	32,586	–
Life Science Consumables	**159,687**	**22,172**	136,658	18,623
Distribution and Agency of Pharmaceutical Equipment	**6,745**	**–**	28,085	–
Total segment assets	**1,071,097**	**62,940**	878,332	57,509
Unallocated				
Deferred income tax assets	**7,047**		6,558	
Headquarter assets	**300,700**		289,432	
Total assets	**1,378,844**		1,174,322	

Geographical information

The following tables present information on revenue and certain assets of the Group by geographical regions:

	For the year ended 31 December 2020 *RMB'000*	For the year ended 31 December 2019 *RMB'000*
Revenue		
Mainland China	**1,219,015**	964,135
Other locations	**76,965**	84,886
	1,295,980	1,049,021

	As at 31 December 2020 *RMB'000*	As at 31 December 2019 *RMB'000*
Non-current assets other than financial assets and deferred tax assets		
Mainland China	**192,213**	152,502
Other locations	**80,111**	76,691
	272,324	229,193

4. FINANCE INCOME – NET

	For the year ended 31 December 2020 *RMB'000*	For the year ended 31 December 2019 *RMB'000*
Interest expense		
– Short term bank borrowings	**(1,038)**	(1,739)
– Lease liabilities	**(1,755)**	(1,610)
Exchange losses	**(40)**	(387)
Finance costs	**(2,833)**	(3,736)
Finance income		
– Bank deposits	**2,624**	5,194
– Loan to PALL-AUSTAR Lifesciences Limited ("**PALL-AUSTAR JV**")	**491**	509
	3,115	5,703
	282	1,967

5. OTHER GAINS – NET

	For the year ended 31 December 2020 *RMB'000*	For the year ended 31 December 2019 *RMB'000*
Losses on disposal of property, plant and equipment	**(47)**	(218)
Exchange gains/(losses)	**4,396**	(2,415)
Others	**2,606**	2,779
	6,955	146

6. EXPENSES BY NATURE

	Note	**For the year ended 31 December 2020** *RMB'000*	For the year ended 31 December 2019 *RMB'000*
Raw materials		**722,907**	570,889
Staff costs, including directors' emoluments	*7*	**308,833**	225,741
On-site subcontract fee		**48,225**	59,659
Travel expenses		**33,676**	43,136
Promotion expenses		**12,681**	22,176
Freight and port charges		**22,796**	21,973
Impairment of inventories		**476**	13,576
Professional fees		**12,319**	13,310
Depreciation			
– Property, plant and equipment		**12,005**	11,176
– Right-of-use assets		**16,390**	12,847
Office expenses		**7,233**	10,524
Warranty provision		**8,663**	6,548
Sales tax and surcharges		**8,180**	4,988
Auditor's remuneration			
– Audit service		**3,991**	3,988
– Non-audit service		**724**	9
Amortisation		**3,505**	2,274
Impairment of goodwill		**3,141**	–
Communication expenses		**2,560**	1,997
Technical service fee		**9,768**	1,526
Business entertainment expenses		**8,535**	8,316
Repair and maintenance		**2,618**	1,369
Human resources management expenses		**1,873**	2,855
Bank charges		**1,818**	2,028
Convention service expenses		**1,423**	2,805
Property management fee		**1,306**	1,076
Labour insurance premiums		**676**	603
Renovation expenses		**562**	995
Other operating expenses		**11,221**	6,778
		1,268,105	1,053,162

7. STAFF COSTS, INCLUDING DIRECTORS' EMOLUMENTS

	For the year ended 31 December 2020 *RMB'000*	For the year ended 31 December 2019 *RMB'000*
Salaries and bonuses	**277,392**	177,499
Pension and social obligations	**31,441**	48,242
	308,833	225,741

8. INCOME TAX EXPENSE

	For the year ended 31 December 2020 *RMB'000*	For the year ended 31 December 2019 *RMB'000*
Current income tax expense	**5,571**	2,903
Deferred income tax expense	**4,313**	1,841
	9,884	4,744

The Company was incorporated in the Cayman Islands as an exempted company with limited liability under the Companies Law of the Cayman Islands and, accordingly, is exempted from local income tax.

The Group's subsidiaries incorporated in the BVI under the International Business Companies Acts or, as the case may be, BVI Business Companies Act of the BVI are exempted from local income tax.

The taxation of the Group's subsidiaries in Hong Kong is calculated at 16.5% of the estimated assessable profits for the year (2019: 16.5%).

The taxation of the Group's subsidiary in Germany is calculated at 30% of the estimated assessable profit for the year (2019: 30%).

Corporate income tax in the PRC is calculated based on the statutory profit or loss of subsidiaries incorporated in the PRC in accordance with the PRC tax laws and regulations, after adjusting certain income and expense items, which are not assessable or deductible for income tax purposes. According to the PRC Corporate Income Tax Law promulgated by the PRC government, the tax rate for the Company's PRC subsidiaries is 25%, except for certain subsidiaries which are taxed at preferential tax rates. Shanghai Austar Pharmaceutical Technology Equipment Co., Ltd. ("**Shanghai Austar**"), Austar Hansen Lifesciences (Shanghai) Ltd. ("**Austar Hansen**") and Austar Pharmaceutical Equipment (Shijiazhuang) Co., Ltd. ("**Austar SJZ**") are high and new technology enterprises certified by relevant local authorities in the PRC. These entities are entitled to preferential corporate income tax rates of 15% upon fulfilment of certain conditions under the tax ruling. Austar SJZ has been enjoying preferential corporate income tax rate since 2014 and renewed its "High and New Technology Enterprise" qualification for another three years in 2018. Shanghai Austar and Austar Hansen have been enjoying preferential corporate income tax rate since 2013 and renewed their "High and New Technology Enterprise" qualification for another three years in 2019. During the year ended 31 December 2020, Hebei Aunity Engineering Consulting Limited ("**Hebei Aunity**") met the criteria for Micro and Small Enterprises and was entitled to preferential income tax rate of 20%, and was eligible to have income tax calculated based on 50% of taxable income.

9. EARNINGS PER SHARE

(a) Basic

Basic earnings per share is calculated by dividing the profit attributable to the owners of the Company by the weighted average number of ordinary shares in issue during the year.

	For the year ended 31 December 2020	For the year ended 31 December 2019
Profit attributable to the owners of the Company *(RMB'000)*	**33,100**	8,091
Weighted average number of ordinary shares in issue *(Thousands)*	**512,582**	512,582
Basic earnings per share *(RMB)*	**0.06**	0.02

(b) Diluted

As the Company had no dilutive ordinary shares for each of the year ended 31 December 2020 and 2019, diluted earnings per share for the years ended 31 December 2020 and 2019 are the same as basic earnings per share.

10. DIVIDENDS

The Board did not propose any final dividend for the year ended 31 December 2020 (2019: Nil).

11. TRADE AND NOTES RECEIVABLES

	As at 31 December 2020 *RMB'000*	As at 31 December 2019 *RMB'000*
Trade receivables *(Note (b))*	**265,311**	226,963
Notes receivable *(Note (a))*	**46,462**	47,116
	311,773	274,079
Less: loss allowance	**(32,356)**	(22,988)
	279,417	251,091

Notes:

(a) Most of the notes receivable are bank acceptance with maturity dates within six months (2019: within six months).

(b) The ageing analysis of gross trade receivables (including amounts due from related parties of trading in nature) based on sales contracts at the respective balance sheet dates is as follows:

	As at 31 December 2020 *RMB'000*	As at 31 December 2019 *RMB'000*
Within 6 months	**165,784**	143,827
6 months to 1 year	**20,817**	17,536
1 to 2 years	**41,513**	29,576
2 to 3 years	**10,594**	26,767
Over 3 years	**26,603**	9,257
	265,311	226,963

Most of the trade receivables are due within 90 days in accordance with the sales contracts.

12. ASSETS AND LIABILITIES RELATED TO CONTRACTS WITH CUSTOMERS

The Group has recognised the following assets and liabilities related to contracts with customers:

	As at 31 December 2020	As at 31 December 2019
	RMB'000	*RMB'000*
Contract assets	**240,778**	186,523
Loss allowance of contract assets	**(4,699)**	(3,659)
	236,079	182,864
Costs incurred to obtain contracts	**2,040**	2,883
Total contract assets and other assets	**238,119**	185,747
Contract liabilities	**(322,177)**	(222,276)

13. TRADE AND OTHER PAYABLES

	As at 31 December 2020	As at 31 December 2019
	RMB'000	*RMB'000*
Trade payables	**280,591**	236,504
Notes payables	**16,331**	25,244
Payroll and welfare payable	**64,499**	37,856
Taxes other than income taxes payable	**15,067**	3,510
Warranty provision	**12,109**	12,422
Accrued expenses	**17,401**	29,883
Employee payable	**3,494**	5,533
Loan from a non-controlling shareholder of a subsidiary	**1,410**	1,563
Others	**29,055**	26,193
	439,957	378,708

The ageing analysis of trade payables (including amounts due to related parties of trading in nature) based on invoice date is as follows:

	As at 31 December 2020 *RMB'000*	As at 31 December 2019 *RMB'000*
Within 6 months	**247,112**	206,632
6 months to 1 year	**12,667**	14,597
1 to 2 years	**13,036**	7,550
2 to 3 years	**2,146**	2,735
Over 3 years	**5,630**	4,990
	280,591	236,504

14. SHORT-TERM BORROWINGS

	As at 31 December 2020 *RMB'000*	As at 31 December 2019 *RMB'000*
Bank borrowings, secured *(Note (a))*	**20,000**	20,000
Bank borrowings, guaranteed *(Note (b))*	**10,000**	–
	30,000	20,000

Note:

(a) As at 31 December 2020, secured short-term bank borrowings are denominated in RMB, secured by the Group's buildings and right-of-use assets. For the year ended 31 December 2020, the short-term bank borrowings bear interest rate of 4.57% (2019: 4.57%) per annum and is repayable within one year.

(b) As at 31 December 2020, the short-term bank borrowings are guaranteed by Shanghai Administration Center of Policy Financing Guarantee Funds for SMEs. For the year ended 31 December 2020, the short-term bank borrowings bear interest rate of 3.65% per annum and is repayable within one year (2019: Nil).

MANAGEMENT DISCUSSION AND ANALYSIS

Market Review

In the aftermath of the Coronavirus Disease 2019 (COVID-19) outbreak, the urgent demand for the discovery, development and manufacturing of COVID-19 vaccines is driving all key health institutions of a few key and developed countries to allocate resources in a quest to be the earliest launcher of such vaccine. The requests on projects, products and services in various countries were clearly seen in 2020 and could be expected to grow in 2021. It is believed that much more significant investment in the life sciences and biopharmaceutical sectors due to increased health concerns and awareness not only from the public but also from the government and private sectors.

Some countries have been asking for more independence in biopharmaceuticals and therapeutics, especially on supply chain, thus creating a demand for more equipment and systems to be installed and more facilities to be built. It will become new driving forces for growth in the pharmaceutical industry in the coming few years.

Under such circumstances, the importance of the global supply chain is highlighted. The pharmaceutical industry is at the front line of the global supply chain, and has to cope with intensive regulatory policies, innovations, investment trend and industry upgrading. As an opportunity, it is expected that the global technology transfer such as license-in/license-out will be booming as well.

In order to implement the "Drug Administration Law" and the "Vaccine Administration Law", the National Medical Products Administration (NMPA) has issued a number of regulatory guidance documents in 2020, involving Marketing Authorization Holder (MAH), Change Management, Pharmacovigilance and other compliance contents. The implementation of the MAH system, clarifying the responsibilities of the authorization holder and the authorized party, has changed the rule of drug marketing licencing and production licencing.

Review and approval of product registration have been optimised in the aspects of application review, approval, and verification. It is designed to speed up the commercialisation of the product to the market from its development phase. With those new mechanisms, it brings opportunities for services such as Good Engineering Practice (GEP), Commissioning, Qualification and Validation (CQV) and Technology Transfer Management (TTM).

Under the recent medicinal product centralised procurement practice in China, pharmaceutical companies have sought internal resources relocation and optimisation to reduce the cost of production. One of the approaches is that the corporate headquarters will act as the centralised MAH and their subsidiaries will act as Contract Manufacture Organization (CMO) (i.e. the authorised party for the product(s)). These new industry developments have given the Group consulting service opportunities for Pharmaceutical Quality System (PQS) and TTM . The most recent price negotiations for Chinese drug products, especially the innovative drugs like PD-1, was discouraging as the drug prices were too low to compensate the investment and efforts made by biotech companies. Innovative drug research and manufacturers, including their Contract Development and Manufacture Organization (CDMO) partners, must look for new ways to survive; cost savings and operation excellence would be their imminent concerns. The Group can definitely help by offering our lean digitalisation consulting and offering more cost-effective and fully automatic integrated solution.

The Center for Food and Drug Inspection (CFDI) of NMPA issued the "Medicinal Product Manufacturing Site Management Guideline (Trial)" for public opinion. The appendix to the guideline listed the varieties with high toxicity, high potency and high sensitivity in the production sites respectively in the appendix so that the regulatory agency is able to put more efforts on regulatory monitoring and supervision, which provides the business opportunities of containment technology, which our Powder & Solid Business Segment is good at.

In the global pandemic, the demands of vaccines are expected to grow rapidly. Especially, a surge of COVID-19 vaccine investment projects have been witnessed by the increase of project enquiries and contracts since early 2020. At the same time, the market growth of Class II vaccines related to contagious diseases (i.e. influenza) will continue to prevail.

Arrangements for the CMO, CDMO and Contract Research Organization (CRO) are gradually winning the favor of multinational corporations in outsourced activities. This phenomena fueled by China's MAH regulatory policy implementation is creating strong demand from consulting, instrument, equipment and systems to facility turnkey projects.

In 2020, there were a total of 12 biotech companies listed on the Hong Kong Stock Exchange and total of more than 10 biotech companies listed on the Shanghai Stock Exchange STAR Market. Such momentum is expected to continue and there are no indicators and signals for any decline in this direction in the coming years. A significant part of the use of proceeds from most of these initial public offerings would be allocated for capital expenditure (CAPEX) for new research and manufacturing facilities, which will help generating more project opportunities for the Group.

Business Review

The year 2020 has been tough due to the outbreak of COVID-19. For the first half of the Year, the related travel restrictions and communication barriers caused delays in bidding, order contract negotiation and project execution for 1.5 to 2 months. Our sales and project execution team made great contributions to the Company as they have been able to capture orders of several COVID-19 vaccine research and manufacturing facilities and deliver our products and execute projects under such virus-threatening inconvenient working conditions. During the Year, the Company still achieved growth of approximately 29.4% in order-in-take and approximately 23.5% in revenue as compared to 2019.

In the post-COVID-19 era, it is believed that more CAPEX investment, whether in the public sector or the private sector, would be deployed to the life sciences industry. Vaccine drug development and manufacturing are expected to boom.

The skill and knowledge sets developed by the Group for building BSL-3 vaccine research and manufacture facility and related equipment and systems in the last few years will benefit the Group's competence elements of biosafety-related and vaccine industry. The project execution experience accumulated and developed in the period during the outbreak of COVID-19 to complete COVID-19 vaccine projects in an extremely tight schedule under such tough environment would be an asset to our project execution team, and project profit margin is expected to gradually improve.

The Company is positioning as a technology-based pharmaceutical solution provider with system integration capability to offer in life science industry focusing in pharmaceutical, biologics, pharmaceutical bulk chemical sectors and expanding to medical device, research laboratory animal, animal health sectors with products and services from consulting services, consumables, instruments, equipment, process systems, utility systems to turnkey solutions. Constant review on the product lines and finding new technical solutions by combining various product lines together to offer the most cost-effective integrated solutions will bring about competence improvement and enable the Group to be more resilient under global investment environment and pharmaceutical industry challenges.

To secure the driving elements of growth momentum for the coming years, the Group has identified some key initiatives for change and improvement, namely Global Expansion Strategies, AUSTAR Transformation Initiatives, Technology-Application Focus Branding, Knowledge Acquisition Enhancement and Core-Product Manufacturing. All these initiatives for growth will consume additional resources and expenses. However, it is expected that favourable results from long-term performance will come out from such initiatives.

Order-in-take

Set out below is a breakdown of the value of the Group's order-in-take (included value-added-tax ("**VAT**")) by business segment:

	For the year ended 31 December				
	2020		2019		Change
Order-in-take by business segment	***RMB'000***	*%*	*RMB'000*	*%*	*%*
Liquid and Bioprocess System	**878,656**	**47.3%**	607,398	42.3%	44.7%
Clean Room and Automation Control and Monitoring System	**435,866**	**23.5%**	330,727	23.0%	31.8%
Powder and Solid System	**152,409**	**8.2%**	118,418	8.3%	28.7%
GMP Compliance Service	**46,818**	**2.5%**	89,284	6.2%	(47.6%)
Life Science Consumables	**323,153**	**17.4%**	267,527	18.6%	20.8%
Distribution and Agency of Pharmaceutical Equipment	**20,964**	**1.1%**	22,512	1.6%	(6.9%)
Total	**1,857,866**	**100.0%**	1,435,866	100.0%	29.4%

During the Year, the total order-in-take amounted to approximately RMB1,857.9 million, representing an increase of approximately 29.4% from approximately RMB1,435.9 million for the year ended 31 December 2019, mainly attributable to the increase in order-in-take amount of the business segments of Liquid and Bioprocess System, Clean Room and Automation Control and Monitoring System, Powder and Solid System and Life Science Consumables, but partially offset by the decrease in order-in-take amount of the business segments of GMP Compliance Service and Distribution and Agency of Pharmaceutical Equipment. In 2020, although the Group's business in February and March in general was severely affected due to travel restrictions, the Group captured business opportunities not only in new vaccine manufacture projects, but also more projects in the conventional sectors, and finally achieved a three-year continuous significant increase in the overall order-in-take volume, mainly attributable to precise business positioning as a leading technology-based pharmaceutical engineering solution provider, supported by persistent marketing efforts, the talented sales teams' efforts, and the dedication from the project execution team and manufacture center together, and covering customers' various demands of different products through providing a strong and rich pipeline of products with high quality. More business opportunities are to be obtained, especially in the vaccine and anti-infective drug business. The Group will keep on its investment in market, product development across the whole drug product lifecycle, and key initiatives for further continuous excellent growth, such as Global Expansion Strategies, AUSTAR Transformation Initiatives and etc., as well as further recruiting talents in the sales teams both in domestic and overseas, technology application team, and industry expertise, to strengthen the comprehensive competitiveness.

Liquid and Bioprocess System

Through several years of persistent endeavours, accumulation of continuous experience gained by project execution, and strongly supported by experienced key account managers and good product with high quality and customised technology application, the Group gained market recognition, and the business segment of Liquid and Bioprocess System has grown to be regional champion business. The order-in-take amount of the business segment of Liquid and Bioprocess System amounted to approximately RMB878.7 million for the Year, representing an outstanding increase of approximately RMB271.3 million or 44.7% from approximately RMB607.4 million for the year ended 31 December 2019. In the coming years, based on experience and reputation acquired in participation in the construction in most of the emergent COVID-19 vaccine design and construction projects in China, and complete the construction ahead of schedule with good quality, the Group has the strong competence to acquire the business opportunities of vaccine projects, which has a huge growth potential. The Group will also endeavour to bring the presently regional champion business unit onto the highest global level, supported by core competitiveness through integration, rich process automation experience and technical competence accumulation in biopharmaceutical projects, and business expansion in overseas market.

Clean Room and Automation Control and Monitoring System

The clean room engineering business has been extended to many life science sectors, integrating new technology, continuously-improved automation control system and its partner's latest equipment and software, introducing digital and lean consultant service to the customers and bringing the customer cost-effective solutions, and the Group has successfully achieved a high growth in the business segment of Clean Room and Automation Control and Monitoring System. The order-in-take amount of the business segment of Clean Room and Automation Control and Monitoring System amounted to approximately RMB435.9 million for the Year, representing an excellent increase of approximately RMB105.1 million or 31.8% from approximately RMB330.7 million for the year ended 31 December 2019. The Group will devote to develop Pharma IT business as a system integrator to offer comprehensive automation and digitalisation systems and has the vision to become an industry leader in the intelligent pharmaceutical research and manufacturing operation information system in Asia.

Powder and Solid System

Through several years of continuous improvement in the core values of product and knowledge accumulation in containment application technology, material handling technology etc., the Group gained a market recognition for its good quality, and experienced a high-speed growth. The order-in-take amount of the business segment of Powder and Solid System increased strongly by approximately RMB34.0 million or 28.7% from approximately RMB118.4 million for the year ended 31 December 2019 to approximately RMB152.4 million for the Year. Supported by knowledge accumulation, leveraging all kinds of internal resources and the establishment of UK facility in 2020, the Group will continuously enhance its competitiveness and seek more opportunities both in domestic and overseas markets in this business segment.

GMP Compliance Service

For the past few years, the Group has built up a good reputation in the GMP Compliance Service field through providing high quality service. However, international GMP inspection activities have been hindered by the COVID-19 pandemic, and the market competition is keen in the high-end market in the PRC. The order-in-take amount of the business segment of GMP Compliance Service decreased by approximately RMB42.5 million or 47.6% from approximately RMB89.3 million for the year ended 31 December 2019 to approximately RMB46.8 million for the Year. Accompanied by the trend of stricter regulations and standards in GMP on-site inspection, there is huge potential of increased opportunities in this business segment.

Life Science Consumables

After several years' effort on the integration of various products and services, the Group has built unique competence by offering a complete solution of Washing, Disinfection and Sterilization. This competence made the business segment of Life Science Consumables to keep a stable increase in the order-in-take amount by approximately RMB55.6 million or 20.8% from approximately RMB267.5 million for the year ended 31 December 2019 to approximately RMB323.2 million for the Year. The Group will continue to launch more diversified life science consumables and services with the latest technology to its customers. This segment maintained continuous strong growth in the past three years, and still has a huge potential growth.

Distribution and Agency of Pharmaceutical Equipment

During the Year, the business segment of Distribution and Agency of Pharmaceutical Equipment was hindered by the COVID-19 pandemic. The order-in-take amount of the business segment of Distribution and Agency of Pharmaceutical Equipment experienced a slight decrease by approximately RMB1.5 million or 6.9% from approximately RMB22.5 million for the year ended 31 December 2019 to approximately RMB21.0 million for the Year. The Group will continue to engage in the distribution of various types of high-end pharmaceutical equipments together with its joint ventures and overseas business partners.

Backlogs

Set out below is a breakdown of the Group's closing value of backlogs (excluded VAT) and the corresponding number of contracts by business segment as at 31 December 2020:

	As at 31 December 2020			
Backlogs by business segment	*Number of contracts*	*%*	*RMB'000*	*%*
Liquid and Bioprocess System	383	36.8%	619,552	49.9%
Clean Room and Automation Control and Monitoring System	238	22.9%	399,672	32.2%
Powder and Solid System	103	9.9%	102,986	8.3%
GMP Compliance Service	108	10.4%	63,556	5.1%
Distribution and Agency of Pharmaceutical Equipment	208	20.0%	56,284	4.5%
Total	1,040	100.0%	1,242,050	100.0%

Production, Execution and Organisation

The Company is building up a global organisation structure. In Europe, an organisation structure framework is being set to hold the Group's subsidiaries in Luxembourg, Germany, and Italy for a more aggressive approach on Europe manufacturing and engineering execution capacity expansion.

AUSTAR UK Limited was established in early 2020 with manufacturing and equipment design experts joining the organisation with one facility located in Huddersfield, West Yorkshire, UK, which has been accredited by ISO9001 authority in February 2021. Even though the progress was affected by the coronavirus pandemic, a successful factory acceptance test of one sterility test isolator was able to complete by remote communications with project client at this new UK facility.

Due to the unprecedented situation of COVID-19, the business of the Group's non-wholly owned subsidiary H+E Pharma GmbH ("**H+E Pharma**") and its self-owned assembly plant S-Tec GmbH in Dresden, Germany, were slower than expected in the second half of the Year. However, during such period it has allowed for the organisation to improve its commercial and technical competence to be well prepared for its revamping of process and systems, and knowledge and skills in sales and manufacturing. More talents were recruited for sales and service. The present strong pipeline of project enquiries will ensure potential for successful results in 2021.

A new manufacturing facility in Shanghai, PRC of an aggregate gross area of approximately 31,200 square-metres is under construction and expected to become operational in the first quarter of 2022. This new manufacturing facility will be 7 times larger than the Group's existing one in Shanghai. This expansion strategy is in line with our expected growth in equipment and system sales and it is believed to be able to meet the growth demand in the coming 5 years. Overall upgrading of manufacturing conditions will provide more space for new product manufacturing, and offer opportunities for change, including the production management process and production quality management; and can be further improved through enhancing the digital management level and optimising key production process in the new facility.

A new manufacturing centre located at Nanjing, PRC focusing on design and manufacturing of freeze-drying equipment integrated with pharmaceutical vial loading systems and sterile containment isolators, has become operational since the last quarter of 2020. The relocation of the Nanjing manufacturing centre has expanded our production capacity, improved equipment manufacturing capability, and will enable the Group to implement better production quality control.

A new production site building located at Shijiazhuang, PRC is under construction with the aim of improving production capacity and quality, and ultimately improving customer satisfaction. At the existing facility in Shijiazhuang, under the LEAN manufacturing guidance, AUSTAR Production System (APS) has been established with some key initiatives such as work instructions, short interval production, manufacturing time definition, operator flexibility etc., having been carried out through conducting gap analysis and establishing individual development plans to improve employee skills and acquire corresponding knowledge for the purpose of developing more multi-skilled workers.

Due to the outbreak of COVID-19, some projects planned have been postponed which resulted delay in project execution during the first half of the Year. With the strong dedication of the team and strict pandemic protection plans and control measures, by year-end, the Group's Project Execution Centre executed a total of 639 contracts with zero people infection, 344 of which have been completed, and the total revenue recognised by the Project Execution Centre recorded an increase of 35% as compared to the same period of 2019.

The Group's Project Execution Centre participated in most of the emergent COVID-19 vaccine design and construction projects in China and successfully involved and support clients to complete the construction of 10 COVID-19 vaccine facilities ahead of schedule, while ensuring the project quality, schedule and safety, passing the acceptance inspection by the National Institute for Construction and Research and NMPA and being highly appraised by our clients. At the same time, our team developed innovative technologies such as the interlock-safety protection control logics, novel categorisation and cascade control algorithm, independent process deactivation technologies for BSL-3 areas, dedicated containment technologies for enclosure structures, and innovative technologies as testing methods for biosafety CNAS certification. Through executing these vaccine projects and learning the requirements on BSL-3 labs, our team accumulated experience in the installation, commissioning, and validation activities.

The Building Information Modeling (BIM) software was successfully applied to projects in 2020, which increased working efficiency for project execution, reduced errors and improved the visualisation effects. Through continuous software application standardisation and optimisation of design process, the standard working hour for commissioning has been reduced by more than 10 per cent. A whole process simulation Factory Acceptance Test (FAT) was conducted, and system bugs could be found and fixed at an early stage, which helped time-saving during on-site installation and commissioning.

Sales and Marketing

A dedicated team in Europe for sales, marketing and business development is being established to cope with the project enquires in the region of Europe, the Middle East and North Africa. The China sales team is focusing on China market with more key account managers to support the business growth, and Specific Matter Experts and technology application team are supporting territory sales for technical support and proposal preparation and presentation.

Following the establishment of the AUSTAR Commercial Competence Platform in March 2020, six professional function roles, namely Brand Strategy, Event Organisation, Marketing Collaterals, Communications, Business Development and Knowledge Management, carried out various marketing activities in a professional manner.

Based on the Group's business positioning more precisely as a leading technology-based pharmaceutical engineering solution provider, in the second quarter of 2020, the Group formally released a new corporate image and website which started a new era of marketing and business development, and the whole package of marketing materials of the Group are being updated under this new visual identity.

Due to the COVID-19 outbreak, most of the face-to-face events were cancelled or postponed in the first half of 2020. With the improved situation in China, off-line activities gradually recovered from September 2020. The Group participated in several major events and exhibitions such as CIPM (China International Pharmaceutical Machinery Exposition), Medtec China, and Analytica China trade fair, focusing on the promotion of the AUSTAR 12 technology application capability, core products and services. The Group also attended the Asia Pharma Expo 2020 in Bangladesh in February 2020 and the Arab Pharma Manufacturers Expo in October 2020, the later of which was a virtual exhibition and presentations were made on Clean Room Engineering and Water systems.

To tackle with the communication challenges brought on by the COVID-19 pandemic, the Group has increased the use of online communication tools. During the Year, 115 professional online webinars were held covering topics across 12 technology applications, sharing information and knowledge with clients from different countries and regions. Digital marketing would be a long-term approach for business promotion.

Three workshops with design institutes were organised to allow professional architects and design firms to understand AUSTAR's process and automation capabilities. Several key government authority visits were conducted in the second half of the Year to share our knowledge in compliance and process technologies. These activities will help increase the awareness of AUSTAR's pharmaceutical technology capability and create opportunities for business cooperation.

The Group's accounts in Facebook, Twitter, Instagram, LinkedIn were established in early 2020 to share business information, and released company news in related platforms, to increase AUSTAR brand awareness in the global market. The Group's official WeChat accounts with various technology application themes to share views and knowledge in the industry have been working efficiently which provided information covering topics of project news, technology knowledge, and business development information.

An online material sharing platform "Resource Center" was formally launched and is accessible from the Group's corporate website in November 2020 with the purpose of facilitating the spread of technology and product materials and reducing the volume of paper printing; global AUSTAR viewers could now read online and apply for downloading materials after a simple online application.

The Group has also established an operational company in Malaysia with new leadership and objectives to obtain sales, service and project execution resources including talents for the Asia market other than China and East Asia. The Group also has a plan to establish a company and organisation in Taiwan as more orders have been coming from Taiwan, requiring more local resources to support sales, service, and project execution in coming years.

Research and Development

As at 31 December 2020, the Group has obtained 269 patents. During the Year, the Group obtained 44 registered patents, and applications for 99 patents are currently in progress.

The Group has been developing its own supporting software for pharmaceutical manufacturing after years of experience accumulated in the biopharmaceutical industry with the vision and strategies to facilitate the cooperation of our existing information systems partners like Werum, Siemens and Rockwell to offer more flexible and cost-effective manufacturing information and integration system.

A new Industrial Internet of Things (IIoT) solution for utility automation – "AUSTAR Smart Interconnection" has been established, where the system could meet the remote monitoring needs of clients via mobile devices through Short Message Service (SMS) and WeChat warning etc.

Cooperation with Thermo Fisher was agreed to jointly promote the pharmaceutical laboratory information system which aims to improve laboratory efficiency and data integrity while meeting laboratory compliance.

Research & Manufacturing Operation Information Integrated System (REMOIIS), an intelligent information control platform was established under the mission of providing digital factory solutions and services for various types of pharmaceutical companies, helping customers to set up a world-class pharmaceutical plant through digital transformation.

Technological breakthroughs have been made in sterile containment isolators and oral solid dosage (OSD) equipment and systems. With more industry experts joining the team including AUSTAR UK Limited, significant progress in product development has been achieved in product and technology optimisation.

In the field of Active Pharmaceutical Ingredient (API) equipment, new model of AusMill series particle-sizing milling equipment was developed; automatic sealing machines for API bulk packaging were optimised and its performance were qualified and verified by multiple projects. Performance and technical improvements have been made to equipment and systems product of wet granulation, fluidized bed, containment isolator, glove integrity testing, and Process Analysis Technology (PAT) integration technology. A vacuum filter dryer was developed through a partnership program with an European expert. Related research and development has been done in terms of BSL-3 isolator, which was applied in COVID-19 projects.

One set of co-axial mixing equipment has been developed with a wide application potential in high viscous and high shear force applications. Stainless steel bioreactor series has completed in a more extensive range from laboratory to pilot plant in 2020 and its target for the next year would be to extend more models in the range from pilot plant to industrial units.

Research cooperation with Tianjin University on "Indoor Air Quality Control" was established to carry out the "Digital Simulation Evaluation of Ventilation and Negative Pressure Isolation" – CFD simulation study in BSL-3 laboratory, which will greatly enhance the Group's technical solution capability in BSL-3 workshop/laboratory area.

The development of vial filling equipment with isolator for bioprocess single-use applications is in its final phase and is expected to be able to launch out for sales in 2021. Through the rapid development of high-end sterile chemical injectable drugs and biologics drugs, demand for laboratory and pilot production freeze dryers for clinical trials is increasing, the Group's newly developed lab and pilot-scale freeze dryers could meet its increasing high-end market demand.

Following the completion of the research and development (R&D) project of clean room garment validation in the first half of 2020, autoclavable clean room garments by AUSTAR's own-brand was completed and launched by the end of the Year. At the same time, a clean room garment information management system and the clean room garment validation service were established to form a complete clean room protection gear solution for delivery to customers.

Prospects

The Group has been developing 12 technology applications in our competence and knowledge model and individual specific technology application teams are being gradually established in the following 2 to 3 years. By the end of 2020, 8 technology application teams have been developed, namely Pharmaceutical Automation and Digitalization, Cleaning, Sterilization and Disinfection, Clean Utilities, Biopharma Process and Technology, Containment Technology, Cleanroom/Heating Ventilation and Air Conditioning (HVAC)/Environmental Monitoring System (EMS)/Building Management System (BMS), Filling, Freeze-drying and Inspection, and Biosafety Technology and Facilities, regular workshops were held for the purpose of better unification of technology capability of individual product lines into comprehensive technology solutions. It is believed that, with these professional technical application teams, more up-to-date technology solutions can be provided to the clients.

Liquid and Bioprocess System

Following the impact of COVID-19 and the eagerness for vaccine, the order-in-take increased to a historic level; the extremely short expected delivery times of these project pushed the Company to be more flexible in the management process and to evolve accordingly to adapt the Group to deal with such emergency occasions. It is believed that, the vaccine industry will continue to be a hot topic and a strong pipeline of the COVID-19 vaccine and other vaccine projects is foreseeable. With the new manufacturing facility in Shanghai expected to be operational in the first quarter of 2022, production and delivery efficiency will be much improved to better cope with market needs.

The Company has obtained orders for bioprocess preparation systems for COVID-19 vaccine projects in China. Through the Group's Bioprocess System Engineering business unit, the business' mid-long-term objectives are to bring our presently regional champion business unit onto the highest global level. Our goal is to become a global top-tier bioprocess equipment and system supplier. With more and more experience gained by project execution, we believe the business is able to develop more solid technical competence and the offerings would become more specific and more adaptable to specific needs, and as a result, more market opportunities and competence upgrade are foreseeable.

Powder and Solid System

The civil health concept has been promoted due to the COVID-19 pandemic in 2020 in China and worldwide, which would accelerate the revolution of healthcare and life sciences industries, and bring opportunities to this business segment. Under the influence of national concentrated procurement policy in China, most qualified and capable successful bidders, local enterprises in China have increased their investment in new drugs R&D, which will bring more opportunities to laboratory-scale equipment and imported production equipment. The business extension from formulations to API manufacturing, and the business extension from existing API to formulations manufacturing was still one of the key trends of pharmaceutical industry development in China in 2020.

The business extension from CRO to CDMO, from CMO to CDMO, and from conventional pharmaceutical companies to CDMO will continue to develop following the development trend of the previous year. The demand for projects seeking profit margin improvement from automation upgrading, continuous manufacturing and streamlined production system have been growing rapidly. Development of innovative drugs will bring about more CAPEX investment. The pharmaceutical market will be further optimised with more sophisticated and advanced APIs and OSD facilities to be built.

The demand for high toxic/potent drugs is still increasing, and hormones manufacturers have started to pull together of upper/lower stream process to enhance the competitiveness which is a competitive edge for AUSTAR. The success of the Powder and Solid System business segment is heavily dependent on its knowledge-set of containment application technology, material handling technology and formulation process system engineering and supported by fundamental knowledge of occupational safety compliance, pharmaceutical quality compliance and automation control engineering.

The successful installation of a wet milling preparation system embedded with a German partner's equipment is an important milestone for this business segment to demonstrate its capacity to offer particle-sizing system to drug formulation development companies and generic companies.

During the Year, one BSL-3 isolator was manufactured and delivered and tested successfully at a COVID-19 facility. We have been getting new orders of such BSL-3 isolator on this COVID-19 facility since the first one was installed. The Group's knowledge in sterility and containment leads us to differentiate from our competitors.

One OSD manufacture system and material management turnkey project consisting of the whole material receiving, transferring, crushing, screening, distribution, granulation, tablet compressing, and coating equipment and material management system would be delivered to a CDMO platform in 2021. The fully automated and unmanned production and operation mode will give full play to AUSTAR's technology capability in terms of production system automation and information system implementation according to international standards.

Clean Room and Automation and Monitoring System

In January 2020, the Group's clean room engineering business and Net-Pharma Group in Spain reached a strategic cooperation agreement in engineering design and project execution, and together with the support by the Group's European team, will largely improve the response speed and project cost advantages to projects in some territories in our global market.

The clean room engineering business has extended to more life-sciences sectors such as animal laboratory research laboratories, medical device facilities, OSD workshops and soft capsule workshops. Through the integration of technical competence of HVAC and decontamination technology, automation controls, and informatisation management, the Group aims to be a turnkey solution provider integrating engineering design, equipment and systems, site installation and GEP project management.

Based on the continuous accumulation of experiences relating to technical process, regulations, lean manufacturing, excellent operation and validation, and through working with industry leading partners, AUSTAR could provide pharmaceutical companies with full life cycle digital solutions from digitalisation strategy consulting to digitalisation application implementation and after-sales service, which cover various aspects from warehouse to manufacturing, quality and equipment maintenance etc., to help clients shorten the time to market, improve production efficiency, quality and safety to realise production costs saving and productivity improvements.

During the Year, the Group increased investment in digital and lean consulting business and establishing a digital and lean consulting team. It is believed that through the successful implementation of some consulting projects and experience accumulation, more cost-effective solutions can be provided to our clients in the future.

A REMOIIS platform to offer unique, flexible, and versatile solutions to clients was established in early 2020. This platform can allow the Group to integrate automation control and informatisation capabilities to facilitate pharmaceutical companies to build and become world-class informatised research and manufacturing enterprises with multifunctional, multi-products and modular design concept. Based on the "intelligent factory software and hardware integration" solution, with the industrial internet cloud platform as the core carrier and linking world-leading technical partners to form a new manufacturing ecology of "smart manufacturing + cloud", the Clean Room and Automation and Monitoring System business segment has a vision to become an industry leader in the intelligent pharmaceutical research and manufacturing operation information system in Asia.

GMP Compliance Service

With the promulgation of the PRC "Drug Administration Law" and the related regulatory science being gradually accepted by the leading provincial authorities, a higher compliance level will be required by the pharmaceutical industry. Furthermore, Good Manufacturing Practice (GMP) is not only implemented as a necessity to survival of a pharmaceutical company, but it also closely relates to competitiveness such as quality culture.

As the biopharmaceutical such as vaccine products and Advanced Therapy Medicinal Products (AMTPs) sectors are booming in the recent years, many CROs have acquired new business/function as CDMOs such that a 'GMP-like' manufacturing environment during clinical trial phase I and II, or a full GMP manufacturing environment, have to be implemented. One of the challenges for CRO developing from a research-based team to be an organisation of CDMO or CMO is the lack of qualified experts for manufacturing with GMP knowledge. Thus, the GMP consulting service has becoming ever needed by the market. To create a complete solution to the customer, the GMP Compliance Service business segment has developed a new service portfolio including CQV, PQS, GEP and TTM. With the above service portfolio, the customer is able to receive a quality service for a green field project with consultation of CQV, PQS and TTM as early as the conceptual design phase, the GEP service during the construction period, and the CQV execution as the verification to ensure the project is closed with minimum non-compliance risks.

With professional expertise and resources, the GMP Compliance Service business segment has developed Risk Management Consulting and MAH supporting services of PQS to cope with the current trend of the industry. Those services focus on particular quality practices. It demonstrates the capability of the business segment being able to provide both high level consultancy and operational supporting services respectively to support a quality system. Not only relying on internal resource, the business segment has worked with a AUSTAR partner to combine a digital solution, iRisk, to its risk management consulting services.

Even though the COVID-19 pandemic is a global challenge to all countries, it rang the alarm for many emerging countries to consider to acquire their own reliable supply of vaccines. As China holds multiple COVID-19 vaccines (both approved to the market or under clinical trials), many South-East Asian countries have already encouraged their local pharmaceutical companies to collaborate with Chinese vaccine manufacturers. The GMP Compliance Service business segment has provided one or multiple compliance services including but not limited to CQV consultancy and execution, PQS consultancy, biosafety review, design review, or GEP consultancy to eight COVID-19 vaccine manufacturers.

Life Science Consumables

The COVID-19 outbreak has brought about the awareness of biosafety. One key element for biosafety measures is to ensure that the facility are designed and maintained with proper decontamination concept, design, consumable, equipment and process installed. The core-competence of the Life Science Consumables business segment is decontamination in Washing, Disinfection and Sterilization.

During the Year, the Life Science Consumables business segment completed several successful cases of package orders through the integration of cleaning process development, cleaning validation and GMP washer integrated solutions, achieving a high share of GMP washer in the high-end market. The cleanroom garment OEM project has been completed, which is expected to offer more choices including our own brand products in line with customers' diversified demands. The service business concept based on contamination control strategy is helping this business segment on the application of Washing, Disinfection and Sterilization, opening a page of opportunities for further growth by offering gap analysis services and supporting services for overall decontamination of facilities.

RESULTS OF OPERATIONS

Revenue

The Group provides its services and products under six business segments, namely, (1) Liquid and Bioprocess System, the major types of which include pharmaceutical water system, and liquid preparation and bioprocess system; (2) Clean Room and Automation Control and Monitoring System, the major types of which include clean room enclosure system, and automation control and monitoring system; (3) Powder and Solid System; (4) GMP Compliance Service; (5) Life Science Consumables; and (6) Distribution and Agency of Pharmaceutical Equipment.

For the Year, the Group's total revenue amounted to approximately RMB1,296.0 million, representing an increase of approximately 23.5% over 2019, primarily attributable to the increase in revenue from the business segments of Liquid and Bioprocess System, Life Science Consumables, Powder and Solid System, and Clean Room and Automation Control and Monitoring System, and which was slightly offset by the decrease in revenue from the business segment of Distribution and Agency of Pharmaceutical Equipment and GMP Compliance Service.

The following table sets forth, for the years ended 31 December 2020 and 2019, the breakdown of the Group's revenue by business segment:

	For the year ended 31 December				
	2020		2019		Change
Revenue by business segment	***RMB'000***	***%***	*RMB'000*	*%*	*%*
Liquid and Bioprocess System	**588,488**	**45.4%**	435,980	41.6%	35.0%
Clean Room and Automation Control and Monitoring System	**264,436**	**20.4%**	250,875	23.9%	5.4%
Powder and Solid System	**120,525**	**9.3%**	82,963	7.9%	45.3%
GMP Compliance Service	**52,729**	**4.1%**	53,641	5.1%	(1.7%)
Life Science Consumables	**250,170**	**19.3%**	203,586	19.4%	22.9%
Distribution and Agency of Pharmaceutical Equipment	**19,632**	**1.5%**	21,976	2.1%	(10.7%)
Total	**1,295,980**	**100.0%**	1,049,021	100.0%	23.5%

Liquid and Bioprocess System

The Group's revenue from the business segment of Liquid and Bioprocess System increased significantly by approximately RMB152.5 million or 35.0% from approximately RMB436.0 million for the year ended 31 December 2019 to approximately RMB588.5 million for the Year. The increase was mainly attributable to the increase in the closing amount of backlog as at 31 December 2019 and the increase in the order-in-take in the business segment of Liquid and Bioprocess System for the Year, the new contribution of revenue from the non-wholly owned subsidiary H+E Pharma, and high project execution efficiency with good quality in the COVID-19 vaccine projects.

Clean Room and Automation Control and Monitoring System

The Group's revenue from the business segment of Clean Room and Automation Control and Monitoring System increased by approximately RMB13.6 million or 5.4% from approximately RMB250.9 million for the year ended 31 December 2019 to approximately RMB264.4 million for the Year. The increase was mainly attributable to the increase in the closing amount of backlog as at 31 December 2019 and the increase in the order-in-take in the business segment of Clean Room and Automation Control and Monitoring System for the Year, a part of which was recognised as revenue.

Powder and Solid System

The Group's revenue from the business segment of Powder and Solid System had a substantial increase by approximately RMB37.6 million or 45.3% from approximately RMB83.0 million for the year ended 31 December 2019 to approximately RMB120.5 million for the Year. The increase was mainly attributable to the increase in the closing amount of backlog as at 31 December 2019 and the increase in the order-in-take in the business segment of Powder and Solid System for the Year, a part of which was recognised as revenue.

GMP Compliance Service

The Group's revenue from the business segment of GMP Compliance Service decreased slightly by approximately RMB0.9 million or 1.7% from approximately RMB53.6 million for the year ended 31 December 2019 to approximately RMB52.7 million for the Year. The decrease was mainly due to the decrease in the order-in-take in the business segment of GMP Compliance Service for the Year caused by promotional activities hindered by the COVID-19 pandemic, and the keen competition in the high-end market in the PRC.

Life Science Consumables

The Group's revenue from the business segment of Life Science Consumables increased by approximately RMB46.6 million or 22.9% from approximately RMB203.6 million for the year ended 31 December 2019 to approximately RMB250.2 million for the Year, which was primarily attributable to the core competence by offering a complete solution of Washing, Disinfection and Sterilization, and continuous launching of more diversified life science consumables and services with the latest technology.

Distribution and Agency of Pharmaceutical Equipment

Hindered by the COVID-19 pandemic, the Group's revenue from the business segment of Distribution and Agency of Pharmaceutical Equipment decreased by approximately RMB2.3 million or 10.7% from approximately RMB22.0 million for the year ended 31 December 2019 to approximately RMB19.6 million for the Year. The Group will continue to explore and distribute various types of high-end pharmaceutical equipment.

The following table sets forth the breakdown of the Group's revenue by geographical regions for the years ended 31 December 2020 and 2019:

	For the year ended 31 December				
	2020		2019		Change
Revenue	***RMB'000***	*%*	*RMB'000*	*%*	*%*
Mainland China	**1,219,015**	**94.1%**	964,135	91.9%	26.4%
Other locations	**76,965**	**5.9%**	84,886	8.1%	(9.3%)
Total	**1,295,980**	**100.0%**	1,049,021	100.0%	23.5%

The Group derived its revenue mainly from customers in Mainland China, which accounted for approximately 94.1% of the total revenue for the Year (2019: approximately 91.9%).

Cost of sales

The Group's cost of sales increased by approximately RMB207.7 million or 27.2% from approximately RMB764.8 million for the year ended 31 December 2019 to approximately RMB972.5 million for the Year. Such increase was in line with the increase in revenue.

Gross profit and gross profit margin

The Group's gross profit increased by approximately RMB39.3 million or 13.8% from approximately RMB284.2 million for the year ended 31 December 2019 to approximately RMB323.5 million for the Year, which was mainly attributable to the increase in gross profit from the business segment of Liquid and Bioprocess System, Life Science Consumables, and Powder and Solid System, but partially offset by the decrease from the business segment of GMP Compliance Service, Clean Room and Automation Control and Monitoring System, and Distribution and Agency of Pharmaceutical Equipment. The gross profit margin decreased from approximately 27.1% for the year ended 31 December 2019 to approximately 25.0% for the Year, which was due to the decrease in gross profit margin from the five business segments, except Life Science Consumables.

The following table sets forth the breakdown of the Group's gross profit margin by business segment for the years indicated:

	For the year ended 31 December					
	2020			2019		
Gross profit margin by business segment	***RMB'000***	*%*	**Gross profit margin** *%*	*RMB'000*	*%*	Gross profit margin *%*
Liquid and Bioprocess System	**90,251**	**27.9%**	**15.3%**	74,633	26.3%	17.1%
Clean Room and Automation Control and Monitoring System	**57,197**	**17.7%**	**21.6%**	58,895	20.7%	23.5%
Powder and Solid System	**34,111**	**10.5%**	**28.3%**	27,915	9.8%	33.6%
GMP Compliance Service	**25,975**	**8.0%**	**49.3%**	28,116	9.9%	52.4%
Life Science Consumables	**109,351**	**33.8%**	**43.7%**	86,645	30.5%	42.6%
Distribution and Agency of Pharmaceutical Equipment	**6,645**	**2.1%**	**33.8%**	8,040	2.8%	36.6%
Total	**323,530**	**100.0%**	**25.0%**	284,244	100.0%	27.1%

Notes:

1. Gross profit margin by business segment represents gross profit divided by revenue of the respective business segment for the year.

2. Total gross profit margin represents gross profit divided by total revenue for the year.

Liquid and Bioprocess System

The gross profit from the business segment of Liquid and Bioprocess System increased by approximately RMB15.6 million or 20.9% from approximately RMB74.6 million for the year ended 31 December 2019 to approximately RMB90.3 million for the Year. The gross profit margin from the business segment of Liquid and Bioprocess System decreased from approximately 17.1% for the year ended 31 December 2019 to approximately 15.3% for the Year, which was mainly due to prolonged execution time for certain projects undertaken by the Group during the Year, which were affected by the COVID-19 pandemic, resulting an increase in budgeted costs. The Group will continuously focus on project execution management and cost control measures, supported by introducing new management software to reduce errors throughout the project execution process, and accumulation of continuous experience gained by project execution.

Clean Room and Automation Control and Monitoring System

The gross profit from the business segment of Clean Room and Automation Control and Monitoring System decreased slightly by approximately RMB1.7 million or 2.9% from approximately RMB58.9 million for the year ended 31 December 2019 to approximately RMB57.2 million for the Year. The gross profit margin from the business segment of Clean Room and Automation Control and Monitoring System decreased from approximately 23.5% for the year ended 31 December 2019 to approximately 21.6% for the Year, which was primarily due to the keen market competition in the product lines of Clean Room and Automation Control and Monitoring System, and the Group undertook several projects with lower gross profit margin for the Year. The Group will continuously make better control over cost management through implementing LEAN-based manufacturing management.

Powder and Solid System

The Group's gross profit from the business segment of Powder and Solid System increased by approximately RMB6.2 million or 22.2% from approximately RMB27.9 million for the year ended 31 December 2019 to approximately RMB34.1 million for the Year. The gross profit margin from the business segment of Powder and Solid System decreased from approximately 33.6% for the year ended 31 December 2019 to approximately 28.3% for the Year, primarily due to several projects undertaken during the Year which provided new products and carried a relatively lower gross profit margin for the purpose of promoting our new products and penetrating into the market.

GMP Compliance Service

The Group's gross profit from the business segment of GMP Compliance Service decreased by approximately RMB2.1 million or 7.6% from approximately RMB28.1 million for the year ended 31 December 2019 to approximately RMB26.0 million for the Year. The gross profit margin from the business segment of GMP Compliance Service decreased from approximately 52.4% for the year ended 31 December 2019 to approximately 49.3% for the Year, which was mainly due to prolonged execution time for certain projects undertaken by the Group during the Year, which was affected by the COVID-19 pandemic, and the undertaking of projects with a relatively lower gross profit in light of the keen market competition for the Year. The Group will keep on providing high quality service and improving cost control management.

Life Science Consumables

The Group's gross profit from the business segment of Life Science Consumables increased substantially by approximately RMB22.7 million or 26.2% from approximately RMB86.6 million for the year ended 31 December 2019 to approximately RMB109.4 million for the Year. The gross profit margin from the business segment of Life Science Consumables increased from approximately 42.6% for the year ended 31 December 2019 to approximately 43.7% for the Year, which was mainly attributable to the continuously-improved cost control.

Distribution and Agency of Pharmaceutical Equipment

The Group's gross profit from the business segment of Distribution and Agency of Pharmaceutical Equipment decreased by approximately RMB1.4 million or 17.4% from approximately RMB8.0 million for the year ended 31 December 2019 to approximately RMB6.6 million for the Year. The gross profit margin from the business segment of Distribution and Agency of Pharmaceutical Equipment decreased from approximately 36.6% for the year ended 31 December 2019 to approximately 33.8% for the Year, which was mainly due to the block to the international business caused by the COVID-19 pandemic. The Group, together with its joint ventures and overseas business partners, will keep on engaging in the distribution of various types of high-end pharmaceutical equipment.

Other income

Other income decreased by approximately RMB1.1 million or 12.2% to approximately RMB8.0 million for the Year from approximately RMB9.2 million for the year ended 31 December 2019, mainly due to the decrease in the subsidies granted by local government authorities of the PRC in the Year.

Other gains – net

Other gains – net increased by approximately RMB6.8 million to approximately RMB7.0 million for the Year from approximately RMB0.1 million for the year ended 31 December 2019, mainly attributable to a record of currency exchange gains of approximately RMB4.4 million for the Year as compared to currency exchange losses of approximately RMB2.4 million for the year ended 31 December 2019, arising from retranslation of foreign currency denominated trade related balances.

Selling and marketing expenses

Selling and marketing expenses increased by approximately RMB11.6 million or 8.5% to approximately RMB148.7 million for the Year from approximately RMB137.1 million for the year ended 31 December 2019. The increase was mainly due to the increase in the staff costs by approximately RMB28.2 million and warranty provision by approximately RMB2.1 million but partially offset by the decrease in the promotion expenses by approximately RMB9.4 million and travel expenses by approximately RMB9.6 million.

Administrative expenses

Administrative expenses decreased by approximately RMB10.0 million or 9.2% to approximately RMB98.7 million for the Year from approximately RMB108.7 million for the year ended 31 December 2019. The decrease was primarily attributable to the decrease in the impairment of inventories by approximately RMB13.1 million, but partially offset by the recognisation of the impairment of goodwill by approximately RMB3.1 million. The goodwill is attributable to acquisition of the Group's non-wholly owned subsidiary H+E Pharma, and the impairment for the Year is mainly due to the descending prospective income by the consideration of COVID-19.

Research and development expenses

As at 31 December 2020, the Group had 47 research and development personnel which accounted for approximately 3.3% of the Group's total number of employees. The Group cooperated with well-known academic institutions in order to upgrade the Group's technology level. The Group's research and development expenses increased by approximately RMB5.7 million or 13.4% to approximately RMB48.3 million for the Year from approximately RMB42.6 million for the year ended 31 December 2019, mainly due to the increase of materials utilised in more research projects by approximately RMB4.9 million. The Group will make continuous efforts to enhance research and development activities.

Finance income – net

Finance income – net decreased from approximately RMB2.0 million for the year ended 31 December 2019 to approximately RMB0.3 million for the Year, which was mainly due to the decrease of the interest income of approximately RMB2.6 million, but partially offset by the decrease of finance cost of approximately RMB0.9 million.

Share of net profit of investments accounted for using the equity method

The Group's share of net profit of investments accounted for using equity method increased by approximately RMB0.3 million, from approximately RMB10.2 million for the year ended 31 December 2019 to approximately RMB10.5 million for the Year, primarily due to the increase in profit contribution from the joint venture, STERIS-AUSTAR Pharmaceutical Systems Hong Kong Limited ("**STERIS-AUSTAR JV**") and the associates, ROTA Verpackungstechnik GmbH & Co. KG and ROTA Verpackungstechnik Verwaltungsgesellschaft mbH, by approximately RMB2.3 million and RMB0.3 million respectively, but partially offset by the decrease in profit from the joint venture, PALL-AUSTAR JV, by approximately RMB2.4 million, due to the increase in impairment by approximately RMB5.5 million for PALL-AUSTAR JV which was recognised as the impairment for the manufacture facility in connection with its relocation.

Profit before income tax

Profit before income tax increased substantially by approximately RMB29.3 million to approximately RMB41.5 million for the Year from approximately RMB12.2 million for the year ended 31 December 2019, which was primarily due to the factors as described above in this section.

Income tax expense

Income tax expense increased by approximately RMB5.1 million, from approximately RMB4.7 million for the year ended 31 December 2019 to approximately RMB9.9 million for the Year, which was mainly due to the increase of profit before income tax of approximately RMB29.3 million.

Profit for the year

Profit for the year increased substantially by approximately RMB24.1 million to approximately RMB31.6 million for the Year from approximately RMB7.5 million for the year ended 31 December 2019, which was primarily attributable to the factors as described above in this section.

LIQUIDITY AND FINANCIAL RESOURCES

The following table summarises the Group's consolidated statement of cash flows:

	For the year ended 31 December	
	2020	2019
	RMB'000	*RMB'000*
Net cash generated from operating activities	**52,224**	37,793
Net cash used in investing activities	**(59,806)**	(22,087)
Net cash used in financing activities	**(5,513)**	(20,694)
Net decrease in cash and cash equivalents	**(13,095)**	(4,988)

For the Year, the Group had net cash generated from operating activities of approximately RMB52.2 million mainly attributable to:

i. the profit before income tax for the Year of approximately RMB41.5 million, plus the depreciation of property, plant, and equipment of approximately RMB12.0 million, the depreciation of right-of-use assets of approximately RMB16.4 million, net impairment losses on financial assets and contract assets of approximately RMB12.1 million, the amortisation of intangible assets of approximately RMB3.5 million, and the impairment of goodwill of approximately RMB3.1 million, and minus share of net profit of investments accounted for using the equity method of approximately RMB10.5 million, and deferred income of approximately RMB1.8 million;

ii. plus the increase in contract liabilities of approximately RMB99.9 million, and the decrease in trade and other receivables of approximately RMB61.0 million; and

iii. partially offset by the increase in pledged bank deposits of approximately RMB39.1 million, contract assets of approximately RMB54.4 million, inventories of approximately RMB47.3 million, and the decrease in trade and other payables of approximately RMB41.7 million.

For the Year, the Group had net cash used in investing activities of approximately RMB59.8 million, which was mainly attributable to:

i. payment for land use right of approximately RMB39.3 million;

ii. purchase of property, plant, equipment and intangible assets of approximately RMB27.9 million; and

iii. partially offset by dividend received from the joint venture, STERIS-AUSTAR JV, of approximately RMB7.1 million.

For the Year, the Group had net cash used in financing activities of approximately RMB5.5 million mainly due to repayments of borrowings of approximately RMB35.0 million, principal elements of lease payments of approximately RMB12.6 million, interest paid of approximately RMB2.8 million, but partially offset by the proceeds from borrowings of approximately RMB45.0 million.

As at 31 December 2020 and 31 December 2019, the Group had cash and cash equivalents of approximately RMB177.9 million and RMB191.1 million respectively, and balances of pledged bank deposits under the current assets were approximately RMB127.9 million and RMB88.8 million respectively.

Net current assets

The Group's net current assets and other assets as at 31 December 2020 had decreased by approximately RMB10.8 million, from approximately RMB294.4 million as at 31 December 2019 to approximately RMB283.6 million as at 31 December 2020.

As at 31 December 2020, the Group's total current assets amounted to approximately RMB1,089.3 million, which was an increase of approximately RMB161.1 million as compared with approximately RMB928.2 million as at 31 December 2019. The increase was primarily attributable to:

i. the increase in contract assets of approximately RMB52.4 million, inventories of approximately RMB45.7 million, pledged bank deposits of approximately RMB39.1 million, trade and notes receivables of approximately RMB28.3 million, and prepayments and other receivables of approximately RMB8.7 million, which was mainly attributable to the fast business expansion during the Year; and

ii. partially offset by the decrease in cash and cash equivalents of approximately RMB13.1 million.

As at 31 December 2020, the Group's total current liabilities amounted to approximately RMB805.7 million, which was an increase of approximately RMB171.9 million as compared with approximately RMB633.8 million as at 31 December 2019. The increase was primarily due to the increase in contract liabilities of approximately RMB99.9 million, trade and other payables of approximately RMB61.2 million, short-term borrowings of approximately RMB10.0 million and lease liabilities of approximately RMB0.8 million, but partially offset by the decrease in current income tax liabilities of approximately RMB0.1 million.

Borrowings and gearing ratio

As at 31 December 2020, the total interest-bearing borrowings amounted to approximately RMB30.0 million, represented an increase of approximately RMB10.0 million. The secured short-term bank borrowings amounted to RMB20.0 million and bear interest rate of 4.57% (2019: 4.57%), the guaranteed short-term bank borrowings amounted to RMB10.0 million and bear interest rate of 3.65% (2019: Nil).

The Group's gearing ratio is approximately 12.7% as at 31 December 2020 (31 December 2019: 10.2%). The ratio is calculated based on the total debts as of the respective dates divided by total equity as of the respective dates and multiplied by 100%.

Pledged assets

As at 31 December 2020, in addition to pledged bank deposits of approximately RMB127.9 million, the Group had buildings and right-of-use assets having a total carrying amount of approximately RMB5.6 million and approximately RMB5.2 million respectively (31 December 2019: approximately RMB6.4 million and approximately RMB5.4 million respectively) which are pledged as security for short-term bank borrowings with carrying amount of approximately RMB20.0 million (31 December 2019: approximately RMB20.0 million).

Contingent liabilities

The Group did not have any material contingent liabilities as at 31 December 2020 (31 December 2019: Nil).

HUMAN RESOURCES

As at 31 December 2020, the Group had 1,404 full-time employees for research and development, sales and marketing, administration, project management and execution and manufacturing, increased by 92 employees as compared to the number of employees as at 31 December 2019. The employee costs (including the Directors' remuneration) were approximately RMB308.8 million for the Year, which was an increase of approximately 36.8% as compared with approximately RMB225.7 million for the year ended 31 December 2019.

Employee costs of the Group increased mainly due to the Group's increase in its number of employees for the purpose of expanding the Group's operational scale and the Group's efforts in ensuring the attractiveness of its employee remuneration packages in accordance with the general standards set out in the Group's remuneration policy.

The Group regularly reviews its remuneration policies and employee benefits with reference to market practices and performance of individual employees. The remuneration of the employees and the Directors are determined by reference to their responsibilities, professional qualification, industry experience and performance. The emolument policy of the Directors is recommended by the remuneration committee of the Board and determined by the Board.

The Group has established various welfare plans including the provision of basic medical insurance, unemployment insurance and other relevant insurance for employees who are employed by the Group pursuant to the PRC rules and regulations and the existing policy requirements of the local government. The Group has also made contributions to statutory mandatory provident fund scheme for its employees in Hong Kong.

The Group has formulated provisions and rules on employees' training, such as the "Training and Development Control Procedures" and the "Training Management Control Procedures", detailing the implementation of training and accountability in training. In addition, in the "Staff Handbook", the Group divides training into orientation, overseas training, management training, professional skills training and corporate culture training.

CAPITAL COMMITMENT

Capital expenditure of property, plant and equipment and intangible assets which have been contracted for but not yet incurred as of 31 December 2020 amounted to approximately RMB105.0 million, which was mainly occurred by the construction contracts of the new facility in Shanghai, signed and executed partially.

FOREIGN EXCHANGE RISK

The Group mainly operates in the PRC and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to Euro, US dollar and HK dollar. Foreign exchange risk arises from the ending balances of the internal borrowings amounted the Group's subsidiaries which have different functional currencies, the foreign currencies held by the Group's subsidiaries and offices and the sales of the Group's products and services to overseas customers who settle payments in foreign currencies. The Directors do not consider the foreign exchange rate risks as material to the Group and therefore, did not carry out any financial instruments such as forward currency exchange contracts to hedge the risks.

USE OF NET PROCEEDS FROM THE COMPANY'S INITIAL PUBLIC OFFERING

The Company was incorporated in the Cayman Islands on 9 January 2014 as an exempted company with limited liability under the Companies Law of the Cayman Islands.

On 7 November 2014, the Shares were first listed on the Stock Exchange following the completion of the Company's initial public offering ("**IPO**"). The net proceeds received by the Company from the IPO amounted to approximately HK$411.8 million (after deducting underwriting commissions and all related expenses) ("**Net Proceeds**").

The Company has, and will continue to utilise the Net Proceeds for the purposes consistent with the section heeded "Future plans and use of proceeds" as set out in the prospectus of the Company dated 28 October 2014 ("**Prospectus**"). As at 31 December 2020, the Group had utilised the Net Proceeds as set out in the table below:

Intended use	Proposed percentage of utilisation	Proposed utilisation amount		Utilised amount up to 31 December 2020		Unutilised amount as at 31 December 2020		Expected timeline for the unutilised Net Proceeds
		HK$ in million	*RMB in million*	*HK$ in million*	*RMB in million*	*HK$ in million*	*RMB in million*	
Establishment of the Shijiazhuang R&D and Production Centre	39.6%	163.1	126.7	78.5	49.5	84.6	77.2	Note 1
Development of the Songjiang Production Centre	14.2%	58.4	45.4	47.4	36.2	11.0	9.2	Note 2
Expansion of sales and marketing network	6.8%	28.0	21.8	28.0	21.8	–	–	N/A
Research and development activities	9.5%	39.1	30.4	39.1	30.4	–	–	N/A
Potential acquisition of interests in companies possessing critical product technologies in the pharmaceutical equipment, process system and service market	20%	82.4	64.0	44.7	29.6	37.7	34.4	Subject to any potential targets identified
Working capital and other general corporate purposes	9.9%	40.8	31.7	40.8	31.7	–	–	N/A
Total	**100.0%**	**411.8**	**320.0**	**278.5**	**199.2**	**133.3**	**120.8**	

1. Establishment of the Shijiazhuang R&D and Production Centre – the Company had planned to use approximately RMB126.7 million (equivalent to approximately HK$163.1 million) of the Net Proceeds for establishment of the Shijiazhuang R&D and Production Centre. The Group has paid all the expenses for the acquisition of the land use right of a piece of land in the Shijiazhuang High-New Technology Industry Development Zone, and obtained the land use right certificate during the Year. The development plans of the Group's Shijiazhuang R&D and Production Centre on such land set out in the section headed "Business" in the Prospectus have been under review and in the progress of rescheduling. It is expected that the unutilised Net Proceeds of approximately RMB77.2 million (equivalent to approximately HK$84.6 million) allocated for the establishment of the Shijiazhuang R&D and Production Centre will start to be utilised in 2021.

2. Development of the Songjiang Production Centre – the Company had planned to use approximately RMB45.4 million (equivalent to approximately HK$58.4 million) of the Net Proceeds for development of the Songjiang Production Centre. During the Year, the Group has successfully acquired a new parcel of land located also in the Songjiang area and obtained the land use right certificate for the construction of new facilities in preparation for the relocation of the existing facilities in Songjiang area. On 23 October 2020, the Group entered into a general construction agreement with a contractor for the provision of construction services for the new production plants, offices and other facilities to be constructed on such land. The construction works had been commenced and it is expected to be completed in the third quarter of 2021. It is expected that the unutilised Net Proceeds of approximately RMB9.2 million (equivalent to approximately HK$11.0 million) allocated for development of the Songjiang Production Centre will be utilised in 2021.

The Company intends to continue to apply the Net Proceeds in the manner consistent with that mentioned above. Nonetheless, the Directors will constantly evaluate the Group's business objectives and may change or modify the plans against changing market conditions to ascertain the business growth of the Group.

The unutilised Net Proceeds brought forward from the previous year amounted to approximately HK$204.3 million. The unutilised Net Proceeds as at 31 December 2020 of approximately HK$133.3 million has been deposited into the banks.

Events occurring after the reporting period

On 11 February 2021, the Group entered into an agreement with Beckman Coulter Hong Kong Limited ("**Purchaser**"), which indirectly owned 40% of the issued shares of PALL-AUSTAR JV, and PALL-AUSTAR JV pursuant to which the Purchaser conditionally agreed to purchase, and the Group conditionally agreed to sell, the 60% of the issued shares of PALL-AUSTAR JV held by the Group at an aggregate consideration of US$34,500,000 subject to adjustments ("**Disposal**").

As of the date on which these consolidated financial statements were authorised for issue, completion of the Disposal has not yet taken place. Upon completion of the Disposal, the Group will cease to have any equity interest in PALL-AUSTAR JV.

FINAL DIVIDEND

The Directors do not recommend the payment of any dividend for the Year (2019: Nil).

CLOSURE OF REGISTER OF MEMBERS

For determining the entitlement to attend and vote at the forthcoming annual general meeting of the Company scheduled to be held on Friday, 28 May 2021 ("**2021 AGM**"), the register of members of the Company will be closed from Tuesday, 25 May 2021 to Friday, 28 May 2021, both days inclusive, during which period no transfer of Shares will be registered. In order to be eligible to attend and vote at the 2021 AGM, all transfer of Shares accompanied by the relevant shares certificates must be lodged with the Company's branch share registrar and transfer office in Hong Kong, Tricor Investor Services Limited at Level 54, Hopewell Centre, 183 Queen's Road East, Hong Kong by 4:30 p.m. on Monday, 24 May 2021.

CORPORATE GOVERNANCE

The Company recognises the importance of good corporate governance for enhancing the management of the Company as well as preserving the interests of the shareholders of the Company ("**Shareholders**") as a whole. The Company has adopted and committed to a code of corporate governance, containing the code provisions set out in the Corporate Governance Code ("**Corporate Governance Code**") contained in Appendix 14 to the Rules Governing the Listing of Securities on the Stock Exchange ("**Listing Rules**").

Save for the deviation from code provision A.2.1 of the Corporate Governance Code as described below, the Board considers that, the Company has complied, to the extent applicable and permissible, with the code provisions as set out in the Corporate Governance Code during the Year and the Directors will use their best endeavours to procure the Company to comply with such code and make disclosure of deviation from such code in accordance with the Listing Rules.

Code provision A.2.1 of the Corporate Governance Code requires the responsibilities between the chairman and chief executive officer should be separated and should not be performed by the same individual. Mr. Ho Kwok Keung, Mars assumes the role of both of the chairman of the Board and the Chief Executive Officer. The Board believes that vesting both the roles of chairman and chief executive officer in the same person has the benefit of ensuring consistent leadership within the Group and enables more effective and efficient overall strategic planning for the Group. The Board considers that the balance of power and authority of the present arrangement will not be impaired and this structure will enable the Company to make and implement decisions promptly and efficiently. In addition, the Board is of the view that the balanced composition of executive and non-executive Directors (including the independent non-executive Directors) on the Board and the various committees of the Board (primarily comprising independent non-executive Directors) in overseeing different aspects of the Company's affairs would provide adequate safeguards to ensure a balance of power and authority.

COMPLIANCE WITH THE MODEL CODE BY DIRECTORS

The Company has adopted the Model Code for Securities Transactions by Directors of Listed Issuers ("**Model Code**") as set out in Appendix 10 to the Listing Rules as its code of conduct regarding its Directors' securities transactions. The Directors are reminded of their obligations under the Model Code on a regular basis. Following specific enquiry, all Directors have confirmed that they have complied with the required standard set out in the Model Code during the Year.

PURCHASE, SALE OR REDEMPTION OF THE LISTED SECURITIES

During the Year, neither the Company nor any of its subsidiaries had purchased, redeemed or sold any of the Company's listed securities.

AUDIT COMMITTEE

The Board established the audit committee ("**Audit Committee**") on 21 October 2014 with written terms of reference in compliance with Rules 3.21 to 3.23 of the Listing Rules and the Corporate Governance Code. The Audit Committee currently comprises two independent non-executive Directors, namely Mr. Cheung Lap Kei and Madam Chiu Hoi Shan and one non-executive Director, namely Madam Ji Lingling. Mr. Cheung Lap Kei is the chairman of the Audit Committee. None of them is a member of the former or existing auditors of the Company. The terms of reference of the Audit Committee are published on the Company's website and the website of the Stock Exchange.

The primary duties of the Audit Committee are to review the half-yearly and annual results of the Company and to supervise the Group's financial report process and internal control system, and to formulate or review polices relating anti-bribery compliances by ensuring regular management review of relevant corporate governance measures and its implementation, and to communicate with external auditor on the audit procedures and accounting issues.

The Audit Committee has reviewed the consolidated financial statements of the Company for the Year.

SCOPE OF WORK OF PRICEWATERHOUSECOOPERS

The figures in respect of the Group's consolidated balance sheet, consolidated income statement, consolidated statement of comprehensive income and the related notes thereto for the year ended 31 December 2020 as set out in the preliminary announcement have been agreed by the Group's auditor, PricewaterhouseCoopers, to the amounts set out in the Group's audited consolidated financial statements for the year. The work performed by PricewaterhouseCoopers in this respect did not constitute an assurance engagement in accordance with Hong Kong Standards on Auditing, Hong Kong Standards on Review Engagements or Hong Kong Standards on Assurance Engagements issued by the Hong Kong Institute of Certified Public Accountants and consequently no assurance has been expressed by PricewaterhouseCoopers on the preliminary announcement.

PUBLICATION OF ANNUAL RESULTS AND ANNUAL REPORT

This announcement is published on the website of the Stock Exchange (www.hkexnews.hk) and the Company's website (www.austar.com.hk). The annual report of the Company for the Year containing all the information required by the Listing Rules will be despatched to the Shareholders and published on the respective websites of the Stock Exchange and the Company in due course.

APPRECIATION

The Company would like to take this opportunity to thank all its valued Shareholders and various stakeholders for their continuous support. Also, the Company would like to express its appreciation to all the staff for their efforts and commitments to the Group.

On behalf of the Board
Austar Lifesciences Limited
Ho Kwok Keung, Mars
Chairman and Chief Executive Officer

Hong Kong, 26 March 2021

As at the date of this announcement, the Board comprises four executive Directors, namely Mr. Ho Kwok Keung, Mars, Mr. Ho Kin Hung, Mr. Chen Yuewu and Madam Zhou Ning; one non-executive Director, namely Madam Ji Lingling; and three independent non-executive Directors, namely Mr. Cheung Lap Kei, Madam Chiu Hoi Shan and Mr. Leung Oi Kin.