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 2019

	2019	2018
	RMB'000	*RMB'000*
Revenue	**1,049,021**	816,585
Gross profit	**284,244**	204,394
Profit before income tax	**12,208**	3,498
Profit attributable to the owners of the Company	**8,091**	107
Total assets	**1,174,322**	1,071,370
Net assets	**502,625**	482,923
Gross profit margin	**27.1%**	25.0%
Current ratio	**1.5**	1.5
Gearing ratio	**10.2%**	5.4%
Net debt to equity ratio	**Net Cash**	Net Cash
Basic earnings per share *(Note)*	**RMB0.02**	RMB0.00
Diluted earnings per share *(Note)*	**RMB0.02**	RMB0.00

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 2019 and 2018 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 2019 and 2018.

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 2019 ("**Year**"), together with the comparative figures for the year ended 31 December 2018 as follows:

CONSOLIDATED INCOME STATEMENT

	Note	**For the year ended 31 December 2019** ***RMB'000***	For the year ended 31 December 2018 *RMB'000*
Revenue	*3*	**1,049,021**	816,585
Cost of sales	*6*	**(764,777)**	(612,191)
Gross profit		**284,244**	204,394
Selling and marketing expenses	*6*	**(137,077)**	(105,635)
Administrative expenses	*6*	**(108,731)**	(77,450)
Net impairment losses on financial and contract assets		**(5,109)**	(4,066)
Research and development expenses	*6*	**(42,577)**	(30,308)
Other income		**9,153**	3,148
Other gains/(losses) – net	*5*	**146**	(1,667)
Operating profit/(loss)		**49**	(11,584)
Finance income	*4*	**5,703**	5,073
Finance costs	*4*	**(3,736)**	(1,653)
Finance income – net		**1,967**	3,420
Share of net profit of investments accounted for using the equity method		**10,192**	11,662
Profit before income tax		**12,208**	3,498
Income tax expense	*8*	**(4,744)**	(3,378)
Profit for the year		**7,464**	120
Profit/(loss) attributable to:			
The owners of the Company		**8,091**	107
Non-controlling interests		**(627)**	13

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

	Note	**For the year ended 31 December 2019**	For the year ended 31 December 2018
		RMB'000	*RMB'000*
Profit for the year		**7,464**	120
Other comprehensive income			
Items that may be reclassified to profit or loss			
Currency translation differences		**5,713**	8,774
Changes in the fair value of financial assets at fair value through other comprehensive income		**55**	(129)
Share of other comprehensive income of investments accounted for using the equity method		**(213)**	(277)
Other comprehensive income for the year, net of tax		**5,555**	8,368
Total comprehensive income for the year		**13,019**	8,488
Total comprehensive income attributable to:			
The owners of the Company		**13,573**	8,475
Non-controlling interests		**(554)**	13
		13,019	8,488
Earnings per share for profit attributable to the owners of the Company – basic and diluted (RMB)	*9*	**0.02**	0.00

CONSOLIDATED BALANCE SHEET

	Note	**As at 31 December 2019**	As at 31 December 2018
		RMB'000	*RMB'000*
ASSETS			
Non-current assets			
Property, plant and equipment		**55,005**	50,569
Right-of-use assets		**90,426**	–
Land use rights		**–**	54,212
Intangible assets		**26,253**	9,012
Deferred income tax assets		**6,558**	7,264
Investments accounted for using the equity method		**57,509**	47,728
Prepayments and other receivables		**10,399**	9,724
Total non-current assets		**246,150**	178,509
Current assets			
Inventories		**163,517**	131,885
Contract assets and other assets	*12*	**185,747**	126,235
Trade and notes receivables	*11*	**251,091**	286,133
Prepayments and other receivables		**47,746**	55,127
Pledged bank deposits		**88,778**	96,816
Term deposits with initial terms of over three months		**209**	206
Cash and cash equivalents		**191,084**	196,459
Total current assets		**928,172**	892,861
Total assets		**1,174,322**	1,071,370
EQUITY			
Equity attributable to the owners of the Company			
Share capital		**4,071**	4,071
Reserves		**389,560**	384,078
Retained earnings		**100,906**	92,815
		494,537	480,964
Non-controlling interests		**8,088**	1,959
Total equity		**502,625**	482,923

CONSOLIDATED BALANCE SHEET *(continued)*

	Note	**As at 31 December 2019** ***RMB'000***	As at 31 December 2018 *RMB'000*
LIABILITIES			
Non-current liabilities			
Lease liabilities		**24,988**	–
Deferred income		**1,972**	3,511
Deferred income tax liabilities		**10,950**	8,009
Total non-current liabilities		**37,910**	11,520
Current liabilities			
Trade and other payables	*13*	**378,708**	356,077
Contract liabilities	*12*	**222,276**	193,977
Current income tax liabilities		**907**	985
Lease liabilities		**11,896**	–
Short-term borrowings	*14*	**20,000**	25,888
Total current liabilities		**633,787**	576,927
Total liabilities		**671,697**	588,447
Total equity and liabilities		**1,174,322**	1,071,370

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**"), an executive Director 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 27 March 2020.

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 ("**Group**").

2.1 Basis of preparation

The consolidated financial statements of the Group have been prepared in accordance with International Financial Reporting Standards ("**IFRSs**") 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 and amendment for the first time for their annual reporting period commencing 1 January 2019:

- IFRS 16 Leases

The Group had changed its accounting policies and make adjustments following the adoption of IFRS 16. The other amendments and interpretations to existing standards that are effective for the financial year from 1 January 2019 did not have material impact or are not relevant to the Group.

(b) New standards and interpretations not yet adopted

Certain new accounting standards and interpretations have been published that are not mandatory for 31 December 2019 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.

2.2 Changes in accounting policies and disclosures

This note explains the impact of the adoption of IFRS 16 Leases on the Group's consolidated financial statements.

The Group has adopted IFRS 16 retrospectively from 1 January 2019, but has not restated comparatives for the 2018 reporting period, as permitted under the specific transitional provisions in the standard. The reclassifications and the adjustments arising from the new leasing rules are therefore recognised in the opening balance sheet on 1 January 2019.

On adoption of IFRS 16, the Group recognised lease liabilities in relation to leases which had previously been classified as 'operating leases' under the principles of IAS 17 Leases. These liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate as of 1 January 2019. The weighted average lessee's incremental borrowing rate applied to the lease liabilities on 1 January 2019 was 4.73%.

(a) Practical expedients applied

In applying IFRS 16 for the first time, the Group has used the following practical expedients permitted by the standard:

- the use of a single discount rate to a portfolio of leases with reasonably similar characteristics
- reliance on previous assessments on whether leases are onerous as an alternative to performing an impairment review – there were no onerous contracts as at 1 January 2019
- the accounting for operating leases with a remaining lease term of less than 12 months as at 1 January 2019 as short-term leases
- the exclusion of initial direct costs for the measurement of the right-of-use asset at the date of initial application, and
- the use of hindsight in determining the lease term where the contract contains options to extend or terminate the lease.

The Group has also elected not to reassess whether a contract is, or contains a lease at the date of initial application. Instead, for contracts entered into before the transition date the Group relied on its assessment made applying IAS 17 and IFRIC 4 Determining whether an Arrangement contains a Lease.

(b) Measurement of lease liabilities

	2019 ***RMB'000***
Operating lease commitments disclosed as at 31 December 2018	16,105
Discounted using the lessee's incremental borrowing rate of at the date of initial application	14,571
Add: adjustments as a result of a different treatment of enforceability beyond the written contract	21,111
Lease liabilities recognised as at 1 January 2019	**35,682**
Of which are:	
Current lease liabilities	13,322
Non-current lease liabilities	22,360
	35,682

(c) Measurement of right-of-use assets

Right-of-use assets were measured at the amount equal to the lease liabilities, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognised in the balance sheet as at 31 December 2018.

(d) Adjustments recognised in the balance sheet on 1 January 2019

The change in accounting policy affected the following items in the balance sheet on 1 January 2019:

- right-of-use assets – increase by RMB 91,911,000
- prepayments and other receivables – decrease by RMB 2,017,000
- lease liabilities – increase by RMB 35,682,000
- land use rights – decrease by RMB 54,212,000

(e) Lessor accounting

The group did not need to make any adjustments to the accounting for assets held as lessor under operating leases as a result of the adoption of IFRS 16.

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 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 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**

The segment results for the year ended 31 December 2018 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	350,953	207,397	93,001	38,968	191,309	21,534	903,162
Inter-segment revenue	(30,112)	(42,685)	(1,649)	(2,088)	(4,135)	(5,908)	(86,577)
Revenue	320,841	164,712	91,352	36,880	187,174	15,626	816,585
Recognised at a point in time	67,157	31,609	26,005	2,283	187,174	15,626	329,854
Recognised over time	253,684	133,103	65,347	34,597	–	–	486,731
Cost of sales	(280,270)	(128,989)	(61,794)	(17,948)	(113,192)	(9,998)	(612,191)
Segment results							
Gross profit	40,571	35,723	29,558	18,932	73,982	5,628	204,394
Other segment items							
Amortisation	1,142	728	90	36	14	13	2,023
Depreciation	4,559	1,692	548	219	475	80	7,573
Net impairment losses on financial and contract assets	1,146	1,275	880	353	347	65	4,066
Impairment of inventories	5,328	293	140	58	1,026	23	6,868
Share of net profit of investments accounted for using the equity method	3,418	4,180	–	–	4,064	–	11,662

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

	For the year ended 31 December 2019	For the year ended 31 December 2018
	RMB'000	*RMB'000*
Liquid and Bioprocess System	**74,633**	40,571
Clean Room and Automation Control and Monitoring System	**58,895**	35,723
Powder and Solid System	**27,915**	29,558
GMP Compliance Service	**28,116**	18,932
Life Science Consumables	**86,645**	73,982
Distribution and Agency of Pharmaceutical Equipment	**8,040**	5,628
Total gross profit for reportable segments	**284,244**	204,394
Selling and marketing expenses	**(137,077)**	(105,635)
Administrative expenses	**(108,731)**	(77,450)
Net impairment losses on financial and contract assets	**(5,109)**	(4,066)
Research and development expenses	**(42,577)**	(30,308)
Other income	**9,153**	3,148
Other gains/(losses) – net	**146**	(1,667)
Finance income – net	**1,967**	3,420
Share of net profit of investments accounted for using the equity method	**10,192**	11,662
Profit before income tax	**12,208**	3,498

The segment assets as at 31 December 2019 and 2018 are as follows:

	As at 31 December 2019		As at 31 December 2018	
	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	**354,973**	**17,369**	306,283	12,164
Clean Room and Automation Control and Monitoring System	**255,540**	**21,517**	185,321	21,923
Powder and Solid System	**70,490**	**–**	65,426	–
GMP Compliance Service	**32,586**	**–**	24,256	–
Life Science Consumables	**136,658**	**18,623**	87,610	13,641
Distribution and Agency of Pharmaceutical Equipment	**28,085**	**–**	11,673	–
Total segment assets	**878,332**	**57,509**	680,569	47,728
Unallocated				
Deferred income tax assets	**6,558**		7,264	
Headquarter assets	**289,432**		383,537	
Total assets	**1,174,322**		1,071,370	

Geographical information

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

	For the year ended 31 December 2019	For the year ended 31 December 2018
	RMB'000	*RMB'000*
Revenue		
Mainland China	**964,135**	766,057
Other locations	**84,886**	50,528
	1,049,021	816,585

	As at 31 December 2019	As at 31 December 2018
	RMB'000	*RMB'000*
Non-current assets other than financial assets and deferred tax assets		
Mainland China	**152,502**	113,669
Other locations	**76,691**	47,852
	229,193	161,521

4. FINANCE INCOME – NET

	For the year ended 31 December 2019	For the year ended 31 December 2018
	RMB'000	*RMB'000*
Interest expense		
– Short term bank loan	**(1,739)**	(1,445)
– Interest paid for lease liabilities	**(1,610)**	–
Exchange losses	**(387)**	(208)
Finance costs	**(3,736)**	(1,653)
Finance income		
– Bank deposits	**5,194**	4,582
– Loan to PALL-AUSTAR Lifesciences Limited ("**PALL-AUSTAR JV**")	**509**	491
	5,703	5,073
	1,967	3,420

5. OTHER GAINS/(LOSSES) – NET

	For the year ended 31 December 2019	For the year ended 31 December 2018
	RMB'000	*RMB'000*
Losses on disposal of property, plant and equipment	**(218)**	(175)
Exchange losses	**(2,415)**	(1,328)
Others	**2,779**	(164)
	146	(1,667)

6. EXPENSES BY NATURE

	Year ended 31 December 2019	Year ended 31 December 2018
	RMB'000	*RMB'000*
Raw materials	**570,889**	485,646
Staff costs, including directors' emoluments	**225,741**	162,787
On-site subcontract fee	**59,659**	24,671
Travel expenses	**43,136**	38,211
Promotion expenses	**22,176**	16,453
Freight and port charges	**21,973**	14,012
Impairment of inventories	**13,576**	6,868
Professional fees	**13,310**	8,281
Depreciation		
– Property, plant and equipment	**11,176**	7,573
– Right-of-use assets	**12,847**	–
Rental expenses		
– Madam Gu Xun	**–**	935
– Austar Limited	**–**	91
– Others	**–**	8,913
Office expenses	**10,524**	11,032
Warranty provision	**6,548**	4,279
Sales tax and surcharges	**4,988**	3,553
Auditor's remuneration		
–Audit service	**4,338**	3,194
–Non-audit service	**9**	1,270
Amortisation	**2,274**	2,023
Communication expenses	**1,997**	1,773
Other operating expenses	**28,001**	24,019
	1,053,162	825,584

7. STAFF COSTS, INCLUDING DIRECTORS' EMOLUMENTS

	For the year ended 31 December 2019	For the year ended 31 December 2018
	RMB'000	RMB'000
Salaries and bonuses	**177,499**	126,857
Pension and social obligations	**48,242**	35,930
	225,741	162,787

8. INCOME TAX EXPENSE

	For the year ended 31 December 2019	For the year ended 31 December 2018
	RMB'000	*RMB'000*
Current income tax expense	**2,903**	3,036
Deferred income tax expense	**1,841**	342
	4,744	3,378

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 (2018: 16.5%).

The taxation of the Group's subsidiary in Germany is calculated at 30% of the estimated assessable profit for the year (2018: 30%).

Corporate income tax in the PRC is calculated based on the statutory profit or loss of the 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 2019, 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 2019	For the year ended 31 December 2018
Profit attributable to the owners of the Company *(RMB'000)*	**8,091**	107
Weighted average number of ordinary shares in issue *(Thousands)*	**512,582**	512,582
Basic earnings per share *(RMB)*	**0.02**	0.00

(b) Diluted

As the Company had no dilutive ordinary shares for each of the year ended 31 December 2019 and 2018, dilutive earnings per share for the years ended 31 December 2019 and 2018 are the same as basic earnings per share.

10. DIVIDENDS

The Board did not propose any final dividend for the year ended 31 December 2019 (2018: Nil).

11. TRADE AND NOTES RECEIVABLES

	As at 31 December 2019	As at 31 December 2018
	RMB'000	*RMB'000*
Trade receivables *(Note (b))*	**226,963**	227,222
Notes receivable *(Note (a))*	**47,116**	80,115
	274,079	307,337
Less: loss allowance	**(22,988)**	(21,204)
	251,091	286,133

Notes:

(a) Most of the notes receivable are bank acceptance with maturity dates within six months (2018: 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 2019	As at 31 December 2018
	RMB'000	*RMB'000*
Within 6 months	**143,827**	141,334
6 months to 1 year	**17,536**	20,817
1 to 2 years	**29,576**	43,624
2 to 3 years	**26,767**	8,581
Over 3 years	**9,257**	12,866
	226,963	227,222

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 2019	As at 31 December 2018
	RMB'000	*RMB'000*
Contract assets	**186,523**	128,547
Loss allowance of contract assets	**(3,659)**	(5,674)
	182,864	122,873
Costs incurred to obtain contracts	**2,883**	3,362
Total contract assets and other assets	**185,747**	126,235
Contract liabilities	**(222,276)**	(193,977)

13. TRADE AND OTHER PAYABLES

	As at 31 December 2019	As at 31 December 2018
	RMB'000	*RMB'000*
Trade payables	**236,504**	215,007
Notes payables	**25,244**	25,934
Payroll and welfare payable	**37,856**	37,622
Taxes other than income taxes payable	**3,510**	12,845
Warranty provision	**12,422**	6,250
Accrued expenses	**29,883**	18,923
Employee payable	**5,533**	7,552
Loan from a non-controlling shareholder of a subsidiary	**1,563**	–
Others	**26,193**	31,944
	378,708	356,077

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 2019	As at 31 December 2018
	RMB'000	*RMB'000*
Within 6 months	**206,632**	194,042
6 months to 1 year	**14,597**	9,231
1 to 2 years	**7,550**	5,127
2 to 3 years	**2,735**	2,143
Over 3 years	**4,990**	4,464
	236,504	215,007

14. SHORT-TERM BORROWINGS

	As at 31 December 2019	As at 31 December 2018
	RMB'000	*RMB'000*
Bank borrowings secured *(Note)*	**20,000**	20,000
Notes discounted with recourse	**–**	5,888
	20,000	25,888

Note:

As at 31 December 2019, secured short-term bank borrowing is denominated in RMB, secured by the Group's buildings and right-of-use assets. For the year ended 31 December 2019, the short-term bank borrowing bears interest rate of 4.57% (2018: 4.35% to 4.79%) per annum and is repayable within one year.

Market Review

In 2019, significant progress in drug regulatory development in the PRC under stricter regulatory environment had taken place. Both the "Vaccine Administration Law" and the "Drug Administration Law" of China came into effect on 1 December 2019. This indicated a new chapter of drug regulations in China that would utilise tougher measures and more stringent approaches on the control of the whole drug product lifecycle. Market Authorization Holder (MAH) policies are stipulated in the new Drug Administration Law of China to encourage the industry for more innovative drugs and more professional in each sector of the whole drugs including growth opportunities of contract development and manufacturing organisations (CDMOs). The "Measures for the Supervision over and Administration of Pharmaceutical Production (Draft for Comment)", to be implemented as per the "Four Strictest Requirements", has clarified the legal responsibilities of pharmaceutical MAH and pharmaceutical manufacturing enterprises and fully implemented the pharmaceutical Marketing Authorization Holder system; it also explicitly cancelled drug GMP certification and required the standards of drug manufacturing quality management practices to function with approval of production licenses and daily supervision.

In December 2019, the European Medicines Agency (EMA) launched the "pilot programme for international cooperation in GMP inspection of manufacturers of sterile medicinal products for human use" and such inspection plan is expected to apply on sterile chemicals for human use as well as certain products derived from therapeutic biotechnology (such as monoclonal antibodies and recombinant proteins). This will definitely enhance the enforcement on GMP in a global level in general.

In 2019, the focus of GMP on-site inspection in Europe and the United States still lies on overall inspection observations, the non-conformance reports and other public contents, quality assurance (QA) system, laboratory system, data integrity and cross-contamination. According to the risk-based regulatory model, the US Food and Drug Administration (FDA) will adjust the frequency and intensity of inspections on the basis of, among other things, product, process risk and compliance history. All these policies are driving forces for growth opportunities for engineering consulting services and solution provider business.

Zanubrutinib, the first innovative small-molecule drug developed by a China-based innovative drug research and manufacturer, was approved by the FDA in 2019. This is a milestone for the Chinese pharmaceutical industry, exemplifying a path for drug development that utilising international funding resources and combining top research talents from the United States and China under professional leadership, which fast global standard and cost-effective research for innovative drugs can be achieved by emerging countries, in particular in China with the talent resources.

The recent surge of enquiries for facilities for bulk pharmaceutical chemicals (BPC) in some emerging countries indicates that a strategic struggle is taking place for independence of key resources instead of from one single resource. Product structure has changed from huge-volume antibiotics and vitamin to high-value specific therapeutic bulk chemical, which resulted in a surge of active pharmaceutical ingredient (API) projects in 2019. It is believed that this trend will continue in the next 5 to 8 years.

China's CDMO industrial sector will continue to grow as biologics, chemical drug and bulk pharmaceutical chemical companies choose to outsourcing due to CDMO's cost advantages and advanced technologies in saving time and costs. There are a significant number of start-up research companies including CDMOs receiving research and capital expenditure (CAPEX) funding from various sources, looking for more cost-effective turnkey solutions so as to focus on product development instead of managing the projects by themselves.

Digital transformation in the pharmaceutical industry is not merely a preferred option, but the only way to survive in the long run under stricter data-integrity regulatory environment and increased production costs including labour and energy. Digital transformation can help to achieve cost savings, and to attract talents in the younger generation in the recruitment process.

Business Review

During the Year, the Group has recorded significant growth of approximately 28.6% of order-in-take and approximately 28.5% of revenue as compared to 2018. This trend of growth has been going on since 2018 and it is believed by the management that such growth pattern and momentum will continue at present and in the foreseeable future under the current market environment. The gross profit for 2019 recorded an increase of approximately 39.1%.

The Group's efforts of transformation including determination for structure reorganisation, which was started since 3 to 4 years ago, now started to see glimpse of achievement. In order to secure the driving elements for growth momentum in the coming few years, the Company 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 require extra resources and additional expenses, which may adversely impact the Group's net profit at this moment. However, it is expected that such initiatives will result in favourable results in the long run. With our corporate strategies and commitment on our visions and strategies, the Group will continue to be bold in investing in human resources, geographical expansion and enhancing product and application solution competences, with the intention to bring about more satisfactory business results for our shareholders.

The Group has been positioning as a technology-based application solution provider with system integration capability to offer in the life-science industry focusing on pharmaceutical, biologics, bulk pharmaceutical 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.

The Group has been undergoing a serious review on its product lines and trying to find new technical solutions by combining various product lines together to offer the most cost-effective integrated solutions. Product-line restructuring will continue to facilitate application and solution offerings, and such restructuring will bring about competence improvement and enable the Group to be more resilient under tougher competitive circumstances.

The Group is proudly looking forward to a more precise positioning as a technological company with comprehensive knowledge and experience in life-science process technology and applications and industry regulatory rules and practices, being able to help customers to address issues in quality, compliance and operation excellence. Our vision statement which was revised and presented to the public in 2018 remains valid as guiding principles for the Group's business segments to establish their own strategies:

1. to become a globally recognised best technical product and service and solution provider to pharmaceutical researchers and manufacturers;

2. to deploy resources of global world-class partners to build up all-round knowledge and connection of the whole drug product life cycle and to provide comprehensive and integrated technical solutions; and

3. to gather global resources and leverage products and services empowered with cost and technical advantageous features, and to help upgrading the pharmaceutical industry in emerging countries.

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				
	2019		2018		Change
Order-in-take by business segment	***RMB'000***	*%*	*RMB'000*	*%*	*%*
Liquid and Bioprocess System	**607,398**	**42.3%**	434,097	38.9%	39.9%
Clean Room and Automation Control and Monitoring System	**330,727**	**23.0%**	268,124	24.0%	23.3%
Powder and Solid System	**118,418**	**8.3%**	125,529	11.2%	(5.7%)
GMP Compliance Service	**89,284**	**6.2%**	46,602	4.2%	91.6%
Life Science Consumables	**267,527**	**18.6%**	215,740	19.3%	24.0%
Distribution and Agency of Pharmaceutical Equipment	**22,512**	**1.6%**	26,371	2.4%	(14.6%)
Total	**1,435,866**	**100.0%**	1,116,463	100.0%	28.6%

During the Year, the total order-in-take amounted to approximately RMB1,435.9 million, representing a significant increase of approximately 28.6% from approximately RMB1,116.5 million for the year ended 31 December 2018, 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, GMP Compliance Service and Life Science Consumables, but partially offset by the decrease in order-in-take amount of the business segments of Powder and Solid System and Distribution and Agency of Pharmaceutical Equipment. Driven by persistent marketing efforts especially through exhibitions, industry conferences and seminars, synergy and partnership sales model from the sales teams' efforts together covering customers' various demands of different products, supported by a strong and rich pipeline of products with high quality, and more business opportunities from more pharmaceutical industry CAPEX, the Group achieved a significant increase and strengthened its good position in the overall order-in-take volume, in spite of facing continuous keen market competition in the Year. The Company will keep on its investment in market, product development, LEAN manufacturing, as well as further recruiting talents in the sales teams both in domestic and overseas, technology application team, industry expertise and etc., to strengthen the comprehensive competitiveness of the Group as a technology-based application solution provider with system integration capability, which can intensively drive for further growth of the Group.

Liquid and Bioprocess System

Through several years of persistent endeavours, focusing on biopharmaceutical projects and strongly supported by experienced key account managers and good product with high quality and customised technology application, the Group gained market recognition, as well as a significant increase of order-in-take in the past two years. The order-in-take amount of the business segment of Liquid and Bioprocess System amounted to approximately RMB607.4 million for the Year, representing an outstanding increase of approximately RMB173.3 million or 39.9% from approximately RMB434.1 million for the year ended 31 December 2018. In the coming years, the Directors expect that there will be a huge growth potential in the biopharmaceutical field, as compared to the conventional pharmaceutical chemical field. The Group will endeavour to pursue sustainable developments, build core competitiveness through integration and rich process automation experience and knowledge in biopharmaceutical projects, strive for the high-end market in the PRC, and seek for more opportunities in the overseas market, supported by our partnership with H+E GmbH and the Group's non-wholly owned subsidiary H+E Pharma GmbH ("**H+E Pharma**") with the manufacturing facility in Dresden, Germany.

Clean Room and Automation Control and Monitoring System

Through building a unique competence by integrating new technology, continuously-improved automation control system and its partner's latest equipment and software, the Group has successfully expanded its market share and experienced high growth in system turnkey engineering projects. The order-in-take amount of the business segment of Clean Room and Automation Control and Monitoring System increased by approximately RMB62.6 million or 23.3% from approximately RMB268.1 million for the year ended 31 December 2018 to approximately RMB330.7 million for the Year. The Group will devote to develop Pharma IT business as a system integrator to offer comprehensive automation and digitalisation systems and services, and enhance our competence.

Powder and Solid System

After the establishment of a new oral solid dosage (OSD) product line in 2015, the Group's self-developed equipment has gradually gained market recognition. However, facing keen market competition, the order-in-take amount of the business segment of Powder and Solid System decreased slightly by approximately RMB7.1 million or 5.7% from approximately RMB125.5 million for the year ended 31 December 2018 to approximately RMB118.4 million for the Year. Supported by the value-added services of the formulation process laboratories, and leveraging all kinds of internal resources, the Group will continuously enhance its competitiveness and capture more opportunities in this business segment.

GMP Compliance Service

Driven by government regulations and secured by our good reputation in GMP compliance services, the Group was able to capture the strong increasing demand and expanded our market share in the high-end market. The order-in-take amount of the business segment of GMP Compliance Service increased by approximately RMB42.7 million or 91.6% from approximately RMB46.6 million for the year ended 31 December 2018 to approximately RMB89.3 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 was able to offer a complete solution of Washing, Disinfection and Sterilisation. This unique competence made the business segment of Life Science Consumables continue to keep stable increase in the order-in-take amount by approximately RMB51.8 million or 24.0% from approximately RMB215.7 million for the year ended 31 December 2018 to approximately RMB267.5 million for the Year. The Group will continue to launch more diversified life science consumables and services with the latest technology to its customers. The single-use bioprocess bag material capacity expansion brought by the new facility of PALL-AUSTAR JV in the coming second quarter, is expected to drive the single-use system engineering business intensively. This segment still has a huge potential growth after the rapid growth in the past three years.

Distribution and Agency of Pharmaceutical Equipment

During the Year, the order-in-take amount of the business segment of Distribution and Agency of Pharmaceutical Equipment experienced a slight decrease by approximately RMB3.9 million or 14.6% from approximately RMB26.4 million for the year ended 31 December 2018 to approximately RMB22.5 million for the Year. 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 equipments.

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 2019:

	As at 31 December 2019			
Backlogs by business segment	*Number of Contracts*	*%*	*RMB'000*	*%*
Liquid and Bioprocess System	305	32.3%	404,485	45.8%
Clean Room and Automation Control and Monitoring System	257	27.2%	261,648	29.6%
Powder and Solid System	108	11.4%	92,644	10.5%
GMP Compliance Service	107	11.3%	80,621	9.2%
Distribution and Agency of Pharmaceutical Equipment	168	17.8%	43,539	4.9%
Total	945	100.0%	882,937	100.0%

Production, Execution and Organisation

One of the key elements of our Manufacturing Operation System Improvement Initiative is to launch and implement our Manufacturing Execution System (MES), which was first applied in one of our manufacturing sites in 2019. This system can be monitored by the Work Wechat app which we have used to link our business control and information system to this app as one of the interfaces. Implemented in 2019, this system offers monitoring of production planning, abnormality alert, performance visual management, man-hour and efficiency calculations. More functions such as overall equipment effectiveness (OEE), production order distribution and bar-code system are planned to be implemented in 2020 as one step further to our vision realisation of the AUSTAR Manufacture Operation System.

Following the establishment of our joint venture H+E Pharma in Stuttgart, Germany and its wholly-owned assembly plant of S-Tec GmbH ("**S-Tec**") in Dresden, Germany in 2019, the Group is considering the feasibility of constructing a new building for S-Tec for assembling bioreactors and process skids as well as for freeze-dryers, which, if materialised, will offer our customers more choices on origin of manufacturing and flexibility on production capacity from the perspectives of smart manufacturing resource utilisation.

Under the guidance of LEAN manufacturing, the Group's container manufacturing plant in Songjiang, Shanghai has optimised its pressure vessel manufacturing process flow. A large-scale German-made plate rolling unit has been installed and is under final commissioning. An advanced hydraulic knife for hole-cutting on vessel header has been purchased and is expected to be installed by the end of April 2020. Together, a modern vessel manufacturing line composed mainly of plasma cutting machine, large plate roller, hydraulic knife for header hole-cutting along with vessel circular and longitudinal automatic welding machines will increase the production efficiency of pressure vessels significantly.

The year-end headcount of the Group of 2019 recorded an increase of 15.3% as compared to that of 2018. Although such an increase will bring about increase in costs and expenses, the management believes that such planned action is an important step of setting our foundation for further growth, especially for product development, knowledge and competence development and customer relations development.

The Group is also building up its global organisation structure by setting up new subsidiaries in preparation for a more aggressive approach on manufacturing and engineering execution capacity expansion in Europe, which is currently in progress.

A new facility of our joint venture, PALL-AUSTAR JV, for providing single-use bioprocess bag material to our biologic's customers, is under construction and scheduled to be ready for use in the second quarter of 2020. It is expected that with this new facility, a significant increase in production capacity can be achieved to relieve the pressure of supply, and will definitely become a reliable and strong component vendor to the Group's single-use system engineering business.

The facility expansion plan of the Group's associate, ROTA Verpackungstechnik GmbH & Co. KG and ROTA Verpackungstechnik Verwaltungsgesellschaft mbH (collectively, "**ROTA**"), in Wehr, Germany is scheduled to be completed within the first half year of 2020. It is expected that the integrated freeze-dryer equipment of the Group can be tested and run with the new factory-acceptance-test work stations inside ROTA's expanded facility.

In 2019, a subsidiary in India and two subsidiaries in Malaysia were established to pursue the objectives of establishing technical and commercial competence in the Asia region in a gradual manner. A European team was established for serving the partnership with STERIS Corporation and H+E Pharma.

The establishment of a LEAN manufacturing system was initiated in December 2018. Through LEAN production management and process re-engineering, production process control management could be strengthened, flexibility of the manufacturing system could be improved, and the operation process of the production system could be rationally laid out. In 2019, phase-one of the LEAN trainings and basic system structure was applied to certain business units and manufacturing units of the Group. In 2020, the next phase of LEAN improvement initiative will cover more business units and manufacturing units of the Group as the LEAN trainings and improvement activities will last for years, which will further improve the whole operation system and can provide better products and service to customers with shorter lead time and better quality.

At the end of 2019, the Group's Project Execution Center (PEC) consisted of 424 project execution members from more than 20 provinces in China and several emerging countries. The PEC has been working on 771 project site contracts and has finished 454 site projects in 2019. Improvement in customer satisfaction by introducing a simplified customer feedback daily reporting mechanism can ensure a higher chance of repeated orders. More automation control system software tests and validation efforts have been executed at the factory-acceptance-test phase to drastically reduce the on-site man-hours in site-acceptance-test which in return, can help reduce project cost execution.

Sales and Marketing

The Group primarily sells and markets its products in the PRC and exports its products outside of the PRC to overseas, especially the emerging countries. The Group's services and products are mainly sold directly to its customers in the PRC. Overseas sales are conducted through a mixture of direct, agency and distribution sales models. Due to the product application nature, sales teams from different product lines evolve gradually onto specific sector customer-focused sales teams, which are able to support customer contacts for different product lines. This synergetic and internal partnership sales model will be further consolidated.

In 2019, the Group continued to invest its efforts in marketing and has participated in several major events and exhibitions such as CPhI&P-MEC, CIPM and Medtec in China focusing on the promotion of powder-solid integrated solutions, biopharmaceutical process system solutions, intelligent chemical plant construction and integration of Heating Ventilation and Air Conditioning (HVAC) technology clean room system. The Group also participated in exhibitions held in Russia, India, Indonesia, Bangladesh and Germany. The Group organised a seminar platform with a theme related to biotechnology and bioprocess at Seoul, South Korea, and a powder & solid and containment technology seminar at Jakarta, Indonesia in 2019.

In 2019, Austar has organised five seminars with specific themes in China, namely, "API Pharmaceutical Technology Forum", "New Technology Research and Application Forum of Solid Dosage Form", "Soft Capsule Preparation Process and Technology Forum", "High Activity Pharmaceutical Production, EHS and Engineering" and "Pharmaceutical Process Pollution Control Seminar".

The Group is also a key participant in "International Biopharma 4.0 Summit", "Global CAR-T cell Therapy Development and Manufacturing Forum" and "INT Immuno & Norel Therapy Summit".

During the Year, Austar established nine Wechat Official Public Accounts with various technology application themes to share our views and knowledge in the industry. In 2019, the Group published 180 tweets of professional technical guidance content in the industry. An "AUSTAR Think Tank" Knowledge Sharing Platform with on-line live broadcast tool was established, aiming to better share professional knowledge and promote industry progress. With this sharing platform, 25 professional online seminars were held, covering 5 various professional subjects of the pharmaceutical industry. Digital marketing would be our approach in coming years.

Research and Development

As at 31 December 2019, the Group has obtained 228 registered patents. The Group obtained 32 registered patents including 3 invention patents during the Year, and applications for 49 patents are currently in progress.

During the Year, the Group came to a strategic partnership agreement with Siemens for enhancing pharmaceutical industry digitalisation with the Group as the first company in the pharmaceutical industry in our region to support Siemens' Mindsphere, the cloud-based IoT (Internet of Things) operating system. The Group has been developing a new Facility Equipment Management System to facilitate the exploration of data utilisation of facility and equipment of the Group's customers. Pharma LeanTec was launched as a brand with Lean-based Information System Consulting Services. Pharma LeanDigital is another brand which was launched to differentiate from the former one to offer more comprehensive digitalisation systems.

New software application development on partners software platform was implemented in projects such as:–

– Pharmaceutical Manufacturing Operation Management Platform
– Industrial Internet Platform
– Industrial Data Mining Cloud Platform
– Integrated Management and Control Platform (MES + BATCH)
– Digital Visualisation Solution

The AusMill brand Particle-Sizing Milling equipment with more options are still under further technical development and after further standardisation, the Group expects to launch this product-line to Europe and other emerging countries soon in 2020.

Vacuum Conical Dryer for APIs was developed and more than 30 sets of such new me-better equipment have been sold. This vacuum conical dryer is one of the key equipments for manufacturing bulk pharmaceutical chemicals including APIs, recipients and intermediates. Collaborating with an API equipment specialist from Europe has been negotiated and cooperation is expected to start in 2020; with the action, full product portfolios of bulk pharmaceutical chemicals or APIs would be available through further research and development.

All key process analytical technology (PAT) instruments and devices were installed and integrated in the wet-granulation pilot laboratory equipment to collect data for process development. The formulation and process laboratories with soft capsule, dry granulation & wet granulation, and particle-sizing equipment can offer value-added services to our OSD equipment and system. Stressing on the cutting-edge technology application and collaborating with the European Provider of continuous drying and hot melt extrusion. Capability of trial in lab scale gives experimental data generation for our customer product process development. PAT solution for OSD equipment is very helpful for developing continuous manufacturing technology applications.

New technical features including advanced cooling control system have been applied in our freeze-dryer design and have already been applied in one project. The service of the new freeze-dryer research and development (R&D) laboratory partnership with scholars in University of Erlangen-Nuremberg was officially launched with a full-time scientist based in Germany to support our freeze-drying process consulting services. Freeze-drying process tests assigned by customers have embarked on its ambitious journey to be a world-class biologics freeze-dryer and protein-product stability laboratory. The shelf temperature control technology of freeze-dryer was developed to make temperature control more accurate, which is crucial for enabling the high quality of biologics drug.

The application on integrity membrane towards water pretreatment and cold water for injection (WFI) has been developed and commercialised with an order placed. Bioprocess downstream in-line dilution equipment is under the development phase. The automation control software of bioreactor is partnering with GPC from France for product development.

The clean-room partition system with high-pressure-lamination material developed in the first half of 2019 will offer more options for customers for stricter technical environment. The R&D for energy-saving components and devices for HVAC will be enhanced by the recent recruitment of a specialist with substantial energy-saving and sustainability background.

Prospects

Increasing the market share in the emerging countries

During the Year, STERIS Corporation granted a wholly-own subsidiary of the Group the exclusive rights for the sales of water equipments for injection and pure-steam. It will allow the Group to act as water system integrator with the STERIS products in India. STERIS and H+E Pharma, our subsidiary in co-operation with H+E GmbH, have started to work in Europe and its nearby regions for the sales and proposed a partnership to offer critical utility system turnkey solutions with Austar's role as system integrator.

As part of our global expansion strategies, a sales marketing and business development team in Europe with the disciplines of clean utilities, bioprocess equipment and systems, clean room systems and integrated fill and finish has been established. It allows additional sales and business development resources to explore more market opportunities in Europe, the Middle East and North Africa. A partnership of sales activity and project execution resources for Spain and Latin America market was negotiated in 2019 and hopefully a concrete action plan can be initiated in 2020. The Group's market presence in the Middle East was strengthened by a new experienced business development leader recruited from and located in Jordan.

After some years of market study, the Group has decided to develop our own team in Russia with our own subsidiary instead of forming a joint venture in Russia and the Commonwealth of Independent States (CIS) countries. The Group expects to secure a business development leader of Russia located in Moscow in mid-2020 and meanwhile, business development for Russia was managed by the Group's Europe team and a lot of sales projects were under discussion. Sales territory development in Asia was under further evaluation in 2019 and a new experienced business development leader of East Asia and South Asia located in Malaysia will create growth opportunities in parallel with the existing growth of business in Hong Kong and Taiwan.

The Group will further improve its agency management with better alignment. Identification, qualification and appointment of new agents in Asia, the Middle East and North Africa, and South America will help improve our market presence.

Through the Group's efforts in sales organisation consolidation and further integration of products, the Group's order-in-take increased significantly in 2019 as compared to 2018. During the Year, there have been some significant breakthrough in the orders of the product-lines of freeze-dryers and clean room system engineering. It is believed that our market share in these two product lines will be further improved. In addition, a number of product lines of the Group which are now in their incubation phases are expected to mature gradually and to offer new streams of revenues for the Group.

Increasing the market share in the PRC

The growth of biopharmaceutical and pharmaceutical market in China has given the Company sufficient project orders for consolidating the concrete foundation for building core competence elements including product, technologies, knowledge and expertise. These elements can contribute to the growth of our business in other emerging countries. The strong pipeline of sales leads and project enquires in the emerging countries with now improved interfaces and elevated communication supported by more sales and proposal personnel can generate stronger stream of revenues for the Group in the coming years.

Sales organisation in China has further aligned with our sector-focused strategies, including different sectors such as bulk pharmaceutical chemical, biologics, OSD, research sector, animal vaccine and lab animal research. The Group is gradually developing more sector-focused sales and proposal teams for each specific sector leveraging on the Group's China territory sales teams. It is expected that such sector-focused strategies will bring about further growth driving elements.

Proactive marketing and rebranding supported by social media, webinars, seminars and exhibitions could improve the Group's brand awareness and allow customers to revisit the strength and technical improvement and new value propositions of our products and services.

For project execution, customer satisfaction on the Company's quality, value-price ratio and project-management control will definitely push up further the Company's existing reputation in China. We believe that there is no competitor in China which has similar or closer project execution competence as the Company in terms of scale, integration capacities, project control tools and technical knowledge.

Improving services and product offerings

The Group has been developing 12 technology applications in our competence and knowledge model. The technology applications are namely:

- Clean Utilities
- Pharmaceutical automation and digitalization
- Pharmaceutical formulation technology
- Biopharma process and technology
- Regulatory compliance and operation excellence
- Laboratory technology and facilities
- Biosafety technology and facilities
- Cleaning, sterilization and disinfection
- Clean room/HVAC/EMS/BMS
- Quality/measurement and analytics
- Filling, freeze-drying and inspection
- Containment technology

As disclosed in our 2018 Annual Report, individual specific technology application teams are being gradually established step by step to cover all 12 technology applications within 2 to 3 years. Our approach of offerings would be gradually presented as a technology application solution provider instead of individual product lines and services. Each application team consists of internal Subject Matter Experts (SMEs), external consultants, Technical Advisory Committee (TAC) members, sales proposals and execution staff. Each application team will be able to facilitate the knowledge acquisition model. Each of the individual application team would formalise or revise their mission, visions and strategies under the following guiding principles:

Mission:—

1. To help connect the scattered but related product lines into one package of products with one key application concept.

2. To solve the customers' issues of quality, process, compliance and operational excellence.

3. To increase Austar's technological competence level and thus improve Austar's overall competitiveness as a key transformation initiative.

Visions:—

1. Through the new value propositions from the technology application team's efforts, business results of more than 50% can be achieved than by proposing a single solution.

2. Creating technological and commercial value to customers, staff and vendors through specific technology applications.

3. Branding as a global technology application leader in 5 to 8 years.

Tactics and Strategic Goals:—

1. Using 4-level from Components/Software, Equipment, Systems to Application Solutions/ Facility to create partnership alliance among the sub-business units of the Group, vendors, suppliers and partners.

2 To become a regional technology application leader in 3 years and a global leader in 5 to 8 years.

3. Team establishment with common shared value and objectives with formalised cooperation structure and mechanism including meeting management and incentive scheme.

The Group has its uniqueness in product offerings with the following capacities:–

1. Offering complete products and service by meeting the regulatory compliance requirements for instance, in solving the customers' contamination control regulatory requirements, consumables, equipment, services are integrated to offer unique solutions to the customers.

2. Offering an integrated solution from the component/software level, to equipment level, to system level to tackle with an application issue – for instance as for containment application, components like flexible containment vessels, valves, to equipment level such as isolator and powder transfer equipment, are integrated to complete the OSD system under one roof.

3. Offering an integrated solution by integrated application technologies – for instance, combining the knowledge of HVAC, VHP, Environmental Monitoring System (EMS), Building Management System (BMS) and energy saving to offer an integrated and automated building solution.

The service business would be one of the key growth elements within our business portfolios. Serious action has been taken to make preparation and planning for restructuring all services scattered around in different product lines in various business segments onto a harmonised portfolio of services. Ultimately, our goal is to achieve service professionalism, wider differentiation from competitors, better unification of scattered services with customised service plan and more efficient communications between our Group and our customers.

The Group is further improving and strengthening its proposal and front-end engineering team resources to speed up the feedback for technical and commercial proposal requests. It is believed such initiatives would cater for the further surge of order-in-take in 2020 and in coming years.

Liquid and Bioprocess System

The Liquid and Bioprocess System business segment is able and confident to offer more sophisticated bioprocess systems to our customers especially after the completion of the detail design of a monoclonal antibody bioprocess plant project by our Project Execution Centre. This complex project system consists of 4 lines: 2* 2000 L Perfusion, 1*2000 L Fed Batch, and 1*500 L Fed Batch production lines; the system includes 82 sets of vessels and 53 sets of skids.

For bioprocess system engineering, through more and more experience gained by project execution in the past several years, the Company is able to develop technical competence in specific segments such as blood products, monoclonal antibodies, recombinant proteins, human vaccines and animal vaccines. With this segmentised focus, our offerings could become more specific and more adaptable to specific needs, and as a result, more market opportunities and competence upgrade are foreseeable.

The business units of Clean Utilities System Engineering and Bioprocess System Engineering were established as a result of the restructuring of this business segment. With the Clean Utilities System Engineering business unit, our mid-long-term objectives are to bring our presently regional champion business unit onto the highest global level. With the Bioprocess System Engineering business unit, our goal is to become a global top-tier bioprocess equipment and system supplier. Such goals are foreseeable as the competence and knowledge acquisition are possible only when a supplier is able to acquire a significant number of projects to gain the experience and competence from, as we have much more projects in the region than other global top-tier suppliers.

The establishment of H+E Pharma, our subsidiary in co-operation with H+E GmBH in 2019 will help contribute to the Company's visions on implementing our global expansion strategies in the scope of clean utilities system, by leveraging the Group's competitive edges of project management, automation and validation in the life sciences industry and H+E's pretreatment and purified equipment technology, after-sales services and manufacturing capacities. With the establishment of H+E Pharma and the Company's commitment and visions, the Group together with our partners in Europe, will be able to offer better services and systems to our customers in Europe with high customer satisfaction.

The Group's Single-use Technology BioProcess Engineering team is working with this business segment to offer Hybrid (stainless steel multi-use and plastic disposable) BioProcess System Engineering, which can be differentiated from other competitors which are lacking in integration, process automation and validation experience and knowledge.

ROTA, the Group's associate, made another successful year in 2019 in terms of order-in-take and revenue. With the new extension of the facility expected to be completed within the first half year of 2020, ROTA will be able to deliver more complete vial and ampoule filling line, plus the possibility of offering freeze-dryers factory acceptance test runs. The successful site acceptance tests of 3 freeze-dryers with vial loading and unloading device at one innovative vaccine plant was completed with customer satisfaction and excellent test performances. One of the largest blood product and vaccine manufacturer in China in 2019 bought 3 production-scale freeze-dryers and the equipment is expected to be delivered in 2020 with test runs.

Clean Room and Automation and Monitoring System

Digitalisation business initiatives – in 2019, the Group signed a strategic cooperation agreement with Siemens to promote digital factory solutions in the Chinese pharmaceutical industry. Austar is the first in the Chinese pharmaceutical industry to partner with Siemens to offer Simens's cloud-based IOT (Internet of Things) platform, Mindsphere. Based on the confidence and trust built with the successful cooperation in automation control systems with Siemens in the last 10 years, it is believed that the strategic partnering with Siemens to offer Mindsphere will bring customers in China to capture the future opportunities and benefits of machine-learning and IOT.

The Group has been initiating partnership cooperation with a sizable pharmaceutical group to explore the path of digital factory transformation by employing the concept of "LEAN manufacturing digitalisation" into practice in the pharmaceutical industry. LEAN manufacturing practices have been adopted by most multinational companies, but there are still a lot of opportunities of improvement in the emerging countries. Digitalisation and automation control system will help emerging countries in a faster pace to reach the goals of compliance, quality and cost operation excellence.

The Group has also entered into a partnership agreement with Werum IT Solutions, a subsidiary of Körber Group, with a vision to work with Werum to provide customers with world-leading biotechnology manufacturing execution systems (MES) solutions. The company will act as software and system integrator to include Werum software and other software onto our newly-structured REMOIS (Research & Manufacturing Operation Integration System) platform to offer very unique, flexible and versatile solutions to customers. This platform can allow us 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.

Clean room engineering business momentum and drivers – Austar's Clean Room Engineering Services provides integrated engineering solutions integrating HVAC, space-disinfection VHP, air-monitoring and building management system BMS and EMS and green energy-saving technologies through comprehensive clean room technology applications with the following additional services:

(a) design and construction of clean room in compliance with GMP requirements;

(b) integrated BMS/EMS/MES intelligent control system to realise data collection and energy-saving control;

(c) integrating the VHP ductwork-on-line-disinfection system to provide disinfection control in clean areas in full compliance with regulatory and operation requirements;

(d) GMP qualification and HVAC system validation;

(e) building information modelling (BIM) solutions to realise 3D visualisation of the project, through collision detection and secondary optimisation design to control construction quality and cost effectively; and

(f) technology-based clean room engineering solutions to differentiate the Group from other competitors in the market, not only in China and the emerging countries but also in developed countries as well.

Powder and Solid System

The success of the Powder and Solid System business segment depends heavily on integration with containment technology, Powder handling technology and formulation process system engineering, and also supported by fundamental knowledge of occupational safety compliance, pharmaceutical quality compliance and automation control engineering.

Following the standardisation of containment and barrier technology products like aseptic isolators and particle-sizing products like the Group's AusMill series milling machines, for more of the Group's agents and distributors can directly promote and distribute them in quantity. Standardisation facilitates the possibilities of manufacturing those products in more locations including in the manufacture facilities in Europe, and closer delivery to the neighbouring countries of Europe.

With its core knowledge of containment technology, this business segment will create higher value to customers involved in highly toxic and/or highly potent drugs and will continue to focus to serve the market of oncology and hormone related drugs.

This business segment will focus more on chemical drug manufacturer, either bulk pharmaceutical chemicals or chemical formulation finished products, especially in the specific field of containment and occupational safety. Increasing sales orders of the Group's milling equipment and drying equipment has strengthened this business segment; supported by the Group's Technical Advisory Committee (TAC) advisors and manufacturing consultants, it is expected that these equipment will soon be improved to become world-class level. The Group's self-developed AusMill brand particle-sizing equipment has gradually gained market recognition; its unique mechanical design has a prominent performance in handling materials with high hardness and has successfully solved difficult technical problems. The strong growth in the order-in-take in 2019 was attributed partly to more customers' demand on higher quality and efficiency expectations on APIs.

GMP Compliance Service

The service scope of the GMP Compliance Service business segment has been expanded to cover other GxP services, like Good Clinical Practice (GCP) data integrity consulting services to cover more sectors over the whole drug product life-cycle, such as clinical batch production shop. The Group will continue to promote services like Good Engineering Practice (GEP), ICH Q10 Quality Management Systems, and Quality by Design, where opportunities are expected to grow significantly as a result of the tougher policies as issued by the drug authorities. ASTM E2500 (Standard Guide for Specification, Design, and Verification of Pharmaceutical and Biopharmaceutical Manufacturing Systems and Equipment) as Good Engineering Practice/ Commissioning & Qualification consulting service model will be further investigated to support the existing growing Commissioning, Qualification and Validation (CQV) services. The GMP Compliance Service business segment will extend more CQV and Quality Management System (QMS) consulting services to drug research sector and cover more biologics customers like PD-1 Antibody and CAR-T cell therapy.

Technology transfer has become a more important tool for innovative drug and CDMO companies at the different phases of the drug product cycle and clinical trials to either transfer products and processes inside their own organisations or cross-border or cross-companies to other organisations for the purpose of licensing or site changes. This will give opportunities for the Company to provide technology transfer project management support to the parties to the technology transfer, whether on the transfer-side or the receiving-side. This will in turn create further opportunities for CAPEX and engineering and consulting services as a result.

Pharmaceutical Quality System (PQS) based on ICH Q10 consulting service has been in high demand as well. This service is one of the strengths of this business segment. This service can be expanded into different scenarios such as research and manufacturing quality system and QMS in the technology transfer process.

Occupational safety-related consulting services including cross-containment assessment services can be offered to customers involved in multi-product facilities especially for CDMOs for biologics and high potent drug products. Such compliance consulting can cover facility layout/ product line assessment, Occupational Exposure Limit (OEL)/ Occupational Exposure Band (OEB) analysis, Permitted Daily Exposure (PDE)/residue analysis, cleaning risk-based assessment and cleaning validation.

The Group has gathered, with some years of business and knowledge development, proper resources for biosafety facility and compliance consulting. In particular, with the recent novel coronavirus outbreak, it would give the Company an opportunity to deliver our expertise and knowledge in the field of biosafety level-3 to laboratories and facilities with biologics safety and contamination concerns.

Life Sciences Consumables

The novel coronavirus outbreak which started in early 2020 has brought about the awareness of biosafety. One of the key elements for biosafety measures is to ensure the facility is designed and maintained with proper decontamination concept, design, consumable, equipment and process installed. The core-competence of the Life Sciences Consumables business segment is decontamination related to washing, disinfection and sterilization. This unique competence knowledge-set is believed to offer a strong competitive edge not only in the life science industry but also in other industrial sectors requiring hygienic or sterile working environment. We believe that due to consideration of precautious concerns on further virus outbreak, a lot of services, consumables and equipment would be required to improve in biosafety laboratories and vaccine facilities.

The Vaccine Administration Law of the PRC has imposed stricter requirements related to the biosafety concerns in the vaccine production process. Based on years of experience in contamination control applications in the pharmaceutical field, the Life Sciences Consumables business segment has an excellent opportunity and the capability to be a pioneer in the field of biosafety. It is believed that in the coming years, the steam autoclave and dry heat sterilizer, VHP and newly introduced decontamination equipment and bio-containment system products will gain new business growth opportunities for this business segment.

The revenue from this business segment is mainly limited to the PRC market. However, it is expected that the Group's knowledge and experience gained in China so far can be utilised in other emerging countries for business development. More proactive sales organisations or partnerships will be established to achieve global expansion goals.

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 RMB1,049.0 million, representing an increase of approximately 28.5% over 2018, primarily attributable to the increase in revenue from the business segments of Liquid and Bioprocess System, Clean Room and Automation Control and Monitoring System, Life Science Consumables, GMP Compliance Service, and Distribution and Agency of Pharmaceutical Equipment, and which was slightly offset by the decrease in revenue from the business segment of Powder and Solid System.

The following table sets forth, for the years ended 31 December 2019 and 2018, the breakdown of the Group's revenue by business segment:

	For the year ended 31 December				
	2019		2018		Change
Revenue by business segment	***RMB'000***	*%*	*RMB'000*	*%*	*%*
Liquid and Bioprocess System	**435,980**	**41.6%**	320,841	39.3%	35.9%
Clean Room and Automation Control and Monitoring System	**250,875**	**23.9%**	164,712	20.2%	52.3%
Powder and Solid System	**82,963**	**7.9%**	91,352	11.2%	(9.2%)
GMP Compliance Service	**53,641**	**5.1%**	36,880	4.5%	45.4%
Life Science Consumables	**203,586**	**19.4%**	187,174	22.9%	8.8%
Distribution and Agency of Pharmaceutical Equipment	**21,976**	**2.1%**	15,626	1.9%	40.6%
Total	**1,049,021**	**100.0%**	816,585	100.0%	28.5%

Liquid and Bioprocess System

The Group's revenue from the business segment of Liquid and Bioprocess System increased significantly by approximately RMB115.2 million or 35.9% from approximately RMB320.8 million for the year ended 31 December 2018 to approximately RMB436.0 million for the Year. The increase was mainly attributable to the increase in the closing amount of backlog as at 31 December 2018 and the increase in the order-in-take in the business segment of Liquid and Bioprocess System for the Year, a part of which was recognised as revenue.

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 substantially by approximately RMB86.2 million or 52.3% from approximately RMB164.7 million for the year ended 31 December 2018 to approximately RMB250.9 million for the Year. The increase was mainly attributable to the increase in the closing amount of backlog as at 31 December 2018 and the increase in the order-in-take in the business segment of Clean Room and Automation Control and Monitoring System for the Year, especially in some huge integrated-solution projects, 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 slight decrease by approximately RMB8.4 million or 9.2% from approximately RMB91.4 million for the year ended 31 December 2018 to approximately RMB83.0 million for the Year. The decrease was primarily due to a large part of order-in-take in the business segment of Powder and Solid System, which was obtained in the fourth quarter in 2019 has not yet been recognised as revenue for the Year.

GMP Compliance Service

The Group's revenue from the business segment of GMP Compliance Service increased significantly by approximately RMB16.7 million or 45.4% from approximately RMB36.9 million for the year ended 31 December 2018 to approximately RMB53.6 million for the Year. The increase was mainly attributable to the increase in the order-in-take in the business segment of GMP Compliance Service for the Year, a part of which was recognised as revenue.

Life Science Consumables

The Group's revenue from the business segment of Life Science Consumables increased by approximately RMB16.4 million or 8.8% from approximately RMB187.2 million for the year ended 31 December 2018 to approximately RMB203.6 million for the Year, which was primarily attributable to the continuous launching of more diversified life science consumables and services with the latest technology.

Distribution and Agency of Pharmaceutical Equipment

The Group's revenue from the business segment of Distribution and Agency of Pharmaceutical Equipment increased significantly by approximately RMB6.4 million or 40.6% from approximately RMB15.6 million for the year ended 31 December 2018 to approximately RMB22.0 million for the Year, which was mainly attributable to the increasing demand of high-end pharmaceutical equipment from the customers, and the increase in the amount of backlog in the business segment of Distribution and Agency of Pharmaceutical Equipment as at 31 December 2018, which part of amount were recognised as revenue for the Year.

The following table sets forth the breakdown of the Group's revenue by geographical regions for the years ended 31 December 2019 and 2018:

	For the year ended 31 December				
	2019		2018		Change
Revenue	***RMB'000***	***%***	*RMB'000*	*%*	*%*
Mainland China	**964,135**	**91.9%**	766,057	93.8%	25.9%
Other locations	**84,886**	**8.1%**	50,528	6.2%	68.0%
Total	**1,049,021**	**100.0%**	816,585	100.0%	28.5%

The Group derived its revenue mainly from customers in Mainland China, which accounted for approximately 91.9% of the total revenue for the Year (2018: approximately 93.8%).

Cost of sales

The Group's cost of sales increased by approximately RMB152.6 million or 24.9% from approximately RMB612.2 million for the year ended 31 December 2018 to approximately RMB764.8 million for the Year. Such increase was mainly in line with the increase in revenue.

Gross profit and gross profit margin

The Group's gross profit increased by approximately RMB79.8 million or 39.1% from approximately RMB204.4 million for the year ended 31 December 2018 to approximately RMB284.2 million for the Year. The gross profit margin increased from approximately 25.0% for the year ended 31 December 2018 to approximately 27.1% for the Year, which was attributable to the general increase in gross profit margin across all business segments of the Group during the Year.

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					
	2019			2018		
			Gross profit margin			Gross profit margin
Gross profit margin by business segment	***RMB'000***	*%*	*%*	*RMB'000*	*%*	*%*
Liquid and Bioprocess System	**74,633**	**26.3%**	**17.1%**	40,571	19.8%	12.6%
Clean Room and Automation Control and Monitoring System	**58,895**	**20.7%**	**23.5%**	35,723	17.5%	21.7%
Powder and Solid System	**27,915**	**9.8%**	**33.6%**	29,558	14.5%	32.4%
GMP Compliance Service	**28,116**	**9.9%**	**52.4%**	18,932	9.3%	51.3%
Life Science Consumables	**86,645**	**30.5%**	**42.6%**	73,982	36.2%	39.5%
Distribution and Agency of Pharmaceutical Equipment	**8,040**	**2.8%**	**36.6%**	5,628	2.7%	36.0%
Total	**284,244**	**100.0%**	**27.1%**	204,394	100.0%	25.0%

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 RMB34.0 million or 83.7% from approximately RMB40.6 million for the year ended 31 December 2018 to approximately RMB74.6 million for the Year. The gross profit margin from the business segment of Liquid and Bioprocess System increased from approximately 12.6% for the year ended 31 December 2018 to approximately 17.1% for the Year, which was mainly attributable to the improved project execution management, cost control measures, and project execution efficiency driven by the continuous improvement of engineers' knowledge and experience.

Clean Room and Automation Control and Monitoring System

The gross profit from the business segment of Clean Room and Automation Control and Monitoring System increased by approximately RMB23.2 million or 65.0% from approximately RMB35.7 million for the year ended 31 December 2018 to approximately RMB58.9 million for the Year. The gross profit margin from the business segment of Clean Room and Automation Control and Monitoring System increased from approximately 21.7% for the year ended 31 December 2018 to approximately 23.5% for the Year, which was mainly attributable to the unique competence of the Group by providing integrated engineering solutions by combining new technology, continuous improved automation control system and its partner's latest equipment and software. The Group will continuously develop various software and get better control over cost management through LEAN-based manufacturing management.

Powder and Solid System

The Group's gross profit from the business segment of Powder and Solid System decreased slightly by approximately RMB1.7 million or 5.7% from approximately RMB29.6 million for the year ended 31 December 2018 to approximately RMB27.9 million for the Year. The gross profit margin from the business segment of Powder and Solid System increased from approximately 32.4% for the year ended 31 December 2018 to approximately 33.6% for the Year, mainly attributable to the continuous improvement in overall project control.

GMP Compliance Service

The Group's gross profit from the business segment of GMP Compliance Service increased by approximately RMB9.2 million or 48.7% from approximately RMB18.9 million for the year ended 31 December 2018 to approximately RMB28.1 million for the Year. The gross profit margin from the business segment of GMP Compliance Service increased from approximately 51.3% for the year ended 31 December 2018 to approximately 52.4% for the Year. The Group will keep on providing high quality service and improving cost control.

Life Science Consumables

The Group's gross profit from the business segment of Life Science Consumables increased by approximately RMB12.6 million or 17.0% from approximately RMB74.0 million for the year ended 31 December 2018 to approximately RMB86.6 million for the Year. The gross profit margin from the business segment of Life Science Consumables increased from approximately 39.5% for the year ended 31 December 2018 to approximately 42.6% 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 increased by approximately RMB2.4 million or 42.9% from approximately RMB5.6 million for the year ended 31 December 2018 to approximately RMB8.0 million for the Year. The gross profit margin from the business segment of Distribution and Agency of Pharmaceutical Equipment increased from approximately 36.0% for the year ended 31 December 2018 to approximately 36.6% for the Year. 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 increased by approximately RMB6.1 million or 196.8% to approximately RMB9.2 million for the Year from approximately RMB3.1 million for the year ended 31 December 2018, mainly attributable to the increase in the subsidies granted by local government authorities of the PRC in the Year.

Other gains/(losses) – net

The Group recorded other gains of approximately RMB0.1 million for the Year as compared to other losses of approximately RMB1.7 million for the year ended 31 December 2018, mainly attributable to currency exchange gains arising from retranslation of foreign currency denominated trade related balances.

Selling and marketing expenses

Selling and marketing expenses increased by approximately RMB31.5 million or 29.8% to approximately RMB137.1 million for the Year from approximately RMB105.6 million for the year ended 31 December 2018. The increase was primarily due to the increase in the staff costs and travel expenses.

Administrative expenses

Administrative expenses increased by approximately RMB31.2 million or 40.3% to approximately RMB108.7 million for the Year from approximately RMB77.5 million for the year ended 31 December 2018. The increase was primarily due to the increase in the staff costs and impairment of inventories.

Research and development expenses

As at 31 December 2019, the Group had 43 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 RMB12.3 million or 40.6% to approximately RMB42.6 million for the Year, compared to approximately RMB30.3 million for the year ended 31 December 2018, mainly due to the increase of staff costs and materials utilised in more research projects. The Group will make continuous efforts to enhance research and development activities.

Finance income – net

Net finance income decreased from approximately RMB3.4 million for the year ended 31 December 2018 to approximately RMB2.0 million for the Year, which was mainly due to the increase of the interest paid/payable for lease liabilities of approximately RMB1.6 million, and for short term bank loan approximately RMB0.3 million for the Year, but partially offset by the increase of interest income of approximately RMB0.6 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 decreased by approximately RMB1.5 million, from approximately RMB11.7 million for the year ended 31 December 2018 to approximately RMB10.2 million for the Year, primarily due to the decrease in profit of the associate, ROTA, by approximately RMB4.4 million, because of equipments of some orders with large amount were delivered and completed site acceptance test in the first season in 2020, and revenue and gross profit were recognised in 2020 accordingly, but partially offset by the increase in profit contribution from the Group's investments in two joint ventures, PALL-AUSTAR JV and STERIS-AUSTAR JV by approximately RMB1.1 million and RMB1.8 million respectively.

Profit before income tax

Profit before income tax increased from approximately RMB3.5 million for the year ended 31 December 2018 to approximately RMB12.2 million for the Year, which was primarily due to the factors as described above in this section.

Income tax expense

Income tax expense increased by approximately RMB1.3 million, from approximately RMB3.4 million for the year ended 31 December 2018 to approximately RMB4.7 million for the Year, which was mainly due to the increase of deferred income tax expense by approximately RMB1.5 million.

Profit for the year

Profit for the year increased from approximately RMB0.1 million for the year ended 31 December 2018 to approximately RMB7.5 million for the Year, 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	
	2019	2018
	RMB'000	*RMB'000*
Net cash generated from/(used in) operating activities	**37,793**	(77,598)
Net cash used in investing activities	**(22,087)**	(39,495)
Net cash (used in)/generated from financing activities	**(20,694)**	4,440
Net decrease in cash and cash equivalents	**(4,988)**	(112,653)

For the Year, the Group had net cash generated from operating activities of approximately RMB37.8 million mainly attributable to:

i. the profit before income tax of approximately RMB12.2 million, plus the depreciation of property, plant, equipment and right-of-use assets of approximately RMB24.0 million and the amortisation of intangible assets of approximately RMB2.3 million;

ii. the decrease in trade and notes receivables of approximately RMB35.0 million, and prepayments and other receivables of approximately RMB7.4 million;

iii. the increase in contract liabilities of approximately RMB28.3 million, and trade and other payables of approximately RMB22.6 million; and

iv. partially offset by the increase in inventories of approximately RMB31.6 million, and contract assets of approximately RMB59.5 million.

For the Year, the Group had net cash used in investing activities of approximately RMB22.1 million, which was mainly attributable to:

i. acquisition of H+E Pharma of approximately RMB11.5 million; and

ii. purchase of property, plant, equipment and intangible assets of approximately RMB13.7 million which consisted of machinery, equipment and tools purchased for various business segments.

For the Year, the Group had net cash used in financing activities of approximately RMB20.7 million mainly due to repayments of borrowings of approximately RMB30.9 million, principal elements of lease payments of approximately RMB10.1 million, interest paid of approximately RMB3.3 million, and repayment of loan from a non-controlling shareholder of a subsidiary of approximately RMB1.4 million, but partially offset by net proceeds from borrowings of approximately RMB25.0 million.

As at 31 December 2019 and 31 December 2018, the Group had cash and cash equivalents of approximately RMB191.1 million and RMB196.5 million respectively, and balances of pledged bank deposits under the current assets were approximately RMB88.8 million and RMB96.8 million respectively.

Net current assets

The Group's net current assets as at 31 December 2019 had decreased by approximately RMB21.5 million, from approximately RMB315.9 million as at 31 December 2018 to approximately RMB294.4 million as at 31 December 2019.

As at 31 December 2019, the Group's total current assets amounted to approximately RMB928.2 million, which was an increase of approximately RMB35.3 million as compared with approximately RMB892.9 million as at 31 December 2018. The increase was primarily attributable to:

i. the increase in inventories of approximately RMB31.6 million, and contract assets of approximately RMB59.5 million, which was mainly attributable to the fast business expansion during the Year; and

ii. partially offset by the decrease in trade and notes receivables of approximately RMB35.0 million, prepayment and other receivables of approximately RMB7.4 million, pledged bank deposits of approximately RMB8.0 million, and cash and cash equivalents of approximately RMB5.4 million.

As at 31 December 2019, the Group's total current liabilities amounted to approximately RMB633.8 million, which was an increase of approximately RMB56.9 million as compared with approximately RMB576.9 million as at 31 December 2018. The increase was primarily due to the increase in contract liabilities of approximately RMB28.3 million, trade and other payables of approximately RMB22.6 million, and lease liabilities of approximately RMB11.9 million, but partially offset by the decrease in short-term borrowings of approximately RMB5.9 million.

Borrowings and gearing ratio

As at 31 December 2019, the total interest-bearing borrowings amounted to approximately RMB20.0 million, represented a decrease of approximately RMB5.9 million, secured by the Group's buildings and right-of-use of lands, and bearing interest rate of 4.57% per annum (2018: 4.35% to 4.79%).

The Group's gearing ratio is approximately 10.2% as at 31 December 2019 (31 December 2018: 5.4%). 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 2019, in addition to pledged bank deposits of approximately RMB88.8 million, the Group had buildings and right-of-use assets having a total carrying amount of approximately RMB6.4 million and approximately RMB5.4 million respectively (31 December 2018: approximately RMB7.1 million and approximately RMB5.5 million respectively) which are pledged as security for short-term bank borrowings with carrying amount of approximately RMB20.0 million (31 December 2018: approximately RMB20.0 million).

Contingent liabilities

The Group did not have any material contingent liabilities as at 31 December 2019 (31 December 2018: Nil).

HUMAN RESOURCES

As at 31 December 2019, the Group had 1,312 full-time employees for research and development, sales and marketing, administration, project management and execution and manufacturing, increased by 174 employees as compared to the number of employees as at 31 December 2018. The employee costs (including the Directors' remuneration) were approximately RMB225.7 million for the Year, which was an increase of approximately 38.6% as compared with approximately RMB162.8 million for the year ended 31 December 2018.

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 decided by the remuneration committee of 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 2019 amounted to approximately RMB2.2 million.

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 2019, 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 as at 31 December 2019		Unutilised amount as at 31 December 2019		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	55.7	32.6	107.4	94.1	*Note 1*
Development of the Songjiang Production Centre	14.2%	58.4	45.4	–	–	58.4	45.4	*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	43.9	29.6	38.5	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	207.5	146.1	204.3	173.9	

Note:

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. As the process in the acquisition of the land use right of a piece of land in the Shijiazhuang High-New Technology Industry Development Zone ("**Land**") by the Group is slower than expected and accordingly, 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 lagging behind schedule. On 18 September 2018, the Group by a successful bid won the public tender of the Land and administrative work to obtain the necessary approvals and land use right certificates are in process. It is expected that the unutilised Net Proceeds of approximately RMB94.1 million (equivalent to approximately HK$107.4 million) allocated for the establishment of the Shijiazhuang R&D and Production Centre will be utilised in accordance with the development plans as set out in the section headed "Business" in the Prospectus but subject to rescheduling due to the reasons above.

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. As at 31 December 2019, the Group is actively searching for suitable potential location for the development of the Songjiang Production Center. The schedule of development plan of the Songjiang Production Centre was delayed due to the local government is making a long-term plan of the whole Songjiang area development. It is expected that the unutilised Net Proceeds of approximately RMB45.4 million (equivalent to approximately HK$58.4 million) allocated for development of the Songjiang Production Centre will be utilised in accordance with the development plan as set out in the section headed "Business" in the Prospectus but subject to rescheduling due to the reasons above.

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 utilised Net Proceeds brought forward from the previous year amounted to approximately HK$226.6 million. The unutilised Net Proceeds as at 31 December 2019 of approximately HK$204.3 million has been deposited into the banks.

EVENT AFTER THE YEAR

Events occurring after the reporting period

Following the outbreak of Coronavirus Disease 2019 ("the **COVID-19 outbreak**") in early 2020, a series of precautionary and control measures have been and continued to be implemented across China, including an extension of the Chinese New Year holiday nationwide, postponement of work resumption after the Chinese New Year holiday in some regions, imposing of certain restrictions and controls over travelling traffic arrangements, etc. These measures have delayed the resumption of business after the Chinese New Year holiday of the Group and of its joint ventures, and also some of the Group's customers and suppliers in China. As a result, the progress of certain engineering contracts, settlement by customers and order–in-take of the Group have been delayed and affected to some extent.

The majority of the Group's operation and its joint ventures' businesses which are mainly in China have been getting better in March 2020. The Group's associates in Germany started being affected to some extent since March 2020. As at the date on which this set of financial statements were authorised for issue, the impacts on the macro-economic conditions as a whole by the COVID-19 outbreak are still uncertain, the Group is unable to quantify the related financial effects. The Group will pay close attention to the development of the COVID-19 outbreak, perform further assessment of its impact and take relevant measures.

FINAL DIVIDEND

The Directors do not recommend the payment of any dividend for the Year (2018: Nil).

CLOSURE OF REGISTER OF MEMBERS

For determining the entitlement to attend and vote at the forthcoming annual general meeting of the Company to be held on Friday, 29 May 2020 ("**2020 AGM**"), the register of members of the Company will be closed from Tuesday, 26 May 2020 to Friday, 29 May 2020, both days inclusive, during which period no transfer of Shares will be registered. In order to be eligible to attend and vote at the 2020 AGM, all transfer of Shares accompanied by the relevant Share 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, 25 May 2020.

CORPORATE GOVERNANCE PRACTICE

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. Mars Ho assumes the role of both 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 throughout 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 which 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. Details of the terms of reference of the Audit Committee are set out on the Company's website and the website of the Stock Exchange.

The primary duties of the Audit Committee are to review and supervise the Group's financial report process and internal control and risk management systems, and to formulate or review policies relating to 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 2019 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 will be 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, 27 March 2020

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