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Boan Biotech
博安生物

Shandong Boan Biotechnology Co., Ltd.

山东博安生物技术股份有限公司

(A joint stock company incorporated in the People's Republic of China with limited liability)

(Stock Code: 6955)

ANNUAL RESULTS ANNOUNCEMENT FOR THE YEAR ENDED 31 DECEMBER 2022

FINANCIAL HIGHLIGHTS

1. Revenue

During the Reporting Period, the Group has built a dedicated commercialization team by use of proactive marketing strategy and efficient executive capability in sales, through which the Group rapidly established a foothold in the domestic market laying a solid foundation for the subsequent transformation of the Company. With the commercialization of two products, the Group witnessed a significant increase in revenue during the Reporting Period.

For the year ended 31 December 2022, the Group's revenue amounted to approximately RMB516.0 million, as compared to RMB158.7 million for the year ended 31 December 2021, representing an increase of approximately RMB357.3 million, or 225.1%. The increase was mainly attributable to the growth of sales of Boyounuo® (BA1101) in China and the launch of Boyoubei® (BA6101) in the end of 2022.

2. Cost of Sales

Cost of sales of the Group primarily represents materials and consumables, labour costs associated with production, utilities and maintenance fee as well as depreciation and amortisation expenses of production equipment, facilities and intangible assets.

Our cost of sales increased from RMB52.2 million for the year ended 31 December 2021 to approximately RMB161.7 million for the year ended 31 December 2022, which accounted for approximately 31.3% of our total revenue for the same year (2021: 32.9%). The decrease in cost of sales margin was mainly due to the increase of production volume leading lower unit cost of manufacturing in 2022.

3. Gross Profit

For the year ended 31 December 2022, the Group recorded a gross profit of approximately RMB354.2 million, representing an increase of approximately RMB247.7 million, or 232.6%, as compared with that for the year ended 31 December 2021, mainly due to the gross profit contribution from the two commercialized products of the Company.

4. Selling and Distribution Expenses

For the year ended 31 December 2022, the Group's selling and distribution expenses amounted to RMB214.1 million, as compared to RMB54.0 million for the year ended 31 December 2021, representing an increase of RMB160.1 million, or 296.5%. The increase in selling expenses was in line with the revenue growth during the same period.

5. Research and Development Expenses

The following table sets forth a breakdown of the Group's research and development ("R&D") expenses for the years indicated:

	2022	2021
	<i>RMB'000</i>	<i>RMB'000</i>
R&D service fees	176,079	82,707
Raw materials and consumables expenses	100,377	54,459
Staff costs and share-based payments	73,558	59,164
Depreciation and amortisation expenses	23,958	23,376
Others	26,366	11,861
	<u>400,338</u>	<u>231,567</u>

For the year ended 31 December 2022, the Group's recognised R&D expenses of approximately RMB400.3 million, representing an increase of approximately RMB168.7 million as compared with that to the year ended 31 December 2021. The increased R&D expenses was mainly due to the increasing investment in R&D projects to accelerate the Company's innovation and transformation.

RESULTS

The board (the “**Board**”) of directors (the “**Directors**”) of Shandong Boan Biotechnology Co., Ltd. (the “**Company**” or “**Boan Biotech**”) is pleased to announce the audited consolidated annual results of the Company and its subsidiaries (collectively, the “**Group**”, “**we**” or “**us**”) for the year ended 31 December 2022 (the “**Reporting Period**”), together with the comparative figures for the corresponding year as follows:

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the year ended 31 December

	Notes	2022 RMB'000	2021 RMB'000
REVENUE	5	515,960	158,704
Cost of sales		<u>(161,730)</u>	<u>(52,190)</u>
Gross profit		354,230	106,514
Other income and gains	5	24,348	13,365
Research and development costs		(400,338)	(231,567)
Administrative expenses		(82,334)	(42,165)
Selling and distribution expenses		(214,086)	(54,048)
Other expenses		(162)	(5,917)
Finance costs	7	<u>(13,407)</u>	<u>(11,599)</u>
LOSS BEFORE TAX	6	(331,749)	(225,417)
Income tax expense	8	<u>–</u>	<u>–</u>
LOSS FOR THE YEAR		<u>(331,749)</u>	<u>(225,417)</u>
Attributable to:			
Owners of the parent		<u>(331,749)</u>	<u>(225,417)</u>
OTHER COMPREHENSIVE INCOME/(LOSS)			
Other comprehensive income/(loss) that may be reclassified to profit or loss in subsequent periods:			
Exchange differences on translation of foreign operations		<u>1,703</u>	<u>(128)</u>
OTHER COMPREHENSIVE INCOME/(LOSS) FOR THE YEAR, NET OF TAX		<u>1,703</u>	<u>(128)</u>
TOTAL COMPREHENSIVE LOSS FOR THE YEAR		<u>(330,046)</u>	<u>(225,545)</u>
Attributable to:			
Owners of the parent		<u>(330,046)</u>	<u>(225,545)</u>
LOSS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT			
Basic and diluted (RMB)	10	<u>(0.67)</u>	<u>(0.47)</u>

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at 31 December

	<i>Notes</i>	2022 RMB'000	2021 <i>RMB'000</i>
NON-CURRENT ASSETS			
Property, plant and equipment		572,092	504,842
Advance payments for property, plant and equipment and intangible assets		41,685	79,192
Right-of-use assets		10,602	16,718
Intangible assets		731,505	566,002
		<hr/>	<hr/>
Total non-current assets		1,355,884	1,166,754
CURRENT ASSETS			
Inventories		143,634	98,840
Trade and notes receivables	<i>11</i>	212,124	107,267
Prepayments, other receivables and other assets		50,259	75,328
Pledged deposits		207,160	44,853
Time deposits over three months		–	81,859
Cash and cash equivalents		233,498	531,703
		<hr/>	<hr/>
Total current assets		846,675	939,850
CURRENT LIABILITIES			
Lease liabilities		8,384	10,019
Trade and notes payables	<i>12</i>	160,203	138,714
Other payables and accruals		204,427	79,024
Interest-bearing bank loans		83,339	10,000
Due to related parties	<i>14(b)</i>	15,318	22,725
		<hr/>	<hr/>
Total current liabilities		471,671	260,482
NET CURRENT ASSETS		<hr/> 375,004	<hr/> 679,368
TOTAL ASSETS LESS CURRENT LIABILITIES		<hr/> 1,730,888	<hr/> 1,846,122

	<i>Note</i>	2022 RMB'000	2021 <i>RMB'000</i>
NON-CURRENT LIABILITIES			
Lease liabilities		–	4,504
Interest-bearing bank loans		210,000	240,000
Government grants		–	1,800
Other non-current liabilities		102,511	48,131
		<hr/>	<hr/>
Total non-current liabilities		312,511	294,435
		<hr/>	<hr/>
Net assets		1,418,377	1,551,687
		<hr/>	<hr/>
EQUITY			
Equity attributable to owners of the parent			
Share capital	<i>13</i>	509,278	498,583
Reserves		909,099	1,053,104
		<hr/>	<hr/>
Total equity		1,418,377	1,551,687
		<hr/>	<hr/>

NOTES TO FINANCIAL STATEMENTS

For the year ended 31 December 2022

1. CORPORATE INFORMATION

The Company is a joint stock company with limited liability established in the People's Republic of China ("PRC"). The registered office of the Company is located at No. 39 Keji Avenue, High-Tech Industrial Development Zone, Yantai, Shandong Province, China.

During the Reporting Period, the Company and its subsidiaries were principally engaged in the development, manufacture and commercialisation of high quality biologics in China and worldwide.

2. BASIS OF PREPARATION

These financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRSs") issued by the International Accounting Standards Board ("IASB"), accounting principles generally accepted in Hong Kong and the disclosure requirements of the Hong Kong Companies Ordinance. They have been prepared under the historical cost convention, except for notes receivable. These financial statements are presented in Renminbi ("RMB") and all values are rounded to the nearest thousand except when otherwise indicated.

Basis of consolidation

The consolidated financial statements include the financial statements of the Company and its subsidiaries (collectively referred to as the "Group") for the year ended 31 December 2022. A subsidiary is an entity (including a structured entity), directly or indirectly, controlled by the Company. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee (i.e., existing rights that give the Group the current ability to direct the relevant activities of the investee).

Generally, there is a presumption that a majority of voting rights results in control. When the Company has, directly or indirectly, less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

- (a) the contractual arrangement with the other vote holders of the investee;
- (b) rights arising from other contractual arrangements; and
- (c) the Group's voting rights and potential voting rights.

The financial information of the subsidiaries is prepared for the same reporting period as the Company, using consistent accounting policies. The results of subsidiaries are consolidated from the date on which the Group obtains control, and continue to be consolidated until the date that such control ceases.

Profit or loss and each component of other comprehensive income are attributed to the owners of the parent of the Company and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control described above. A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction.

If the Group loses control over a subsidiary, it derecognises (i) the assets (including goodwill) and liabilities of the subsidiary, (ii) the carrying amount of any non-controlling interest and (iii) the cumulative translation differences recorded in equity; and recognises (i) the fair value of the consideration received, (ii) the fair value of any investment retained and (iii) any resulting surplus or deficit in profit or loss. The Group's share of components previously recognised in other comprehensive income is reclassified to profit or loss or retained profits, as appropriate, on the same basis as would be required if the Group had directly disposed of the related assets or liabilities.

3. CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES

The Group has adopted the following revised IFRSs for the first time for the current year's financial statements.

Amendments to IFRS 3	<i>Reference to the Conceptual Framework</i>
Amendments to IAS 16	<i>Property, Plant and Equipment: Proceeds before Intended Use</i>
Amendments to IAS 37	<i>Onerous Contracts – Cost of Fulfilling a Contract</i>
<i>Annual Improvements to IFRS Standards 2018-2020</i>	Amendments to IFRS 1, IFRS 9, Illustrative Examples accompanying IFRS 16, and IAS 41

The nature and the impact of the revised IFRSs that are applicable to the Group are described below:

- (a) Amendments to IFRS 3 replace a reference to the previous *Framework for the Preparation and Presentation of Financial Statements* with a reference to the *Conceptual Framework for Financial Reporting* (the “**Conceptual Framework**”) issued in March 2018 without significantly changing its requirements. The amendments also add to IFRS 3 an exception to its recognition principle for an entity to refer to the Conceptual Framework to determine what constitutes an asset or a liability. The exception specifies that, for liabilities and contingent liabilities that would be within the scope of IAS 37 or IFRIC 21 if they were incurred separately rather than assumed in a business combination, an entity applying IFRS 3 should refer to IAS 37 or IFRIC 21 respectively instead of the Conceptual Framework. Furthermore, the amendments clarify that contingent assets do not qualify for recognition at the acquisition date. The Group has applied the amendments prospectively to business combinations that occurred on or after 1 January 2022. As there were no business combinations during the year, the amendments did not have any impact on the financial position and performance of the Group.

- (b) Amendments to IAS 16 prohibit an entity from deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Instead, an entity recognises the proceeds from selling any such items, and the cost of those items as determined by IAS 2 *Inventories*, in profit or loss. The Group has applied the amendments retrospectively to items of property, plant and equipment made available for use on or after 1 January 2021. Since there was no sale of items produced prior to the property, plant and equipment being available for use, the amendments did not have any impact on the financial position or performance of the Group.
- (c) Amendments to IAS 37 clarify that for the purpose of assessing whether a contract is onerous under IAS 37, the cost of fulfilling the contract comprises the costs that relate directly to the contract. Costs that relate directly to a contract include both the incremental costs of fulfilling that contract (e.g., direct labour and materials) and an allocation of other costs that relate directly to fulfilling that contract (e.g., an allocation of the depreciation charge for an item of property, plant and equipment used in fulfilling the contract as well as contract management and supervision costs). General and administrative costs do not relate directly to a contract and are excluded unless they are explicitly chargeable to the counterparty under the contract. The Group has applied the amendments prospectively to contracts for which it has not yet fulfilled all its obligations at 1 January 2022 and no onerous contracts were identified. Therefore, the amendments did not have any impact on the financial position or performance of the Group.
- (d) *Annual Improvements to IFRS Standards 2018-2020* sets out amendments to IFRS 1, IFRS 9, Illustrative Examples accompanying IFRS 16, and IAS 41. Details of the amendment that is applicable to the Group are as follows:
- IFRS 9 *Financial Instruments*: clarifies the fees that an entity includes when assessing whether the terms of a new or modified financial liability are substantially different from the terms of the original financial liability. These fees include only those paid or received between the borrower and the lender, including fees paid or received by either the borrower or lender on the other's behalf. The Group has applied the amendment prospectively from 1 January 2022. As there was no modification or exchange of the Group's financial liabilities during the year, the amendment did not have any impact on the financial position or performance of the Group.

4. OPERATING SEGMENT INFORMATION

For management purposes, the Group is not organised into business units based on their products and only has one reportable operating segment. Management monitors the operating results of the Group's operating segment as a whole for the purpose of making decisions about resource allocation and performance assessment.

Geographical information

(a) *Revenue from external customers*

All external revenue of the Group during the year was attributable to customers in Mainland China.

(b) *Non-current assets*

	2022 <i>RMB'000</i>	2021 <i>RMB'000</i>
Mainland China	1,354,914	1,162,519
Other countries	970	4,235
	<u>1,355,884</u>	<u>1,166,754</u>

The non-current asset information above is based on the locations of the assets.

Information about major customers

Revenue from each major customer which accounted for 10% or more of the Group's revenue during the year is set out below:

	2022 <i>RMB'000</i>	2021 <i>RMB'000</i>
Customer A	191,396	48,291
Customer B	66,730	32,852
Customer C	59,005	28,223
	<u>59,005</u>	<u>28,223</u>

5. REVENUE, OTHER INCOME AND GAINS

An analysis of revenue is as follows:

	2022 <i>RMB'000</i>	2021 <i>RMB'000</i>
<i>Revenue from contracts with customers</i>	<u>515,960</u>	<u>158,704</u>

Revenue from contracts with customers

(a) *Disaggregated revenue information*

	2022 <i>RMB'000</i>	2021 <i>RMB'000</i>
Type of goods		
Sale of products	<u>515,960</u>	<u>158,704</u>
Timing of revenue recognition		
Goods transferred at a point in time	<u>515,960</u>	<u>158,704</u>

Geographical markets

All of the Group's revenue was generated from customers located in Mainland China during the year.

The following table shows the amount of revenue recognised in the current reporting period that was included in the contract liabilities at the beginning of the reporting period:

	2022 <i>RMB'000</i>	2021 <i>RMB'000</i>
Revenue recognised that was included in contract liabilities at the beginning of the reporting period:		
Sale of products	<u>1,290</u>	<u>–</u>

(b) Performance obligations

Information about the Group's performance obligations is summarised below:

Sale of products

The performance obligation is satisfied upon acceptance of the goods and payment is generally due within one month to three months.

Provision of research and development services

The performance obligation is satisfied upon finalisation, delivery and acceptance of the services/deliverables and payment of the goods and payment is generally due within 30 days from the date of billing.

An analysis of other income and gains is as follows:

	2022	2021
	RMB'000	RMB'000
Other income and gains		
Government grants*	16,301	4,264
Bank interest income	5,568	9,101
Foreign exchange gain, net	2,381	–
Others	98	–
	24,348	13,365

* The government grants mainly represent subsidies received from local government authorities to support the Group's research and development activities and operation. During the year, government grants amounting to RMB5,800,000 (2021: RMB1,000,000) were released from deferred government grants.

6. LOSS BEFORE TAX

The Group's loss before tax is arrived at after charging/(crediting):

	<i>Note</i>	2022 RMB'000	2021 RMB'000
Cost of inventories sold		159,891	48,003
Depreciation of property, plant and equipment		47,910	30,895
Depreciation of right-of-use assets		7,389	8,080
Amortisation of intangible assets*		17,536	11,034
Research and development costs		400,338	231,567
Lease payments not included in the measurement of lease liabilities		4,491	651
Auditor's remuneration		2,217	472
Listing expenses		43,138	2,371
Write-down of inventories to net realisable value**		1,839	4,187
Foreign exchange differences, net		(2,381)	5,851
Loss on disposal of items of property, plant and equipment		16	66
Government grants	5	(16,301)	(4,264)
Impairment of trade receivables, net		26	–
Bank interest income	5	(5,568)	(9,101)
Employee benefit expense (excluding directors', chief executive's and supervisors' remuneration):			
Wages and salaries		90,435	55,599
Pension scheme contributions***		18,595	9,038
Staff welfare expenses		4,509	4,997
Share-based payment expense		8,610	9,913
		122,149	79,547

* The amortisation of technology know-how and software is included in "Research and development costs" in the consolidated statement of profit or loss and other comprehensive income. The amortisation of deferred development costs is included in "Cost of sales" in the consolidated statement of profit or loss and other comprehensive income.

** The write-down of inventories to net realisable value is included in "Cost of sales" in the consolidated statement of profit or loss and other comprehensive income.

*** There are no forfeited contributions that may be used by the Group as the employer to reduce the existing level of contributions.

7. FINANCE COSTS

An analysis of finance costs is as follows:

	2022 <i>RMB'000</i>	2021 <i>RMB'000</i>
Interest on bank loans	12,079	10,895
Interest on lease liabilities	416	704
Interest on discounted notes receivable	912	–
	13,407	11,599

8. INCOME TAX

The Group is subject to income tax on an entity basis on profits arising in or derived from the jurisdictions in which members of the Group are domiciled and operate.

The provision for current income tax in Mainland China is based on a statutory tax rate of 25% of the assessable profits of the PRC subsidiary of the Group as determined in accordance with the PRC Corporate Income Tax Law. During the year, the Company was accredited as a High and New Technology Enterprise and was entitled to a preferential income tax rate of 15% in 2022 (2021: 25%).

Pursuant to the relevant tax laws of Singapore, the subsidiary which operates in Singapore was subject to corporate income tax at the rate of 17% (2021: 17%) on the taxable income.

Pursuant to the relevant tax laws of the USA, federal corporation income tax was levied at the rate of 21% (2021: 21%) on the taxable income arising in the USA.

A reconciliation of the tax expense applicable to loss before tax using the statutory rate of the jurisdiction in which the majority of the Group's subsidiaries are domiciled to the tax expense at the effective tax rate is as follows:

	2022 <i>RMB'000</i>	2021 <i>RMB'000</i>
Loss before tax	(331,749)	(225,417)
Tax charged at the statutory tax rate of 25%	(82,937)	(56,354)
Effect of different tax rates enacted by local authorities	124	1,063
Effect of preferential income tax rate enacted by local authority	29,661	–
Additional deductible allowance for research and development costs	(58,005)	(46,793)
Expenses not deductible for tax	27	444
Exempted debts subject to tax	–	11,039
Deemed income subject to tax	1,132	2,330
Deductible temporary difference and tax losses not recognised	109,998	88,271
Tax charge at the Group's effective tax rate	–	–

9. DIVIDENDS

No dividends have been paid or declared by the Company during year (2021: Nil).

10. LOSS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT

The calculation of the basic loss per share amount is based on the loss for the year attributable to ordinary equity holders of the parent, and the weighted average number of ordinary shares of 498,612,595 in issue during the year. The weighted average number of ordinary shares of 478,577,465 for the year ended 31 December 2021 was retrospectively adjusted on the assumption that the conversion to ordinary shares with par value of RMB1.00 each due to the Company's conversion to a joint stock company had been completed on 1 January 2021.

The Group had no potentially dilutive ordinary shares in issue during the years ended 31 December 2022 and 2021.

11. TRADE AND NOTES RECEIVABLES

	2022 <i>RMB'000</i>	2021 <i>RMB'000</i>
Trade receivables	162,623	78,057
Notes receivable	49,527	29,210
	<u>212,150</u>	<u>107,267</u>
Impairment	(26)	–
	<u>212,124</u>	<u>107,267</u>

The Group's trading terms with its customers are mainly on credit. The credit period is generally one to three months, depending on the specific payment terms in each contract. The Group seeks to maintain strict control over its outstanding receivables and has a credit control department to minimise credit risk. Overdue balances are reviewed regularly by senior management. In view of the aforementioned and the fact that the Group's trade receivables relate to a large number of diversified customers, there is no significant concentration of credit risk. The Group does not hold any collateral or other credit enhancements over its trade receivable balances. Trade receivables are non-interest-bearing.

Included in the Group's trade receivables is an amount due from a related party of RMB661,000 (2021: Nil), which is repayable on credit terms similar to those offered to the major customers of the Group.

At 31 December 2022, notes receivable of RMB49,527,000 (2021: RMB29,210,000) whose fair values approximated to their carrying values were classified as financial assets at fair value through other comprehensive income under IFRS 9. The fair value changes of these notes receivable at fair value through other comprehensive income were insignificant.

An ageing analysis of the trade receivables as at the end of the reporting period, based on the invoice date and net of loss allowance, is as follows:

	2022 <i>RMB'000</i>	2021 <i>RMB'000</i>
Within 3 months	161,868	77,858
3 to 6 months	709	113
6 to 12 months	–	86
1 to 2 years	20	–
	162,597	78,057

12. TRADE AND NOTES PAYABLES

	2022 <i>RMB'000</i>	2021 <i>RMB'000</i>
Trade payables	153,043	93,861
Notes payable	7,160	44,853
	160,203	138,714

An ageing analysis of the trade payables as at the end of the reporting period, based on the invoice date, is as follows:

	2022 <i>RMB'000</i>	2021 <i>RMB'000</i>
Within 3 months	108,565	75,185
3 to 6 months	32,827	8,453
6 to 12 months	9,482	5,593
1 to 2 years	1,462	4,548
Over 2 years	707	82
	153,043	93,861

Trade payables are non-interest-bearing and are normally settled on 90-day terms.

The maturity of notes payable is within six months.

At 31 December 2022, notes payable were secured by certain of the deposits amounting to approximately RMB7,160,000 (2021: RMB44,853,000).

13. SHARE CAPITAL

Shares

	2022 RMB'000	2021 <i>RMB'000</i>
Issued and fully paid: 509,278,094 (2021: 498,583,294) ordinary shares	<u>509,278</u>	<u>498,583</u>

A summary of movements in the Company's share capital is as follows:

	Number of shares	Share capital <i>RMB'000</i>
At 1 January 2021	–	–
Issue of ordinary shares upon conversion into a joint stock company	484,000,000	484,000
Issue of ordinary shares	<u>14,583,294</u>	<u>14,583</u>
At 31 December 2021 and 1 January 2022	498,583,294	498,583
Initial public offering (<i>note</i>)	<u>10,694,800</u>	<u>10,695</u>
At 31 December 2022	<u>509,278,094</u>	<u>509,278</u>

Note:

On 30 December 2022, 10,694,800 ordinary shares of par value RMB1.00 each were issued at a price of HK\$19.8 per share in connection with the Company's initial public offering. The proceeds of HK\$11,972,640 (equivalent to RMB10,694,800), representing the par value, were credited to the Company's share capital. The remaining proceeds of HK\$199,784,400 (equivalent to RMB178,461,000) before issuing expenses were credited to the share premium account.

14. RELATED PARTY TRANSACTIONS

The Group's principal related parties are as follows:

Name	Relationship with the Company
Shandong Luye Pharmaceutical Co., Ltd. (" Shandong Luye ")	Shareholder
Mr. Liu Dian Bo	Director of Shandong Luye
Yantai Luye Pharmaceutical Holdings Co., Ltd. (" Yantai Luye ")	Shareholder of Shandong Luye
Nanjing Luye Pharmaceutical Co., Ltd. (" Nanjing Luye ")	Controlled by Shandong Luye
Yantai Luye Drugs Trading Co., Ltd. (" Luye Trading ")	Controlled by Shandong Luye
Shandong International Biotechnology Development Co., Ltd. (" Biotech Park Development ")	Controlled by Mr. Liu Dian Bo
Luye Investment Group Co., Ltd. (" LIG ")	Controlled by Mr. Liu Dian Bo
Geneleap Biotech LLC (formerly known as "Luye Boston Research & Development LLC") (" Luye Boston ")*	Controlled by Mr. Liu Dian Bo
Yantai Yunyue Winery Management Co., Ltd. (" Yunyue Winery ")	Controlled by Mr. Liu Dian Bo
Yantai Cellzone Medical Diagnostics Center Co., Ltd. (" Yantai Cellzone ")	Controlled by Mr. Liu Dian Bo

- * During the year, Luye Boston has ceased to be a related party of the Group. The outstanding balances with the entity are not disclosed as balances with related parties in note (c) below and the periods of the transaction amounts with Luye Boston disclosed in note (a) only covered the periods when it was a related party.

(a) The Group had the following transactions with related parties during the year:

	<i>Notes</i>	2022 RMB'000	2021 <i>RMB'000</i>
Sales of goods to:			
Luye Trading	<i>(i)</i>	840	–
Lease and property management services from:			
Shandong Luye	<i>(ii)</i>	393	164
Biotech Park Development	<i>(ii)</i>	494	–
Testing services from:			
Shandong Luye	<i>(ii)</i>	70	663
Research and development services from:			
Yantai Cellzone	<i>(ii)</i>	2,328	–
EHS management services from:			
Shandong Luye	<i>(ii)</i>	1,173	331
Operation services from:			
Nanjing Luye	<i>(ii)</i>	1,122	925
Facilities maintenance services from:			
Nanjing Luye	<i>(ii)</i>	–	686
Accommodation services from:			
Yunyue Winery	<i>(ii)</i>	107	370
Purchase of welfare goods from:			
LIG	<i>(ii)</i>	196	–
Purchase of materials from:			
Shandong Luye	<i>(ii)</i>	–	2,000
Purchases of property, plant and equipment from:			
Shandong Luye	<i>(ii)</i>	–	25,866
Nanjing Luye	<i>(ii)</i>	–	16,320
Payments on behalf by:			
Shandong Luye	<i>(iii)</i>	17,933	12,783
Biotech Park Development	<i>(iii)</i>	1,991	1,908
Luye Boston	<i>(iii)</i>	111	2,431
Yantai Luye	<i>(iii)</i>	180	–
Repayments to:			
Shandong Luye	<i>(iii)</i>	11,523	4,759
Biotech Park Development	<i>(iii)</i>	1,012	2,358
Luye Boston	<i>(iii)</i>	104	2,400
Advances from:			
Shandong Luye	<i>(iii)</i>	–	2,380
Repayment of advances from:			
Shandong Luye	<i>(iii)</i>	–	229,834

Notes:

- (i) The transaction price was determined on normal commercial terms, negotiated on arm's length basis, and on similar basis as the Group conducted businesses with major customers.
- (ii) The transaction prices were determined on terms mutually agreed between the parties with reference to the actual cost and fees for similar transactions in the market.
- (iii) The payments on behalf and advances were unsecured, interest-free and repayable on demand.

(b) Outstanding balances with related parties:

	2022 <i>RMB'000</i>	2021 <i>RMB'000</i>
Trade receivables:		
Luye Trading	<u>661</u>	<u>–</u>
Notes payable:		
Shandong Luye	<u>–</u>	<u>15,740</u>
Due to related parties:		
Shandong Luye*	11,507	2,378
Biotech Park Development**	1,334	222
Nanjing Luye	1,122	20,094
Luye Boston**	–	31
Yantai Luye**	191	–
Yantai Cellzone	<u>1,164</u>	<u>–</u>
	<u>15,318</u>	<u>22,725</u>
Lease liabilities:		
Shandong Luye	2,448	3,181
Biotech Park Development	5,196	5,620
Nanjing Luye	739	2,186
Luye Boston	<u>–</u>	<u>3,536</u>
	<u>8,383</u>	<u>14,523</u>

* At 31 December 2022, a balance of RMB1,020,000 was trade in nature (2021: RMB148,000), and a balance of RMB10,487,000 was non-trade in nature (2021: RMB2,230,000).

** The balances were non-trade in nature.

Other outstanding balances with related parties were all trade in nature.

The balances with related parties except for lease liabilities are unsecured, interest-free and have no fixed terms of repayment.

(c) Compensation of key management personnel of the Group:

	2022 <i>RMB'000</i>	2021 <i>RMB'000</i>
Salaries, bonuses, allowances and benefits in kind	13,827	9,793
Pension scheme contributions	685	416
Share-based payment expense	<u>13,692</u>	<u>13,572</u>
Total compensation paid to key management personnel	<u>28,204</u>	<u>23,781</u>

MANAGEMENT DISCUSSION AND ANALYSIS

Business Overview

Established in 2013, Boan Biotech is a fully-integrated biopharmaceutical company that specializes in developing, manufacturing and commercializing therapeutic antibodies, with a focus on oncology, autoimmune diseases, ophthalmology, and metabolic diseases. Our antibody discovery is based on three technology platforms: Human Antibody Transgenic Mouse and Phage Display Technology Platform, Bispecific T-cell Engager Technology Platform and Antibody-drug Conjugates (“ADC”) Technology Platform. As of the date of this announcement, our product portfolio currently includes two commercialized products, seven investigational antibodies protected by international intellectual property rights, and four biosimilar candidates.

We operate across the entire value chain of the industry from antibody discovery, cell line development, upstream and downstream process development, analytical and bio-analytical method development, and technology transfer to pilot and commercial production. In addition to the People’s Republic of China (the “PRC” or “China” or “mainland China”), we also conduct biopharmaceutical product development in the United States (“U.S.”) and the European Union (“EU”).

2022 Review: Memorable year with significant achievements

With the achievement of a series of major milestones, 2022 was a memorable year for us. We have made significant achievements in all aspects of pipeline development, sales and marketing, manufacturing and business collaboration.

As of the date of this announcement, two of our products (Boyounuo[®] (BA1101) and Boyoubei[®] (BA6101)) have been successfully marketed in mainland China. During the Reporting Period, we recorded an increase in revenue of 225.1% to RMB516.0 million as compared to that of 2021, which demonstrated our capability to bring our biologics portfolio to market. In January 2023, two new indications of Boyounuo[®] were successfully included in the updated China’s National Reimbursement Drug List (“NRDL”) and Boyoubei[®] obtained the code of NRDL. In addition, we have granted CP Pharmaceutical Qingdao Co., Ltd. (“CP Qingdao”) the exclusive right to commercialize Boyoubei[®] in mainland China, details of which have been disclosed in the Company’s announcement dated 10 January 2023. We believe the reimbursement arrangement for Boyounuo[®] under the NRDL and the commercialization collaboration for Boyoubei[®] could help these products achieve continuous growth in sales.

From the beginning of 2022 to the date of this announcement, one new product (Boyoubei[®]) of us has been approved by the National Medical Products Administration of China (“NMPA”) for marketing in China. Three product candidates of us have remarkable progress in phase 3 clinical trials. BA1102 completed its phase 3 clinical trial and filed biologics license application (“BLA”) in China in March 2023. BA9101 completed patient enrollment of its phase 3 clinical trial in China in March 2023. BA5101 entered into its phase 3 clinical trial in China in July 2022. In addition, we also have multiple impressive progress in innovative product pipeline in China. 4 of them entered into phase 1 clinical trials, 1 of them received investigational new drug (“IND”) approval and 1 of them submitted IND application. In addition to China, our BA6101 and BA1102 also completed the patient enrollment for their international phase 1 clinical trials and are planning for their international phase 3 clinical trials.

In order to improve our R&D capabilities and industry influence, we have expanded our R&D team, issued new patents and published research papers. As of 31 December 2022, our R&D team expanded to 285 experienced employees covering biopharmaceutical discovery research, biotechnology research, biopharmaceutical analysis research, biological activity research, non-clinical research, pilot process research, clinical research, regulatory affairs, project management and intellectual property and other R&D functions. From the beginning of 2022 to the date of this announcement, we had 21 patents granted worldwide and we also published 7 new research papers.

We have sufficient production capacity to meet the current commercial needs of our products. As of the date of this announcement, we have commercial production capacity of 8,000L and pilot production capacity of 1,700L. We also have multiple production lines under development: two production lines with 2*500L capacity for pilot production and two production lines with 3*2,000L capacity for commercial production.

On 30 December 2022 (the “**Listing Date**”), we completed our initial public offering (the “**Global Offering**”) and our shares were listed on the Main Board of The Stock Exchange of Hong Kong Limited (the “**Stock Exchange**”). On 13 March 2023, we were included both in the list of stocks under Shanghai–Hong Kong Stock Connect and Shenzhen–Hong Kong Stock Connect.

Apart from the abovementioned achievements, we also believe the following strengths and progress have contributed towards our success and differentiate us from other biopharmaceutical companies.

Risk-balanced product pipeline

We, through years of efforts and dedication, have incubated a robust and risk-balanced portfolio, which brings us clear short-term commercial visibility and allows us to pursue long-term sustainable growth. Specifically, our portfolio, including two commercialized products, seven investigational antibodies, and four biosimilar candidates, as of the date of this announcement, focuses on popular key therapeutic areas including oncology, metabolism, autoimmunity and ophthalmology, which entail significant unmet market demand and potential in China and overseas.

The following table summarizes our Commercialized Products and drug candidate pipeline under development in China and worldwide across various therapeutic areas as of the date of this announcement:

Therapeutic area	Product (reference drug)	Target	Indication	Commercial rights	Clinical trial region	Developmental stages					BLA approved	
						Pre-clinical	IND	Phase 1	Phase 2	Phase 3		BLA filed
Innovative Antibody Portfolio	BA1105	Claudin 18.2 (ADCC)	Advanced gastric cancer, metastatic pancreatic cancer, and adenocarcinoma of the esophagogastric junction	Worldwide	China	↑	↑	↑				
	BA1301	Claudin 18.2 ADC	Gastric cancer, pancreatic cancer, and esophageal cancer	Worldwide	China	↑	↑					
	BA1201	PD-L1/TGF-β	SCLC, NSCLC, cervical cancer, urothelial carcinoma, and advanced gastrointestinal tumors	Worldwide	China	↑	↑	↑				
	BA1202	CEA/CD3	CRC, pancreatic duct adenocarcinoma, etc.	Worldwide	China	↑						
	BA1106	CD25	Solid tumor	Worldwide	China	↑						
	BA1302	CD228 ADC	CRC, breast cancer, NSCLC, pancreatic cancer, etc.	Worldwide	China	↑						
	BA2101	IL4R	Atopic dermatitis, asthma, sinusitis, pruritus, urticaria, etc.	Worldwide	China	↑						
		Boyounuo* (BA1101, an Avastin* biosimilar)	VEGF	mCRC, advanced metastatic or recurrent NSCLC, recurrent glioblastoma, epithelial ovarian, fallopian tube or primary peritoneal cancer, and cervical cancer	Worldwide	China	↑	↑	↑	↑	↑	↑
		Boluojia* (BA1102, Xgeva® biosimilar)	RANKL	Bone metastases from solid tumors, and GCTB	Worldwide	China, Overseas	↑	↑	↑	↑	↑	↑
		BA1104 (Opdivo* biosimilar)	PD-1	Melanoma, NSCLC, malignant pleural mesothelioma, RCC, cHL, SCCHN, urothelial carcinoma, colorectal cancer, HCC, esophageal cancer, gastric cancer, gastroesophageal junction cancer, and esophageal adenocarcinoma	Worldwide	China, Overseas	↑					
Metabolism	Boyoubet* (BA6101, Prolia* biosimilar)	RANKL	Osteoporosis	Worldwide	China, Overseas	↑	↑	↑	↑	↑	↑	
	BA5101 (Trulicity* biosimilar)	GLP-1	Type 2 diabetes	Worldwide	China, Overseas	↑	↑	↑	↑	↑	↑	
Ophthalmology	BA9101 (Eyelea* biosimilar)	VEGF	wAMD, RVO, DME, and DR	Worldwide	China, Overseas	↑	↑	↑	↑	↑	↑	

Commercialized products

Boyounuo® (bevacizumab injection): an anti-VEGF humanized monoclonal antibody injection and a biosimilar to Avastin® independently developed by us; approved for marketing by the NMPA in April 2021.

In February 2022, Boyounuo® obtained the NMPA approvals to extrapolate its indications to epithelial ovarian, fallopian tube or primary peritoneal cancer and cervical cancer. As of the date of this announcement, Boyounuo® has been approved by the NMPA for the treatment of mCRC, advanced metastatic or recurrent non-small cell lung cancer, recurrent glioblastoma, epithelial ovarian, fallopian tube or primary peritoneal cancer and cervical cancer.

In January 2023, 2 new indications of Boyounuo® were successfully included in the updated NRDL. As of the date of this announcement, Boyounuo® has been included in the updated NRDL for all 5 indications. The approval and reimbursement could further enhance the accessibility of our high-quality bevacizumab injection and alleviate financial burden for Chinese patients and their families.

Boyoubei® (denosumab injection): a human immunoglobulin G2 monoclonal antibody of the RANK ligand and the first biosimilar to Prolia® independently developed by us; approved for marketing by the NMPA in November 2022.

In November 2022, Boyoubei® was approved for the treatment of postmenopausal women with osteoporosis at high risk for fracture. This product can significantly reduce the risk of vertebral, non-vertebral and hip fractures in postmenopausal women. As far as the Company is aware, Boyoubei® is the first biosimilar to Prolia® approved for marketing in the world. In addition to China market, Boyoubei® is being developed in Europe and the U.S., with a plan to be marketed in the global markets. In December 2022, Boyoubei® obtained the code of NRDL and the reimbursement could lay the foundation for rapid commercialization of Boyoubei® in the future.

Products to be commercialized in the near future

BA1102 (denosumab injection): a fully human IgG2 anti-RANKL monoclonal antibody and a biosimilar to Xgeva® independently developed by us.

BA1102 is a biosimilar of XGEVA®. Its active ingredient is denosumab, a fully human IgG2 anti-RANKL monoclonal antibody. Denosumab binds to RANKL and it inhibits the activation of OPG/RANKL/RANK signaling pathways, and thus inhibits tumor growth and reduces bone destruction. BA1102 is indicated for the treatment of patients with bone metastases from solid tumors and patients with multiple myeloma, to delay or reduce the risk of skeletal-related events (e.g. pathologic fractures, spinal cord compression, bone radiotherapy or bone surgery). The drug is also indicated for the treatment of adults and skeletally mature adolescents (defined as having at least one mature long bone and with body weight of 45 kg or above) with giant cell tumor of bone (“**GCTB**”) that is unresectable or where surgical resection is likely to result in severe morbidity.

In March 2023, the BLA of BA1102 has been accepted by NMPA in China. In addition to China market, BA1102 is being developed in Europe and the U.S., with a plan to be marketed in the global markets.

BA9101 (aflibercept intravitreal injection): a recombinant human vascular endothelial growth factor receptor antibody fusion protein ophthalmic injection and a biosimilar to Eylea®.

Aflibercept is a homodimeric fusion protein consisting of portions of human vascular endothelial growth factor receptor (“**VEGFR**”) extracellular domains (VEGFR 1 Ig2 and VEGFR 2 Ig3) fused to the Fc portion of human IgG1. Aflibercept acts as a soluble decoy receptor that binds VEGF-A, VEGF-B and PlGF, and thereby can inhibit the binding and activation of VEGF and PlGF, so it can be used as the treatment for pathological neovascular ophthalmopathy of retina and choroid. EYLEA® was approved by the U.S. Food and Drug Administration in 2011 and currently it was approved for the treatment of Neovascular (Wet) Age-Related Macular Degeneration (“**wAMD**”), Macular Edema Following Retinal Vein Occlusion (RVO), Diabetic Macular Edema (“**DME**”), Diabetic Retinopathy (DR) and Retinopathy of Prematurity (ROP) worldwide. Aflibercept was approved in 2018 in China for the treatment of wAMD and DME.

In March 2023, BA9101 completed the patient enrollment for its phase 3 clinical trial in China. Pursuant to a collaboration and exclusive promotion agreement entered in October 2020, we jointly developed BA9101 with Ocumension Therapeutics (Stock code: 1477) in the phase 3 clinical trial of BA9101. We have granted Ocumension Therapeutics an exclusive right to promote and commercialize BA9101 in mainland China. We believe that Ocumension Therapeutics, as a well-known ophthalmology company with a professional team, will accelerate the clinical trials and commercialization of BA9101 to meet the urgent clinical needs of Chinese patients and strengthen our position in the field of biological products.

BA5101 (dulaglutide injection): a long-acting glucagon-like peptide-1 (GLP-1) receptor agonist and a biosimilar to Trulicity® independently developed by us.

Dulaglutide can activate GLP-1 receptor and increase the intracellular cyclic AMP (cAMP) in beta cells leading to glucose-dependent insulin release. It can also decrease glucagon secretion and delays gastric emptying. Compared with other original glucose-reducing drugs, its advantages are that it can improve pancreatic islet beta cells function, effectively reduce glycemia and HbA1c levels, and rarely cause hypoglycemia. It can also reduce weight and reduce the risk of major adverse cardiovascular events. A number of relevant clinical studies have shown that it is a safe and effective long-acting drug for type 2 diabetes medication. Its once-a-week dosing regimen can reduce the inconvenience of patients when taking the drug, improve compliance and improve the quality of life of patients with type 2 diabetes. BA5101 is indicated for glycemic control in adults with type 2 diabetes mellitus.

In July 2022, BA5101 entered into phase 3 clinical trial (comparative clinical efficacy and safety studies) in China.

Innovative products entered into clinical trials

BA1105: a recombinant anti-Claudin 18.2 fully human IgG1 monoclonal antibody independently developed by us.

Claudin 18.2 protein is a transmembrane protein involved in the regulation of tight junctions between cells, and can be consistently and stably highly expressed in gastrointestinal tumors. BA1105 is a recombinant anti-Claudin 18.2 fully human IgG1 monoclonal antibody, which enhances tumor-killing efficacy by enhancing antibody-dependent cellular cytotoxicity (“ADCC”) effect. BA1105 introduces amino acid mutations in the Fc region to enhance the ADCC effect.

We received the IND approval for BA1105 from the NMPA in September 2021, and initiated the phase 1 clinical trial in January 2022.

BA1201: an anti-PD-L1/TGF- β bispecific antibody fusion protein independently developed by us.

Different from the monoclonal antibodies against a single target, bispecific antibodies can bind to two antigens at the same time and regulate two signal pathways related to the treatment of cancer, which has unique advantages in cancer immunotherapy. BA1201 includes an anti-PD-L1 antibody infused with TGF- β Type II Receptor domain at its C terminal. BA1201 can not only inhibit PD-L1/PD-1 signaling pathway but also inhibit TGF- β /TGF- β RII signaling pathway, which can eliminate immunosuppression and restore the immune system to target tumor cells for killing, making it more potent than anti-PD-L1 monoclonal antibodies.

We began the development of BA1201 in September 2019 and received the IND approval for BA1201 from the Centre for Drug Evaluation (“CDE”) in December 2021. In August 2022, we initiated the phase 1 clinical trial in China.

BA1106: a non-IL-2 blocking anti-CD25 antibody independently developed by us.

BA1106 is the first investigational anti-CD25 antibody to start clinical trials in China for treating solid tumors. Anti-CD25 antibodies are broad-spectrum immuno-oncology drugs with the potential to treat multiple cancers where CD25 is highly expressed, including cervical cancer, renal cancer, ovarian cancer, melanoma, pancreatic cancers, hepatocellular carcinoma, gastric cancer, and breast cancer. BA1106 therefore has great potential for treating those cancers. However, developing anti-CD25 antibodies faces two major challenges: first, the function of Fc as a mediator is limited, and as a result, they only work in early-stage tumor models, not in late-stage tumor models; second, the IL-2 signaling pathway is blocked, leading to poor antitumor outcomes. BA1106 is a drug candidate that can successfully overcome these two challenges.

The main mechanism of action of BA1106 is to deplete Treg cells in the tumor microenvironment through the ADCC and increase the number of effector T cells. Preclinical studies have shown that BA1106 demonstrated a good therapeutic effect on both early-stage and late-stage tumor models as well as a synergy when used in combination with an anti-PD-1 antibody. Moreover, BA1106 does not block the IL-2 signaling pathway, and depletes Treg cells moderately and specifically, with the potential for monotherapy and combination therapy. The results of the study on BA1106 have been published in *Scientific Reports*, a journal of *Nature*.

In September 2022, we received the IND approval from CDE for BA1106 and initiated the phase 1 clinical trial in February 2023 in China.

BA2101: a long-acting human monoclonal antibody of the IgG4 subtype that targets interleukin-4 receptor subunit α (IL-4R α) independently developed by us.

Recognized as a Class 1 innovative biological product in China, BA2101 is the first long-acting anti-IL-4R α monoclonal antibody that enters the clinical trial stage in the country. It is intended to be used for treating allergic diseases caused by Th2 inflammation, including atopic dermatitis, asthma, chronic rhinosinusitis with nasal polyps, prurigo nodularis, and chronic spontaneous urticaria (CSU).

The drug can inhibit IL-4 and IL-13 signaling simultaneously, regulate Th2 inflammatory pathway, and reduce eosinophils and circulating IgE levels. It is designed to be administered subcutaneously with an expected dosing interval of 4 weeks.

IL-4R α is a key target for the treatment of Th2 inflammatory diseases, and the long-acting mechanism of BA2101 makes it easier to provide a long-term and standard treatment for such diseases. Preclinical studies show that BA2101 has a longer half-life and higher drug exposure in cynomolgus monkeys than the marketed product with the same target. BA2101 may be administered once every 4 weeks in humans, while drugs with the same target usually adopt a 2-week dosing interval. BA2101 is more convenient for clinical use, providing important clinical value in the long-term management of Th2 inflammatory diseases.

We received the IND approval for BA2101 in October 2022 and initiated the phase 1 clinical trial in February 2023 in China.

BA1301: an ADC candidate that targets Claudin 18.2 developed by us.

BA1301 for injection is our first novel ADC candidate that targets Claudin 18.2. It employs a site-specific conjugation technology to connect the cytotoxic payload with a monoclonal antibody that targets Claudin 18.2. This enables the cytotoxic payload to be directed to the tumor site through the targeting characteristics of the antibody. Such design reduces the toxic side effects of the cytotoxic payload, thus improving the therapeutic window, while retaining its tumor-killing effect.

We submitted the IND application for BA1301 in October 2022 and received the IND approval in January 2023 in China.

Well-established commercialization capability

We have successfully expanded our commercial portfolio into two products (Boyounuo[®] and Boyoubei[®]) spanning over multiple therapeutic areas.

During the Reporting Period, we have increased product revenue by 225.1% to RMB516.0 million, compared to RMB158.7 million in the previous year, mainly driven by the solid growth of our first marketed product Boyounuo[®] (bevacizumab injection) coupled with the launch of new product Boyoubei[®] (denosumab injection).

Leveraging our well-established and demonstrated commercialization capability backed by marketing strategies implemented by our dedicated sales and marketing team, we believe that we are well positioned to achieve speed-to-market and rapid ramp-up of product sales. Internally, we have a dedicated in-house sales and marketing team with extensive industry experience, and they develop and implement marketing and sales initiatives and plans of our product and drug candidates in their scheduled rollouts. As of 31 December 2022, our in-house sales and marketing team consisted of 40 employees. Externally, we collaborate with various resourceful business partners which lay the foundation for our strong commercialization capability. As of 31 December 2022, we engaged 43 third party promoters providing us with promotional services. Our collaboration with experienced third-party promoters effectively publicizes and maximize market potential of our products.

We had an extensive distribution network of more than 200 distributors as of 31 December 2022, penetrating selected regions and reaching more than 1,300 target hospitals and institutions in China.

In January 2023, we have granted the CP Qingdao the exclusive right to commercialize Boyoubei[®] in mainland China. CP Qingdao has been focusing on osteoporosis therapeutic field for many years with multiple products. Their core product in this field has a leading position in the market of mainland China. Boyoubei[®] may form a competitive product portfolio with their current products in this field to achieve greater synergies. We believe that we can leverage on CP Qingdao's professional marketing and sales team and extensive distribution network in this field to accelerate the commercialization of Boyoubei[®] to meet the urgent clinical needs of Chinese patients.

Strong R&D capabilities

We have a fully-fledged proprietary R&D technology platform focusing on antibody discovery and drug development. We have R&D teams and facilities located in Yantai and Nanjing in China and Boston in the U.S., with rich experience and strong track records in drug discovery and development. In terms of technology, we boast proprietary Human Antibody Transgenic Mouse and Phage Display Technology Platform, Bispecific T-cell Engager Technology Platform and ADC Technology Platform which we believe provide us with great technological support.

Our high caliber R&D team has outstanding execution capability in drug development with a proven track record. As of 31 December 2022, our R&D team consisted of 285 experienced employees covering biopharmaceutical discovery research, biotechnology research, biopharmaceutical analysis research, biological activity research, non-clinical research, pilot process research, clinical research, regulatory affairs, project management and intellectual property and other R&D functions, most of whom had R&D and clinical experience of more than six years.

As a biopharmaceutical company, we are keenly aware of the importance of establishing and protecting our intellectual property rights. We have filed a number of patent applications for our drug candidates in various jurisdictions, and expect to rely on a combination of patents, trademarks, trade secrets and other intellectual property rights, as well as employee and third-party confidentiality agreements, in order to safeguard our intellectual properties. As of 31 December 2022, we had 25 granted patents and 45 pending patent applications worldwide.

Underpinned by our strong R&D capability, we have published 12 research papers in world-renowned academic journals including Cell Discovery of Nature, Antibody Therapeutics, and Cancer Communications, introducing our research breakthroughs on some of our drug candidates.

Strong chemistry, manufacturing and controls (“CMC”) capability

We take pride in our strong CMC capability which is the backbone of the high quality and cost efficiency we have maintained throughout the process of our drug development and commercial production, especially in cell line development, upstream and downstream process development, analytical and bio-analytical method development as well as technology transfer. Our CMC function establishes practical qualitative and quantitative standards for us to maintain product quality and effectively progresses drug discovery to actual manufacturing.

We have a sizable pilot and commercial production site located in Yantai, China. We employ a robust quality management system for the Yantai Site that meets various quality standards such as good manufacturing practice set by the relevant regulatory authorities of China and the EU and has passed a number of audits in China and the EU. Our Yantai Site, having a total gross floor area of approximately 33,504.1 sq.m., houses a number of production lines with a total capacity of 1,700L for pilot production and 8,000L for commercial production, as well as two formulation filling lines for both pilot and commercial production as of the date of this announcement. Our production is managed by a strong manufacturing team, which as of 31 December 2022 had a total of 384 employees.

Besides production capacity, our proprietary manufacturing capability, such as perfusion culture and fed-batch culture, provides flexibility and improves the throughput and production efficiency. Our Yantai Site is also highly versatile, adaptable to manufacturing drugs targeting different antibodies, and is capable of producing various formulations. To further improve production cost efficiency, we utilize digital management in production.

Our strong CMC capability accumulated through years of effort shortens drug development time and enables speed-to-market. We believe such capability is a formidable barrier to competitors and has paved the way for our early-mover advantage.

Extensive collaboration with various resourceful business partners

Our collaboration with experienced third-party promoters effectively publicizes and maximizes the market potential of our products. For example, in May 2021, we entered into an agreement with AstraZeneca China, as amended by a supplemental agreement dated 7 March 2022, regarding the promotion rights to Boyounuo® for a term of five years, under which we agreed to grant to AstraZeneca China exclusive promotion rights in certain cities and counties of various provinces and autonomous regions in China. We have seen significant progress delivered by our collaboration with AstraZeneca China, which has contributed its years of broad market coverage and channel development in China. Through our joint efforts with AstraZeneca China, as of 31 December 2022, Boyounuo® had an coverage in 31 provinces, autonomous regions and municipalities in China.

In January 2023, we have granted CP Qingdao the exclusive right to commercialize Boyoubei® in mainland China. The term of the agreement is five years, upon expiry of which CP Qingdao has the first right to renew the grant of exclusive commercialization rights of this product under the same conditions. CP Qingdao has been focusing on osteoporosis therapeutic field for many years with multiple products. Their core product in this field has a leading position in the market of mainland China. Boyoubei® may form a competitive product portfolio with their current products in this field to achieve greater synergies. We believe that, leveraging CP Qingdao's professional marketing and sales team and extensive distribution network in this field will accelerate the commercialization of Boyoubei® to meet the urgent clinical needs of Chinese patients.

Apart from our success in the commercialization of our launched products, we also pay close attention to identify and maximize early commercialization opportunities of advanced drug candidates. For example, on 28 October 2020 we entered into an agreement with OcuMension, as amended by a supplemental agreement dated 31 May 2021, regarding the product development cooperation and promotion and commercialization of BA9101 in China for a term of 10 years, under which we granted OcuMension certain exclusive rights to promote and commercialize BA9101 in China. In March 2023, BA9101 completed the patient enrollment for its phase 3 clinical trial in China. We believe that our collaboration with Ocumension Therapeutics, as a well-known ophthalmology pharmaceutical company with a professional team, will accelerate the clinical trials and commercialization of BA9101 to meet the urgent clinical needs of Chinese patients and strengthen our position in the field of biological products.

2023 Outlook

On 30 December 2022, we were listed on the Main Board of the Stock Exchange. As our first year in the capital market, we anticipate that 2023 will be a harvest year with revenue growth of commercialized products and a transformative year to speed up our pipeline progress in innovative antibodies. Our vision is to become a leading biopharmaceutical company. We plan to expand our overseas footprint leveraging our strengths and the leading position we are thriving to maintain in China. In order to achieve our vision and goals, we plan to pursue the following strategies.

Further strengthen our marketing capability and accelerate the commercialization of our drug candidates leveraging our experience in commercializing Boyounuo®

We plan to continue to strengthen our commercialization capability, which is critical to our future success and profitability. Particularly, we plan to enhance the market share of Boyounuo® by expanding our sales and marketing team and strengthening our distribution channels to cover more target hospitals. Our distributors and promoters support us in the sales and marketing of our products. Therefore, we plan to broaden our nationwide sales and distribution network through collaboration with sizable distributors having comprehensive distribution channels to reach more target hospitals with potential strong demand of our products. We also plan to continue to expand our experienced and professional sales and marketing team in China, which mainly focuses on market access, medical affairs, and any other promotional initiatives in the therapeutic areas of oncology, metabolism, autoimmunity and ophthalmology. To promote our products nationwide, we intend to selectively enter into promotion agreements with reputable pharmaceutical companies and continue to collaborate with leading key opinion leaders in market education and product promotion. For hospital coverage, we will endeavour to enhance the penetration rate of hospitals in China with tailored strategies for our specific products.

Establishing our marketing network and expanding our overseas footprint is instrumental to our vision of becoming a leading global biopharmaceutical company. We plan to expand our presence into international markets through a number of ways in selected markets or regions including accelerating clinical trial plans, identifying and working with suitable distributors and collaborating with international reputable industry players on business development.

Accelerate clinical development of our pipeline products towards commercialization in selected overseas markets

We plan to continue to accelerate clinical trials of drug candidates and regulatory approval towards commercialization. Specifically, in order to launch potential first-to-market biosimilar drugs with leading market share, we will continue to strengthen our competitive edge on biosimilar drug development to enhance commercialization visibility. We will also implement our first-to-market clinical development strategy, especially for our innovative antibody drug candidates focusing on oncology with unmet medical needs, to accelerate the clinical trial and regulatory approval.

To strengthen our innovative antibody drug pipeline and accelerate clinical development, with excellent drug development skills, we seek to maintain a risk-balanced portfolio with a strategic combination of mature targets and new targets aiming to become first-in-class drugs.

Enrich our innovative antibody portfolio to maximize our long-term commercial potential

Leveraging our strong R&D capability and proprietary technology platforms, we plan to continue to develop innovative antibody drug candidates with strategically selected antibody targets and huge market potential. For example, we will continue to optimize our proprietary technology platforms to support the development of our innovative antibody drug pipeline and advance clinical studies for new programs. We will also selectively pursue strategic collaborations with respect to product license-in to enrich our portfolio and support our long-term sustainable growth. In particular, we will prioritize license-in of products and product candidates focusing on oncology, with innovative targets or developed through advanced technology platforms to enrich our portfolio and strengthen R&D competitiveness. We plan to enhance our R&D resources by hiring talent with extensive international drug discovery and development experience and by improving our R&D facilities and infrastructure.

Continue to expand in-house manufacturing capability

To support the growing sales of Boyounuo® and anticipated upcoming product launches, we plan to increase our investment in manufacturing equipment to expand manufacturing capacity, including two production lines each with three 2,000L single-use bioreactors for commercial production, to fulfill the anticipated large demand for commercialized products. We will seek to develop and optimize in-house process technologies, upgrade our production facilities, enhance production know-how, as well as introduce a new technology platform, with a view to retaining high-cost efficiency and production quality. We also plan to expand our in-house manufacturing and quality control team by attracting and retaining experienced talent with in-depth know-how.

Explore collaboration with reputable international partners to expand overseas presence

Our integrated biopharmaceutical platform built upon in-house capabilities throughout the entire biologics value chain enables us to expand our overseas presence. We will maximize the value of our platform by exploring collaboration with reputable international partners in a number of ways. For example, we plan to selectively enter into strategic cooperation including license-out or co-development with international partners to facilitate the clinical development and commercialization of our drug candidates overseas, broadening our geographic coverage. For example, we may cooperate with business partners including promoters and distributors to commercialize BA1102, BA6101 and BA5101. We may explore co-development opportunities with leading global pharmaceutical companies and academic institutions to enhance our technology platforms. To commercialize our drug candidates outside of China to maximize their market potential, we will selectively collaborate with strategic partners. Finally, we plan to enter into license-in collaboration with selected international partners, including products at pre-clinical and clinical development stages, and products that have completed clinical trials, where we can leverage our regulatory affairs and commercialization capability to commercialize the in-licensed products and diversify our future revenue stream. We will select international partners which conduct R&D in the same indication areas with ours or have products or product candidates complementary to our product candidates, especially having late-stage clinical product candidates in oncology, diabetes, and orthopedics, with certain validation of clinical results.

FINANCIAL REVIEW

Revenue

During the Reporting Period, the Group has built a dedicated commercialization team by use of proactive marketing strategy and efficient executive capability in sales, through which the Group rapidly established a foothold in the domestic market laying a solid foundation for the subsequent transformation of the Company. With the commercialization of two products, the Group witnessed a significant increase in revenue during the Reporting Period.

For the year ended 31 December 2022, the Group's revenue amounted to approximately RMB516.0 million, as compared to RMB158.7 million for the year ended 31 December 2021, representing an increase of approximately RMB357.3 million, or 225.1%. The increase was mainly attributable to the growth of sales of Boyounuo® (BA1101) in China and the launch of Boyoubei® (BA6101) in the end of 2022.

Cost of Sales

Cost of sales of the Group primarily represents materials and consumables, labour costs associated with production, utilities and maintenance fee as well as depreciation and amortisation expenses of production equipment, facilities and intangible assets.

Our cost of sales increased from RMB52.2 million for the year ended 31 December 2021 to approximately RMB161.7 million for the year ended 31 December 2022, which accounted for approximately 31.3% of our total revenue for the same year (2021: 32.9%). The decrease in cost of sales margin was mainly due to the increase of production volume leading lower unit cost of manufacturing in 2022.

Gross Profit

For the year ended 31 December 2022, the Group recorded a gross profit of approximately RMB354.2 million, representing an increase of approximately RMB247.7 million, or 232.6%, as compared with that for the year ended 31 December 2021, mainly due to the gross profit contribution from the two commercialized products of the Company.

Other Income and Gains

Other income and gains consist of government grants, bank interest income, foreign exchange gain and others. Government grants mainly represent subsidies received from local government authorities to support the Group's research and development activities and operation.

During the Reporting Period, the Group recognised other income and gains of approximately RMB24.3 million (2021: RMB13.4 million).

	2022 <i>RMB'000</i>	2021 <i>RMB'000</i>
Government grants	16,301	4,264
Bank interest income	5,568	9,101
Foreign exchange gain, net	2,381	–
Others	98	–
	24,348	13,365

Administrative Expenses

Our administrative expenses increased significantly from RMB42.2 million for the year ended 31 December 2021 to RMB82.3 million for the year ended 31 December 2022, primarily due to the increase in the listing expenses from RMB2.4 million for the year ended 31 December 2021 to RMB43.1 million for year ended 31 December 2022 for the Global Offering.

Selling and Distribution Expenses

For the year ended 31 December 2022, the Group's selling and distribution expenses amounted to RMB214.1 million, as compared to RMB54.0 million for the year ended 31 December 2021, representing an increase of RMB160.1 million, or 296.5%. The increase in selling expenses during the year ended 31 December 2022 was in line with the revenue growth during the same period.

Research and Development Expenses

The following table sets forth a breakdown of the Group's R&D expenses for the years indicated:

	2022 <i>RMB'000</i>	2021 <i>RMB'000</i>
R&D service fees	176,079	82,707
Raw materials and consumables expenses	100,377	54,459
Staff costs and share-based payments	73,558	59,164
Depreciation and amortisation expenses	23,958	23,376
Others	26,366	11,861
	400,338	231,567

For the year ended 31 December 2022, the Group's recognised R&D expenses of approximately RMB400.3 million, representing an increase of approximately RMB168.7 million as compared with that to the year ended 31 December 2021. The increased R&D expenses was mainly due to the increasing investment in R&D projects to accelerate the Company's innovation and transformation.

Finance Costs

For the year ended 31 December 2022, the Group's finance costs amounted to RMB13.4 million, as compared to RMB11.6 million for the year ended 31 December 2021, representing an increase of approximately RMB1.8 million, or 15.5%. The increase was mainly due to the increase in interest expenses incurred on bank loans for the year ended 31 December 2022 resulting from the increase in level of bank borrowings as compared to the corresponding year ended 31 December 2021.

Income Tax Expense

As we were loss-making for the years ended 31 December 2021 and 2022, we did not incur income tax expenses.

Loss for the Year

As a result of the above, our loss for the year amounted to RMB331.7 million for the year ended 31 December 2022, as compared to RMB225.4 million for the year ended 31 December 2021.

Liquidity, Financial and Capital Resources

The Group's primary sources of liquidity consist of cash and cash equivalents, which the Group have historically generated primarily through pre-IPO investments and bank loans. The Company expects that the Group's cash needs in the near future will primarily relate to progressing the development of its drug candidates towards receiving regulatory approval and commencing commercialization, as well as expanding its drug candidate portfolio. In 2022, we actively explored financing channel and managed to maintain our cash position for the Group's sustainable development.

As of 31 December 2022, we had cash and cash equivalents of RMB233.5 million, representing a decrease of 56.1% compared to RMB531.7 million as at 31 December 2021. As at 31 December 2022, the Group had net current assets of approximately RMB375.0 million, as compared to approximately RMB679.4 million as at 31 December 2021. The current ratio of the Group decreased slightly to approximately 1.80 as at 31 December 2022 from approximately 3.61 as at 31 December 2021. The decrease in net current assets was mainly attributable to increased short-term bank loans and higher other payables and accruals under the Group's current liabilities.

As at 31 December 2022, the Group had an aggregate interest-bearing loans and borrowings of approximately RMB293.3 million, as compared to approximately RMB250.0 million as at 31 December 2021. The balances of the bank loans to the Group as at 31 December 2021 and 2022 were mainly due to a RMB250.0 million loan facility granted to the Group in 2021 (the “**Loan**”), which shall be used to settle the Group’s shareholder loans in relation to machinery and equipment under installation for its new production lines. The Loan is due in 2026 and bears a floating interest rate updated per annum which is the latest five-year loan prime rate plus 5 basis points. The other portion of the Group’s current interest-bearing bank loans as at 31 December 2022 was attributable to the discounted notes receivable of RMB22.8 million because the Group discounted certain notes receivable to the bank prior to the notes’ maturity date with effective interest rates within a range between 1.40% to 2.20% to fund its daily operations.

Amongst the loans and borrowings, approximately RMB83.3 million are repayable within one year, and approximately RMB210.0 million are repayable after one year.

Gearing Ratio

As at 31 December 2022, the gearing ratio of the Group, which is calculated by dividing total borrowings by total equity, increased to 20.7% from 16.1% as at 31 December 2021. The increase was primarily due to an increase in the Group’s discounted notes receivable and short-term bank loans during the Reporting Period.

Capital Commitments

The Group has leased certain offices, equipment and buildings under operating lease arrangements ranging from one to five years in duration. The Group had capital commitments for the acquisition of property, plant and equipment with amounts of RMB236.4 million as of 31 December 2022 (2021: RMB109.0 million). They primarily relate to expenditures expected to be incurred for the purchase of machinery and renovation of our existing laboratories and buildings.

Capital Expenditure

The Group’s capital expenditure during the Reporting Period represented purchases of property, plant and equipment to enhance its research and development capabilities and expand its business operation. For the year ended 31 December 2022, the Group’s additions to property, plant and equipment were RMB121.8 million (2021: RMB90.3 million).

Contingent Liabilities

The Group did not have any contingent liabilities as at 31 December 2022.

Charges on Group Assets

As at 31 December 2022, certain of the Group’s property, plant and equipment, right-of-use assets and time deposits with an aggregate amount of RMB387.9 million were pledged to secure its bank loans.

Foreign Exchange and Exchange Rate Risk

The Group primarily operates in the PRC and is exposed to foreign currency risk arising from fluctuations in exchange rate between RMB and other currencies in which the Group conducts its business. The Group is subject to foreign currency risk attributable to the bank balances that are denominated in currencies other than RMB. The Group seeks to limit the exposure to foreign currency risk by minimising its net foreign currency position. The Group did not enter into any hedging transactions in respect of foreign currency risk as at 31 December 2022. The Directors expect that the fluctuation of the RMB exchange rate will not have a material adverse effect on the operation of the Group.

Share-based Payment

In December 2020, the Board passed a resolution to grant equity interests of the Company to the eligible employees (including its directors) in order to provide incentives and rewards to participants for the business development of the Group. Subsequently, three limited partnerships were established as employee incentive platforms in the PRC.

The Group recognised a share-based payment expense of RMB18.5 million during the Reporting Period (2021: RMB21.3 million)

Hedging Activities

As at 31 December 2022, the Group did not use any financial instruments for hedging purposes and did not enter into any hedging transactions in respect of foreign currency risk or interest rate risk.

SIGNIFICANT INVESTMENTS AND FUTURE PLANS FOR MATERIAL INVESTMENTS OR CAPITAL ASSETS

The Group did not hold any significant investment with a value greater than 5% of its total assets as at 31 December 2022. The Group does not have plans for material investments or capital assets.

SUBSEQUENT EVENTS AFTER THE REPORTING PERIOD

After 31 December 2022 and up to the date of this announcement, there was no event occurred that has significantly affected the Group.

PRE-EMPTIVE RIGHTS

There are no provisions for pre-emptive rights under the articles of association of the Company, or the laws of the PRC, which would oblige the Company to offer new shares of the Company on a pro-rata basis to its existing shareholders.

DIVIDEND

No dividends were declared for the year ended 31 December 2022 (2021: Nil).

CORPORATE GOVERNANCE PRACTICES

The Group is committed to maintaining high standards of corporate governance to safeguard the interests of shareholders and to enhance corporate value and accountability. The Company has adopted the Corporate Governance Code (the “**CG Code**”) contained in Appendix 14 to the Rules Governing the Listing of Securities on the Stock Exchange (the “**Listing Rules**”) as its own code of corporate governance.

During the period from the Listing Date to the date of this announcement, the Company has complied with all the applicable code provisions set out in the CG Code in force, except for the following deviation:

Code provision A.2.1 of the CG Code

The roles of chairman and chief executive officer should be separate and performed by different individuals.

Under the current organisation structure of the Company, Ms. Jiang Hua is the chairlady and chief executive officer of the Group. With extensive experience in the pharmaceutical industry, the Board considers that Ms. Jiang Hua should continue to assume the responsibilities of chief executive officer upon Listing as this arrangement will improve the efficiency of our decision-making and execution process given her knowledge of the Group’s affairs. The Company has put in place an appropriate check-and-balance mechanism through the Board and its independent non-executive Directors.

MODEL CODE FOR SECURITIES TRANSACTIONS

The Company has adopted a code of conduct regarding Directors’ securities transactions on terms no less exacting than the required standard set out in the Model Code for Securities Transactions by Directors of Listed Issuer (the “**Model Code**”) set out in Appendix 10 to the Listing Rules. Specific enquiry has been made of all the Directors and supervisors of the Company and the Directors and supervisors of the Company have confirmed that they have complied with the Model Code during the period from the Listing Date to 31 December 2022.

PURCHASE, SALE OR REDEMPTION OF LISTED SECURITIES

There was no purchase, sale and redemption of any listed securities of the Company by the Company or any of its subsidiaries from the Listing Date up to 31 December 2022.

AUDIT COMMITTEE

The audit committee has reviewed together with the Board the accounting principles and policies adopted by the Group, the audited annual results and the audited consolidated financial statements of the Group for the year ended 31 December 2022. The audit committee also approved the annual results and the consolidated financial statements for the year ended 31 December 2022 and submitted them to the Board for approval.

PUBLICATION OF THE AUDITED CONSOLIDATED ANNUAL RESULTS AND 2022 ANNUAL REPORT ON THE WEBSITES OF THE STOCK EXCHANGE AND THE COMPANY

In accordance with the requirements under the Listing Rules applicable to the Reporting Period, the 2022 annual report containing all the information about the Company set out in this announcement including the financial results for the year ended 31 December 2022 will be posted on the Company's website (www.boan-bio.com) and the website of the Stock Exchange (www.hkexnews.hk) and despatched to the shareholders of the Company in due course.

Warning under Rule 18A.08(3) of the Listing Rules: There is no assurance that the Core Products will ultimately be successfully developed and marketed by the Company. Shareholders of the Company and potential investors are advised to exercise caution when dealing in the Shares of the Company.

By order of the Board
Shandong Boan Biotechnology Co., Ltd.
Jiang Hua
*Chairlady, Chief Executive Officer and
Executive Director*

The People's Republic of China, Yantai, 27 March 2023

As at the date of this announcement, the executive directors of the Company are Ms. Jiang Hua and Dr. Dou Changlin; the non-executive directors of the Company are Mr. Liu Yuanchong, Ms. Li Li and Mr. Chen Jie; and the independent non-executive directors of the Company are Mr. Shi Luwen, Mr. Dai Jixiong and Dr. Yu Jialin.