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Shanghai MicroPort MedBot (Group) Co., Ltd.

上海微创医疗机器人(集团)股份有限公司

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

(Stock Code: 2252)

**INTERIM RESULTS ANNOUNCEMENT
FOR THE SIX MONTHS ENDED 30 JUNE 2023**

The Board is pleased to announce the unaudited consolidated interim results of the Group for the six months ended 30 June 2023, together with comparative figures for the six months ended 30 June 2022, which have been reviewed by the Audit Committee.

In this announcement, “we”, “us”, and “our” refer to the Company and where the context otherwise requires, the Group. Certain amounts and percentage figures included in this announcement have been subject to rounding adjustments, or have been rounded to one or two decimal places. Any discrepancies in any tables, charts or elsewhere between totals and sums of amounts listed therein are due to rounding.

FINANCIAL HIGHLIGHTS

	Six months ended 30 June	
	2023	2022
	RMB'000	RMB'000
Revenue	47,603	1,048
Gross profit	22,068	691
Loss before taxation	(544,733)	(463,501)
Loss for the period	(544,733)	(463,501)
Loss attributable to equity shareholders of the Company	(539,012)	(459,052)
Loss per share — Basic and diluted (in RMB)	(0.56)	(0.48)

The Group recorded a revenue of RMB47.6 million for the six months ended 30 June 2023, as compared to the revenue of RMB1.0 million for the six months ended 30 June 2022. The growth in the Group's revenue during the Reporting Period was mainly due to the fact that: (1) Toumai, our Core Product, has utilized its leading advantage in the industry and completed multiple commercial installations to expand its market share rapidly during the Reporting Period; (2) SkyWalker, our flagship product, has achieved excellent commercialization results in China and overseas, it has completed first commercial installation in China and recorded overseas revenue for the Group for the first time; (3) DFVision, our flagship product, achieved steady growth in terms of both revenue and sales volume leveraging on its excellent commercialization base.

The Group recorded a net loss of RMB544.7 million for the six months ended 30 June 2023, as compared to a net loss of RMB463.5 million for the six months ended 30 June 2022, which was primarily due to the fact that: (1) the successive launch of multiple products led to a significant increase in selling and marketing expenses compared to the corresponding period last year; (2) some activities and the corresponding expenses were deferred to second half of the year as the corresponding period last year was under pandemic control; (3) the Group promoted focused business in the beginning of 2023, and the research and development expenses during the Reporting Period decreased as compared to the same period last year, and at the same time, the Group incurred additional one-off adjustment expenses due to our focused business, such as those related to adjustments of leased properties.

CONSOLIDATED STATEMENT OF PROFIT OR LOSS

for the six months ended 30 June 2023 (unaudited)

	Note	Six months ended 30 June	
		2023	2022
		RMB'000	RMB'000
Revenue	3	47,603	1,048
Cost of sales		<u>(25,535)</u>	<u>(357)</u>
Gross profit		22,068	691
Other net (loss)/income	4	(23,214)	16,290
Selling and marketing expenses		(126,907)	(64,160)
Administrative expenses		(77,597)	(65,139)
Research and development costs		(311,696)	(336,411)
Net (loss)/gain on financial instruments carried at fair value through profit or loss (“FVPL”)		(1,916)	9,525
Other operating expenses		<u>—</u>	<u>(616)</u>
Loss from operations		(519,262)	(439,820)
Finance costs	5(a)	(8,623)	(5,558)
Share of losses of equity-accounted investees		<u>(16,848)</u>	<u>(18,123)</u>
Loss before taxation	5	(544,733)	(463,501)
Income tax	6	<u>—</u>	<u>—</u>
Loss for the period		<u>(544,733)</u>	<u>(463,501)</u>
Attributable to:			
Equity shareholders of the Company		(539,012)	(459,052)
Non-controlling interests		<u>(5,721)</u>	<u>(4,449)</u>
Loss for the period		<u>(544,733)</u>	<u>(463,501)</u>
Loss per share	7		
Basic and diluted (RMB)		<u>(0.56)</u>	<u>(0.48)</u>

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

for the six months ended 30 June 2023 (unaudited)

	Six months ended 30 June	
	2023	2022
	<i>RMB'000</i>	<i>RMB'000</i>
Loss for the period	<u>(544,733)</u>	<u>(463,501)</u>
Other comprehensive income for the period, net of nil tax		
Items that may be reclassified subsequently to profit or loss:		
Exchange differences on translation of financial statements of foreign subsidiaries, net of nil tax	<u>3,203</u>	<u>(4,944)</u>
Other comprehensive income for the period	<u>3,203</u>	<u>(4,944)</u>
Total comprehensive income for the period	<u>(541,530)</u>	<u>(468,445)</u>
Attributable to:		
Equity shareholders of the Company	<u>(535,809)</u>	<u>(463,996)</u>
Non-controlling interests	<u>(5,721)</u>	<u>(4,449)</u>
Total comprehensive income for the period	<u>(541,530)</u>	<u>(468,445)</u>

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

at 30 June 2023 (unaudited)

		At 30 June 2023	At 31 December 2022
	<i>Note</i>	<i>RMB'000</i>	<i>RMB'000</i>
Non-current assets			
Property, plant and equipment	8	409,004	491,576
Intangible assets		5,832	7,053
Goodwill		1,482	1,482
Equity-accounted investees		164,167	175,154
Financial assets measured at FVPL		107,686	109,602
Other non-current assets		<u>45,548</u>	<u>46,436</u>
		733,719	831,303
Current assets			
Inventories		271,354	250,478
Trade and other receivables	9	33,242	93,725
Pledged deposits		1,104	6,657
Cash and cash equivalents		<u>704,599</u>	<u>747,962</u>
		<u>1,010,299</u>	<u>1,098,822</u>
Current liabilities			
Interest-bearing borrowings	10	359,357	—
Trade and other payables	11	169,878	257,649
Contract liabilities		9,682	8,489
Lease liabilities		43,656	58,218
Provisions		<u>3,697</u>	<u>958</u>
		<u>586,270</u>	<u>325,314</u>
Net current assets		<u>424,029</u>	<u>773,508</u>
Total assets less current liabilities		1,157,748	1,604,811

CONSOLIDATED STATEMENT OF FINANCIAL POSITION (CONTINUED)*at 30 June 2023 (unaudited)*

		At 30 June 2023 <i>RMB'000</i>	At 31 December 2022 <i>RMB'000</i>
	<i>Note</i>		
Non-current liabilities			
Interest-bearing borrowings	<i>10</i>	99,800	33,100
Lease liabilities		90,757	128,632
Deferred income		25,797	33,018
Contract liabilities		3,121	1,786
Provisions		10	397
		<u>219,485</u>	<u>196,933</u>
NET ASSETS		<u>938,263</u>	<u>1,407,878</u>
CAPITAL AND RESERVES			
Share capital	<i>12</i>	958,594	958,594
Reserves		(5,502)	459,064
Total equity attributable to equity shareholders of the Company		953,092	1,417,658
Non-controlling interests		<u>(14,829)</u>	<u>(9,780)</u>
TOTAL EQUITY		<u>938,263</u>	<u>1,407,878</u>

Notes

(Expressed in Renminbi unless otherwise indicated)

1 BASIS OF PREPARATION

The interim financial report has been prepared in accordance with the applicable disclosure provisions of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited, including compliance with Hong Kong Accounting Standard (“**HKAS**”) 34, *Interim financial reporting*, issued by the Hong Kong Institute of Certified Public Accountants (“**HKICPA**”). It has been reviewed by the Audit Committee of the Company and was authorised for issue on 29 August 2023.

The interim financial report has been prepared in accordance with the same accounting policies adopted in the 2022 annual financial statements, except for the accounting policy changes that are expected to be reflected in the 2023 annual financial statements. Details of any changes in accounting policies are set out in note 2.

The preparation of an interim financial report in conformity with HKAS 34 requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets and liabilities, income and expenses on a year to date basis. Actual results may differ from these estimates.

The interim financial report contains condensed consolidated financial statements and selected explanatory notes. The notes include an explanation of events and transactions that are significant to an understanding of the changes in financial position and performance of the Group since the 2022 annual financial statements. The condensed consolidated interim financial statements and notes thereon do not include all of the information required for a full set of financial statements prepared in accordance with Hong Kong Financial Reporting Standards (“**HKFRSs**”).

This interim financial report is unaudited, but has been reviewed by KPMG in accordance with Hong Kong Standard on Review Engagements 2410.

The financial information relating to the financial year ended 31 December 2022 that is included in the interim financial report as comparative information does not constitute the Company’s annual consolidated financial statements for that financial year but is derived from those financial statements. The Company’s annual consolidated financial statements for the year ended 31 December 2022 are available from the Company’s registered office. The auditors have expressed an unqualified opinion on those financial statements in their report dated 29 March 2023.

2 CHANGES IN ACCOUNTING POLICIES

The HKICPA has issued the following new and amended HKFRSs and guidance that are first effective for the current accounting period of the Group. Of these, the following developments are relevant to the Group’s financial statements:

- HKFRS 17, *Insurance contracts*
- Amendments to HKAS 8, *Accounting policies, changes in accounting estimates and errors: Definition of accounting estimates*
- Amendments to HKAS 12, *Income taxes: Deferred tax related to assets and liabilities arising from a single transaction*
- Amendments to HKAS 12, *Income taxes: International tax reform — Pillar Two model rules*

None of these developments have had a material effect on how the Group's results and financial position for the current or prior periods have been or presented in this interim financial report. The Group has not applied any new standard or interpretation that is not yet effective for the current accounting period.

3 REVENUE AND SEGMENT REPORTING

The Group derives revenue principally from the sale of medical devices through appointed distributors.

For the purpose of resources allocation and performance assessment, the Group's management focuses on the operating results of the Group as a whole. As such, the Group's resources are integrated and no discrete operating segment information is available. Accordingly, no operating segment information is presented.

(a) Disaggregation of revenue

Disaggregation of revenue from contracts with customers by major products or service lines and the timing of revenue recognition is as follows:

	Six months ended 30 June	
	2023	2022
	<i>RMB'000</i>	<i>RMB'000</i>
Revenue from contracts with customers within the scope of HKFRS 15		
Sales of medical devices — point in time	<u>47,603</u>	<u>1,048</u>
Disaggregated by geographical location of customers		
— the People's Republic of China (the "PRC") (country of domicile)	<u>38,580</u>	1,048
— the United States	<u>9,023</u>	<u>—</u>
	<u>47,603</u>	<u>1,048</u>

4 OTHER NET (LOSS)/INCOME

	Six months ended 30 June	
	2023	2022
	<i>RMB'000</i>	<i>RMB'000</i>
Interest income on financial assets measured at amortised cost	4,207	16,238
Government grants	8,954	610
Net foreign exchange gain/(loss)	3,517	(500)
Net loss in relation to the termination of leases (<i>note 8</i>)	(40,454)	28
Others	<u>562</u>	<u>(86)</u>
	<u>(23,214)</u>	<u>16,290</u>

5 LOSS BEFORE TAXATION

Loss before taxation is arrived at after charging:

(a) Finance costs

	Six months ended 30 June	
	2023	2022
	RMB'000	RMB'000
Interest on interest-bearing borrowings and loans from related parties	3,708	123
Interest on lease liabilities	<u>4,788</u>	<u>5,281</u>
Total interest expense on financial liabilities not at fair value through profit or loss	8,496	5,404
Others	<u>127</u>	<u>154</u>
	<u><u>8,623</u></u>	<u><u>5,558</u></u>

(b) Other items

	Six months ended 30 June	
	2023	2022
	RMB'000	RMB'000
Amortisation of intangible assets	1,997	397
Depreciation of owned property, plant and equipment	33,050	18,048
Depreciation of right-of-use assets	26,334	27,955

6 INCOME TAX

Pursuant to the Corporate Income Tax (“CIT”) Law of the PRC, the Company and its PRC subsidiaries are liable to PRC CIT at a rate of 25%.

Taxation for overseas subsidiaries is similarly calculated using the estimated annual effective rates of taxation that are expected to be applicable in the relevant countries.

The Group has not recognised deferred tax assets in respect of cumulative unused tax losses as it is not probable that future taxable profits against which the losses can be utilised will be available in the relevant tax jurisdiction and entity.

7 LOSS PER SHARE

(a) Basic loss per share

The calculation of basic loss per share is based on the loss attributable to ordinary equity shareholders of the Company of RMB539,012,000 for the six months ended 30 June 2023 (six months ended 30 June 2022: RMB459,052,000) and the weighted average of 958,594,000 ordinary shares in issue during the six months ended 30 June 2023 (six months ended 30 June 2022: 958,594,000 ordinary shares).

(b) Diluted loss per share

Diluted loss per share is calculated by adjusting the weighted average number of ordinary shares outstanding to assume conversion of all dilutive potential ordinary shares. The calculation of diluted loss per share amount for the six months ended 30 June 2023 and 2022 has not included the potential effects of the warrants and share options issued by an equity-accounted investee of the Group, as they had anti-dilutive effects on the basic loss per share amount for the respective year. Accordingly, diluted loss per share for the six months ended 30 June 2023 and 2022 are the same as basic loss per share of the respective years.

8 PROPERTY, PLANT AND EQUIPMENT

During the six months ended 30 June 2023, the Group terminated certain leases for the use of manufacturing facilities and office building. The Group derecognised the right-of-use assets with a net book value of RMB32,243,000 and the corresponding lease liabilities of RMB35,378,000, and also wrote off the leasehold improvements with a net book value of RMB38,484,000 in relation to these terminated leases. Accordingly, losses arising from the termination of leases (including the termination fee to the lessors) totalling RMB40,454,000, were recognised in profit or loss for the six months ended 30 June 2023 (note 4).

During the six months ended 30 June 2023, the Group acquired items of property, plant and equipment with a cost of RMB48,155,000 (six months ended 30 June 2022: RMB67,653,000).

9 TRADE AND OTHER RECEIVABLES

	At 30 June 2023 RMB'000	At 31 December 2022 RMB'000
Trade debtors due from a related party, net of loss allowance	43	—
Value-added tax (“VAT”) recoverable	8,872	68,244
Prepayments	13,741	20,392
Other debtors	<u>10,579</u>	<u>5,089</u>
	<u><u>33,242</u></u>	<u><u>93,725</u></u>

As at 30 June 2023, the ageing of trade debtors are within 3 months, based on the invoice date. Trade debtors are due within 90 days from the date of billing. All of the trade and other receivables are expected to be recovered or recognised as expense within one year.

10 INTEREST-BEARING BORROWINGS

As of the end of the reporting period, all of the interest-bearing borrowings were unsecured bank loans and repayable as follows:

	At 30 June 2023 RMB'000	At 31 December 2022 RMB'000
Within 1 year	359,357	—
After 1 year but within 2 years	<u>99,800</u>	<u>33,100</u>
	<u><u>459,157</u></u>	<u><u>33,100</u></u>

One of the Group's banking facilities is subject to the fulfilment of certain covenants. If the Group were to breach the covenants, the drawn down facilities would become payable on demand. As at 30 June 2023, none of the covenants relating to drawn down facilities had been breached.

11 TRADE AND OTHER PAYABLES

As of the end of the reporting period, the ageing analysis of trade payables (which are included in trade and other payables), based on the invoice date, is as follows:

	At 30 June 2023 RMB'000	At 31 December 2022 RMB'000
Within 1 month	58,793	113,649
Over 1 month but within 3 months	3,730	2,834
Over 3 months but within 6 months	1,324	2,751
Over 6 months but within 1 year	2,001	3,531
Over 1 year	<u>1,926</u>	<u>1,779</u>
Trade payables	67,774	124,544
Accrued payroll	49,804	64,094
Amounts due to related parties	14,482	13,250
Other creditors and accrued charges	<u>37,818</u>	<u>55,761</u>
	<u><u>169,878</u></u>	<u><u>257,649</u></u>

12 CAPITAL, RESERVES AND DIVIDENDS

Dividends

The directors of the Company did not propose the payment of any dividend during the six months ended 30 June 2023 (six months ended 30 June 2022: nil).

MANAGEMENT DISCUSSION AND ANALYSIS

Industry Overview

As one of the most important innovation breakthroughs in the field of high-end medical devices in recent years, the surgical robot has high clinical value, which can effectively improve the accuracy and stability of surgeries, shorten the postoperative recovery cycle of patients and reduce the occurrence of complications; also effectively shorten the learning curve of surgeons and reduce the radiation exposure of operators. The surgical robot market presents a rapid growth trend with the continuous development of the global surgical robot industry. As compared with the overseas surgical robot market, China's surgical robot industry is still in an early stage of development, the penetration rate of robot-assisted surgery is relatively low. Under the guidance of China's macro policy guidelines, it is expected the scientific, refined and efficient level of medical quality management will be enhanced further, resulting in the expansion of quality healthcare resources. At the same time, China's vast population base, increasing public health awareness, the advantages of robot-assisted surgeries over traditional surgeries, and the fact that more and more physicians are becoming familiar with and proficient in operating robot-assisted surgeries will drive the huge growth potential of China's surgical robot market. As China's surgical robot industry is still at the early stage of development, robot-assisted surgeries will need longer time for market cultivation and promotion to popularize its application in China, while being affected by various policies in the high-end medical device industry, as well as the increasing competition in the industry and other factors at the same time.

2023 is an important year of succession of the "National Health Plan of the 14th Five-Year Plan" (《「十四五」國民健康規劃》). New requirement and new directions are specified for medical and healthcare development in China for the "14th Five-Year Plan" period, with encouraging cutting-edge technologies and breakthroughs in the medical field being one of the themes of China's economic development in the "14th Five-Year Plan", and even longer period. Following implementation of the "14th Five-Year Plan", policies to support rapid development of medical institutions were introduced successively, driving the development of high-end medical device industry. Meanwhile, as China encourages layouts for the promotion of expansion and flow of quality medical resources to lower-tier cities and balanced distribution to various regions, market demands in lower-tier cities for high-end medical device will bring greater development opportunities.

According to the Implementation Plan for "Robot +" Applications (《「機器人+」應用行動實施方案》) jointly issued on 19 January 2023 by seventeen departments with Ministry of Industry and Information Technology as the lead and co-operative sectors as the National Healthcare Commission and the Ministry of Finance, the manufacture and healthcare industries were enlisted in the 10 key application fields. Among others, in terms of healthcare, it is clearly indicated in such plan that we should promote the accelerated application of new technologies, such as artificial intelligence-assisted diagnostic systems, robot-assisted 5G remote surgery, brain-machine interface-assisted rehabilitation systems and other new products, and promote the application of robots in hospital rehabilitation, remote medical care, health and epidemic prevention scenarios, encourage hospitals with the conditions and needs to use robots to perform precise and minimally invasive surgery, build standardized operating theatres for robotic applications, and study standards and regulations for the clinical application of surgical robots.

In March 2023, the National Healthcare Commission issued the Large Medical Equipment Configuration License Management Catalog (2023), which designated the scope of large-scale medical equipment configured and managed by national healthcare commission and provincial healthcare commission, respectively. In June 2023, the National Healthcare Commission issued “Notice on Allocation and Planning of Large-scale Medical Device of the 14th Five-Year Plan (《「十四五」大型醫用設備配置規劃的通知》)”, clearly specifying the planned number of large-scale medical device to be allocated, the access standards and the allocation plan for each province (autonomous region and municipality) during the “14th Five-Year Plan” period. As compared with the “13th Five-Year Plan”, the number of planned allocation certificate for laparoscopic surgical system in the “14th Five-Year Plan” increased significantly. At the same time, the “14th Five-Year Plan” also specified focus on promoting fairness and accessibility of medical and healthcare services, reducing difference in allocation and service capability between regions, promoting expansion and flow of quality medical resources to lower-tier cities and balanced regional layout. In the current stage, procurement of high-end medical device in China is mainly attributable to large hospitals, as the quality development strategy for the industry continues to implement, combining with the introduction and implementation of the government’s subsequent supporting policies, it is expected that additional procurement of high-end medical device as well as demands for relevant update and iteration and market potential will gradually be released, domestic high-end large-scale medical device, including the laparoscopic surgical robots, is expected to leverage on its cost-effective advantage, as well as with advantage in leading application of cross-border integration and innovation including integration of new technologies such as 5G communications and artificial intelligence, promote the healthy and orderly development of China’s surgical robot industry, accelerate the expansion and balanced regional layout of quality medical resources, and provide more high-end treatments of more comprehensive and higher quality for doctors and patients in China.

Led and driven by innovative support policies driving and promoting the surgical robot industry, in recent years, China’s surgical robot has achieved breakthroughs and development in various fields of core technology, especially in integration with new technology such as 5G communication and artificial intelligence, which will further promote the development of surgical robot industry, enhance the level of intelligence, realize flow of quality medical resources to lower-tier cities and improve the frequency of doctor-patient interaction. In the future, China’s surgical robot will develop rapidly to become more minimally-invasive, accurate and intelligent, enhancing patients’ satisfaction, improving physicians’ operating experience and reducing overall surgery costs, in deep response to the substantial demands of doctors and patients in China’s healthcare market, satisfying demands of general public of different sections and diversified medical and healthcare demands. With outstanding quality, extensively recognized clinical value and competitive price advantage, the rate of utilization and penetration of domestic surgical robots will be greatly enhanced, which will expedite the realization of import substitution and in turns promote the medical industry to achieve quality development in line with social economic development and medical service capability.

BUSINESS PROGRESS

In the first half of 2023, the Group committed to its business-focused strategy, “sustainable business growth as the top priority, while independent R&D and innovation as the core”, the Group strive to improve overall efficiency for operation, achieving solid operational performance in various aspects, including R&D innovation, clinical registration, physician training, and brand establishment.

During the Reporting Period, the Group recorded a revenue of RMB47.6 million, representing a significant increase as compared with that of RMB1.0 million for the corresponding period in the previous year, mainly attributable to comprehensive promotion of commercialization activities of the Group’s various marketed flagship products. Toumai, our core product, has utilized its leading advantage in domestic surgical robots and continued to maintain good commercialization momentum. During the Reporting Period, it achieved 4 commercial installations and won bids in several top-tier hospitals in China; SkyWalker is the Group’s first surgical robot product to launch overseas, in the first half of 2023, with the favourable synergies and cooperation with the MicroPort Group, we continued to proceed SkyWalker’s commercialization activities in the overseas, and SkyWalker contributed to the Group’s revenue from overseas market sales for the first time; DFVision, our flagship product, continued to record stable revenue and achieved significant year-on-year growth in terms of both revenue and sales volume.

The Group continued to enhance innovation in its research and development by focusing on core research and development projects to enhance its research and development efficiency. During the Reporting Period, the research and development and registration of the Group’s major products achieved satisfying progress. During the Reporting Period, the Group’s flagship product SkyWalker further expanded its international deployment rapidly. To date since last year, SkyWalker has successively obtained the approval for launch from NMPA, FDA 510(k) clearance and EU CE Mark, Brazil ANVISA certification and Australia TGA certification, becoming the first and only domestic robot approved for launch in five regions, namely China, the United States, EU, Brazil and Australia as at the date of this announcement, further improving our global strategic layout. The new generation of DFVision can be comprehensively used in hepatobiliary surgery, gastrointestinal surgery, obstetrics, urology surgery and thoracic surgery. During the Reporting Period, the product was granted with the marketing registration certificate issued by the Shanghai Medical Products Administration and the CE Mark from EU, successively, laying a solid foundation for its subsequent scaled clinical application and overseas market expansion in the future. Mona Lisa, an international cooperative product, obtained the approval for launch by the NMPA in May 2023, becoming the first prostate puncture robot obtained the approval in the field of urology in China. The product is expected to fill the gap in the domestic market by providing more medical options and better conditions for patients requiring prostate biopsy puncture. During the Reporting Period, the Group has continued to refine its research and development of underlying core technologies and pipeline products, and strengthen its exploration of breakthroughs in cutting-edge technologies. To date, the Group’s surgical robot products have completed over 50 5G remote surgeries, creating numerous records of first remote surgery in China and around the world.

As for commercialization activities, as at the date of this announcement, the Group had deployed accumulatively over 40 clinical application and training centers nationwide, including four self-built training centers in Beijing, Shanghai, Guangzhou, and mobile surgical vehicles. The Group also plotted channel distribution in over ten provinces and cities, providing one-stop and comprehensive supporting services covering various contents such as professional education, technical services, digital learning platform, etc., and extensively empowering primary healthcare institutions across China to accelerate the progress of the popularization of intelligent robot-assisted surgical technology. As at the date of this announcement, Toumai has achieved a breakthrough to have accumulatively completed over 1,200 human clinical surgeries, while the cumulative number of total knee replacement surgeries performed with SkyWalker has exceeded 600. In July 2023, as a representative for domestic surgical robots, the Group showcased Toumai and SkyWalker at the Society of Robotic Surgery (SRS) 2023 Annual Meeting, a globally renowned academic conference, attracting numerous domestic and overseas peers for observation and test drives, and receiving extensive recognition and appreciation from domestic and overseas experts.

Our Research and Development and Product Pipeline

With years of R&D innovation and industrial accumulation, the Group is the only surgical robot company in the world with a product portfolio covering the five major and fast growing surgical specialties of laparoscopic, orthopedic, panvascular, natural orifice and percutaneous surgical procedures, under which, over 10 products are at the fast promotion stage of industrialization projects.

During the Reporting Period, with our clear strategical focus and efficient operational management, the Group has put more research and development resources on the development, optimization and upgrading of its products (including Toumai, our Core Product, and SkyWalker, our flagship product) in the early stage of commercialization, to provide doctors and patients with more comprehensive, better and more innovative robotic surgical solutions as fast as possible. Leveraging on the Group's strong innovation capabilities and strict implementation of the above strategies, the Group's research and development as well as product pipelines have achieved satisfying progress during the Reporting Period.

The following table summarized our product portfolio as at the date of this announcement.

	Surgical Specialty	Product	Indicated Application	Medical device product Classification	Development Stage				
					Design Development	Design Validation	Clinical Trial/ Clinical Evaluation	Registration Application	
Self Development	Laparoscopic Surgery	Toumai Laparoscopic Surgical Robot	Urologic surgery ▲	III	[Progress bar]				
			Gynecologic surgery		[Progress bar]				
			Thoracic surgery		[Progress bar]				
			General surgery		[Progress bar]				
		Toumai Single-arm Laparoscopic Surgical Robot	Urologic surgery, gynecologic surgery and general surgery	III	[Progress bar]				
		DFVision 3D Electronic Laparoscope	Laparoscopic surgeries for abdominal, thoracic and pelvic organs ▲●	III	[Progress bar]				
	II(a)			[Progress bar] obtained CE Mark					
		Orthopedic Surgery	SkyWalker Orthopedic Surgical Robot	Total knee arthroplasty ▲●	III	[Progress bar]			
				II(b)	[Progress bar] obtained approval from FDA, CE Mark, ANVISA and TGA				
				III	[Progress bar]				
	III			[Progress bar]					
		Spine Surgical Robot	Spine surgery	III	[Progress bar]				
	Natural Orifice Surgery	Trans-bronchial Surgical Robot	Trans-bronchial diagnosis & treatment	III	[Progress bar]				
	Panvascular Surgery	TAVR Surgical Robot	Heart valve replacement surgery	III	[Progress bar]				
		R-ONE Vascular Interventional Surgical Robot	Coronary angioplasty	III	[Progress bar]				
International Collaboration	Percutaneous Surgery	Thoracic and Abdominal Puncture Surgical Robot	Percutaneous lung biopsy	III	[Progress bar]				
			Percutaneous liver biopsy	III	[Progress bar]				
		iSR'obot™ Mona Lisa Robotic Transperineal Prostate Biopsy System	Transperineal prostate biopsy ▲	III	[Progress bar]				

Products entered into Green Path ▲ Products approved by the NMPA ● Products with approval for launch overseas

Toumai Laparoscopic Surgical Robot — Our Core Product

Toumai, the Core Product of the Company, is a laparoscopic surgical robot designed and developed by the Group for a wide range of surgical procedures, which enables complex surgeries to adopt a minimally invasive approach. The agility of robotic arms allows greater precision in operations, enhances the safety of surgery and reduces surgeon fatigue. Seated comfortably at the console, a surgeon views an immersive 3DHD image of the surgical field and manipulates the surgical instruments inside the patient’s body by controlling the robotic arms. Toumai provides surgeons with a range of motions analogous to those of human wrists, while filtering out the tremors inherent in human hands. With 5G remote technology, Toumai can minimize the latency of imaging and manipulation by taking advantage of three-dimensional imagery synchronous transmission and reproduction technology, it also allows real-time network communication quality monitoring and the issuing of early warnings, in order to ensure a safe and smooth surgery.

Toumai has obtained the registration certificate for launch to be used in urological surgery issued by the NMPA in January 2022, becoming the first four-arm laparoscopic surgical robot developed by a Chinese enterprise and approved for launch. With its excellent technological foundation, solid clinical performance and comprehensive physician training and service system, as the first domestic laparoscopic surgical robot to achieve commercialised installation, Toumai made steady progress during the Reporting Period for its market promotion and commercialisation activities. Despite the impact of the timing of issue of the “14th Five-Year Plan” in first half of the year of 2023, Toumai has completed installation and acceptance in four hospitals in China and won bids in procurement projects for surgical robot system in multiple top tier hospitals. With a clear commercialization strategy, Toumai continued to proceed physician training and clinical validation during the Reporting Period. As at the date of this announcement, the Group has accumulatively established more than 30 clinical application and training centers for Toumai across the country. Benefiting from the strengthened clinical education and training and active marketing and promotion activities, the awareness and recognition of Toumai among hospitals and surgeons has been rapidly enhanced.

The Group actively promotes the clinical validation and academic exchange activities of Toumai, our Core Product, to continuously enhance and expand its brand influence. As of the date of this announcement, Toumai has achieved breakthroughs and accumulatively completed more than 1,200 robotic assisted clinical validation surgeries in departments such as urology surgery, hepatobiliary surgery, gastrointestinal surgery, thoracic surgery, obstetrics and thyroid and galactophore gland surgery in over 40 hospitals in more than 20 provinces nationwide, comprehensively covering difficult and complicated operations in the fields of pelvic cavity, abdominal cavity and thoracic cavity. Among which, more than 500 surgeries were completed during January to June in 2023. The aforesaid surgeries include numerous difficult surgeries assisted by domestic surgical robot for the first time, including the first domestic surgical robot radical prostatectomy, the first domestic surgical robot for single-port surgery, the first domestic surgical robot partial nephrectomy, the first domestic surgical robot radical resection for lung cancer, the first domestic surgical robot radical gastrectomy for gastric cancer, the first domestic surgical robot radical resection for renal cancer, the first domestic surgical robot hepatectomy, the first domestic surgical robot hysterectomy, the first domestic surgical robot radical resection for rectal cancer. These difficult operations continuously verified the technical strength of Toumai to complete complicated operations in narrow anatomic space, as well as its ability to fully meet the requirements of diverse surgical procedures in clinical applications. Through the simulation of Toumai in real-life scenarios and the regular application of difficult surgery, Toumai’s excellent clinical application, ease of operation, stability and innovation have been fully verified; at the same time, by referencing to clinical feedback and continuous refining on technological details, Toumai’s performance has been further optimized and improved, and accumulated valuable experience for its subsequent scaled installation and clinical application.

Meanwhile, the Group is also actively promoting overseas development of its Core Product. As of the date of this announcement, Toumai has submitted the application for CE Mark from EU, expecting to provide doctors and patients around the world with more cost-effective and high-quality surgical robot-assisted surgery solutions.

The Group persisted on an innovation-driven approach, leading the development of cutting-edge technology in the field of surgical robots. The application of 5G technology to realize the standardization of remote robotic surgery is conducive to the realization of flow of quality medical resources to lower-tier cities, which in turns benefiting patients in extensive remote areas, it is also one of the key directions for the Company's continuing research and active progress. As of the date of this announcement, with the assistance of Toumai, experts in domestic minimal invasive surgery have conducted dozens of 5G remote surgeries, creating a number of first remote surgeries in China and even the world, including the longest-distance 5G ultra-remote robotic surgery (urology surgery) in the world, the first 5G ultra-remote robot hepatectomy, the first 5G ultra-remote robot total hysterectomy, world first 5G remote robot-assisted radical prostatectomy for prostate cancer, fully demonstrating the prospects in performance superiority and surgical methods of Toumai. With the continuous maturation and iterative upgrading of the technical integration of 5G technology and domestic surgical robots, as well as the large-scale application in the clinical field, the 5G remote robot-assisted surgery is expected to shortly provide a reliable boost to the construction of regional medical centres, the flow of quality medical resources to patients in remote areas, and the alleviation and resolution of the imbalance between the supply and demand of medical services. As at the date of this announcement, Toumai remote laparoscopic surgery system has commenced clinical registration and will commence clinical trial enrollment in the near future.

Warning under Rule 18A.08(3) of the Listing Rules: We cannot assure that our Core Product may ultimately be successfully commercialized. Shareholders and potential investors of the Company are advised to exercise caution when dealing in the shares of the Company.

Toumai Single-arm Laparoscopic Surgical Robot (“Toumai Single-arm”)

Toumai Single-arm Laparoscopic Surgical Robot independently developed by the Group featured by a unique single-arm structure with self-developed intellectual property rights, flexible movement, as well as a convenient set-up. Its device in snake design can achieve seven degrees of freedom within a narrow space, which is more sophisticated than multi-arm robots. Toumai Single-arm performs laparoscopic surgery on a single-port basis, which has clinical values such as smaller wound, less pain and improved post-operative aesthetics compared to traditional multi-port surgeries.

During the Reporting Period, Toumai Single-arm Laparoscopic Surgical Robot commenced the enrollment for registrational clinical trial and is expanding its application in surgeries under more departments. As Toumai Single-arm started application of single-port clinical procedures in various departments including gynecologic, urologic and general surgeries in different hospitals in locations such as Beijing, Shanghai and Nanchang, expecting to provide further proof for the technological stability and safety of Toumai Single-arm, and to benefit more physicians and patients with its excellent performance and reliable services.

DFVision 3D Electronic Laparoscope

DFVision is a 3D electronic laparoscope independently developed by the Group, which can be used for examination and imaging in laparoscope surgeries, to observe, diagnose, take photos on or treat in organs such as abdominal cavity and thoracic cavity. Through the application of high-resolution imaging objective lens and electronic lens structure, it presents full HD two-way images, provides the operator with the 3D sense of surgical field of vision and natural depth of field, to satisfy the anatomical demand of high precision and high stereoscopic level in clinical application, which is of great significance to the precise freeing, suturing and knotting during surgery. It can reduce the operation time, reduce surgical errors, improve the quality of surgery, and increase the efficiency of surgery. It breaks through the limitations of the traditional two-dimensional laparoscopic surgery, making it applicable to surgeries in different departments including urological surgery, general surgery, thoracic surgery and gynecological surgery.

As the first domestic 3D electronic laparoscope that entered the Green Path in China, DFVison obtained the NMPA approval in June 2021 and realized sales in second half of 2021. Based on a sound commercialization foundation, DFVision achieved significant growth in sales volume and sales value during the Reporting Period as compared to the same period of last year. Meanwhile, during the Reporting Period, the new generation of DFVision was granted with the marketing registration certificate issued by the Shanghai Medical Products Administration and the CE Mark from EU through approval by the British Standards Institution(BSI), which further complemented the Group's laparoscope integrated solution, broadened the market for DFVision in the field of domestic high-end medical equipment, and laid a solid foundation for the Group to overseas commercialization in the future.

SkyWalker Orthopedic Surgical Robot

SkyWalker is an orthopedic surgical robot independently developed by the Group. It enjoys technical advantages such as precise operation, efficient synergy, safety protection and strong compatibility. Before surgery, its planning system can assist surgeons to formulate personalized prosthesis implantation plans based on patients' preoperative CT scan data and prosthesis model data. During surgery, the precise positioning from surgical planning and the utilization of registration technology in combination with the self-developed highly dexterous and lightweight robotic arm(s) allow for an osteotomy to be quickly completed, thus helping to improve the accuracy and efficiency of the operation. SkyWalker avoids the need for positioning the medullary cavity in traditional surgery. As there is no intramedullary rod implantation during the surgery, SkyWalker reduces surgical damage and blood loss, improves the postoperative lower limb alignment, reduces surgical complications, and helps patients achieve faster recovery after surgery.

SkyWalker (being used for total knee replacement surgery) obtained the registration certificate for launch issued by NMPA in April 2022. Meanwhile, with our effort in actively exploring overseas market, SkyWalker has managed to obtain a 510(k) clearance from the FDA, the CE Mark from EU, the certification from ANVISA and registration with TGA successively, making it the first and only domestic surgical robot that has obtained the marketing approval in China, United States, EU, Brazil and Australia, being major markets of surgical robots. Benefited from the Group's extensive and targeted marketing promotion and physicians' training for SkyWalker, as well as the effective synergy and full utilization of good brand reputation and solid market foundation of MicroPort Group in overseas orthopaedic market, SkyWalker rapidly converted its initial achievement upon its commercialization. During the Reporting Period, SkyWalker achieved first commercialized installation in the domestic market and contributed overseas revenue to the Group for the first time.

In terms of clinical application and promotion, with its advantages of customized planning and precise surgical operation, SkyWalker can minimize wounds of patients and avoid over-reliance on physicians' skills and experience in traditional knee replacement surgery. It can facilitate uniformity of surgical results and help patients regain their health. As at the date of this announcement, the Group has deployed nearly 20 SkyWalker clinical application and training centres nationwide, more than 600 robot-assisted clinical validation surgeries have been accomplished by SkyWalker in the orthopedics, joint surgery and sports medicine departments of over 40 hospitals in 16 provinces and municipalities in China. These surgeries include a number of innovative and challenging robot-assisted procedures, such as the joint replacement surgery of internal fixation by intramedullary nail for fractures of femoral shaft (股骨幹骨折髓內釘內固定術後關節置換手術), the joint replacement surgery for severe rheumatoid arthritis (重度類風濕關節炎關節置換手術), showing the highly stable assistance performance and high clinical application value of SkyWalker. Meanwhile, SkyWalker has successfully conducted various cases of 5G remote joint replacement surgeries, including the first 5G remote total knee replacement surgery with assistance by domestic robot in Tibet, which holds practical and far-reaching significance in expansion of its application to hospitals in third and fourth tier cities and remote areas, as well as in establishment of medical communities in the future.

In terms of international development, as the first flagship product of the Group marketed overseas, SkyWalker was applied in total knee replacement surgeries in various hospitals in the United States, including the Lighthouse Surgical Suites, LLC in Hollis, New Hampshire, USA, constantly improving reputation and recognition of MedBot around the globe, so as to diversify international market channels, and continue to provide robotic surgery solutions of higher quality, reliability and comprehensiveness for physicians and patients around the world. With smooth interactive experience, high resolution and easy-to-use interface, SkyWalker's software system won the "iF DESIGN AWARD 2023" in the iF Design Award 2023 (German), outperforming from nearly 11,000 entries from 56 countries/regions.

In addition to total knee replacement surgery, the Group is also exploring the breakthrough application of SkyWalker for other surgeries. As of the date of this announcement, SkyWalker has completed the first-in-man (FIM) surgery of total hip arthroplasty (首例全髖關節置換人體手術) and the first-in-man surgery for unicompartmental knee arthroplasty (首例膝關節單髁置換人體手術), which marked SkyWalker's official entry into the practical clinical trial and evaluation stage for total hip arthroplasty and unicompartmental arthroplasty (單髁置換術).

Trans-bronchial Surgical Robot

The Robot-assisted Bronchoscopy Navigation System (“**Trans-bronchial Surgical Robot**”) independently developed by the Group is a non-invasive natural orifice transluminal robotic platform. The system features an ultra-smooth, ultra-thin snake-shaped robotic catheter, which can access hard-to-reach and narrow lesions through human's natural orifice without making any wound on the body. It has significant meaning in early diagnosis and treatment of small pulmonary nodule and other cancer.

The clinical trial and validation of the Trans-bronchial Surgical Robot are progressing smoothly, it has completed a robot-assisted transbronchial lung nodules biopsy, which is the first-in-man (FIM) clinical trial completed by a Chinese-developed trans-bronchial surgical robot.

R-ONE Vascular Interventional Surgical Robot

The R-ONE introduced by Shanghai Cathbot, a joint venture established in China by the Company and Robocath in France, is an innovative robotics product in the field of pan-vascular. R-ONE is a vascular intervention navigation control system based on master-slave control technology, which is designed to assist cardiovascular interventional physicians in conducting percutaneous coronary intervention (“**PCI**”) surgeries to locate lesions precisely, optimize the delivery of balloons and stent catheters, thereby standardizing the surgical process, improving the surgical accuracy, and reducing surgical complications. Furthermore, surgeons can sit at the anti-radiation console to complete remote control, effectively reducing the exposure time under the radiation while accurately operating the operation.

R-ONE has completed the registrational clinical trial in China, becoming the first cardiovascular interventional surgical robot system in China that has completed multicenter registrational clinical trials. With the stability and reliability of R-ONE demonstrated in the clinical trial, it can fill the gap in the domestic fields of PCI surgical robots, and has laid an important foundation for more precise and intelligent and less invasive vascular interventional surgery. Through integrated application of 5G technology, in July 2023, R-ONE successfully completed China's first robot-assisted 5G ultra-remote PCI surgery with remote control crossing a distance of 2,800 kilometers, marking an important milestone for the development of vascular intervention. During the Reporting Period, Shanghai Cathbot has submitted application for registration of R-ONE to NMPA and expects to obtain the approval in 2023.

iSR’obot Mona Lisa Robotic Transperineal Prostate Biopsy System

Mona Lisa, a product of Shanghai Intbot, a joint venture company jointly established by the Company and Biobot in China is an innovative robotics product in the field of percutaneous puncture of the Group, aiming at assisting physicians to complete prostate puncture biopsy surgeries more precisely, accurately and quickly. Mona Lisa enables physicians to conduct biopsy sampling more precisely and easily: before the procedure, physicians can conduct surgical planning and interactive adjustment through intelligent software; in the course of procedure, a powerful elastic MRI-ultrasound fusion algorithm can guide physicians immediately, allowing target sites to be easily and accurately sampled regardless of whether they are located in the prostate sharp, base bottom or peripheral belt. The innovative two-point needling approach can minimize the interference of the bones, reduce the incisions of patients, and achieve full prostate coverage; after the procedure, Mona Lisa can generate a complete report containing 3D images and clinical data.

During the Reporting Period, Mona Lisa successfully obtained the approval for launch by the NMPA. As the first prostate puncture robot obtained the approval in the field of urology in China, Mona Lisa can improve the positive detection rate of patients, reduce manual error and omission diagnostic rate, assist clinical physicians to complete biopsy puncture surgeries more accurately and efficiently, and at the same time reduce the pain of patients. The product provides more medical options and better conditions for patients requiring prostate biopsy puncture, which will fill the gap in the domestic market for robot-assisted puncture products. It will also form an integrated solution for diagnosis and treatment of prostate cancer with the Company’s Core Product, Toumai, and facilitate the improvement of diagnosis and treatment models for prostate diseases.

Cutting-edge technology

With the continuous progress of technologies, such as big data, AI, human-computer interaction technology, 5G communication, etc., surgical robots will lead the intelligent transformation in the medical field continuously, making surgery more accurate, smarter, safer, more affordable and more minimally-invasive. During the Reporting Period, while deeply engaged in the R&D of five core underlying technologies of surgical robots, the Group persisted on an innovation-driven approach, committed to meeting the demand for robotic surgery.

The technology of 5G remote surgeries is one of our key R&D directions that we continuously tackle and focus on, which reflects our implementation of and response to the guidance on the construction of regional medical communities under the “Healthy China” strategy. Free from the constraint of physical distance, it is a powerful tool for resolving the grassroots’ difficulties in seeking healthcare services, and represents our pragmatic approach to our belief of “Make surgery easier, safer and less invasive”. To date, the Group has completed over 50 5G remote surgeries in dozens of hospitals including Sir Run Run Shaw Hospital of Zhejiang University School of Medicine (浙江大學醫學院附屬邵逸夫醫院), Jiangsu Province People’s Hospital (江蘇省人民醫院), The First Affiliated Hospital of Chongqing Medical University (重慶醫科大學附屬第一醫院), targeting to serve Xinjiang, Tibet, Gansu and Inner Mongolia, and has created numerous records of first remote surgery in China and around the world.

Meanwhile, the Group continued to put efforts in promoting the application of remote technology in robot-assisted surgeries, with an aim to help establishment of regional medical partnership. The Group has jointly established the world's first 5G remote precise minimally invasive surgery training center with 301 Hospital, which provides assistance for the standardized training and promotion of domestic robotic surgery technology, facilitated the flow of advanced diagnosis and treatment technology to lower-tier, and promoted the improvement of primary medical and health service capacity in China. During the Reporting Period, the Group continued to promote the demonstration of “Light on the Silk Road” (絲路之光) — 5G robot-assisted remote surgery. As the first mobile surgery and training platform equipped with 5G remote robot in the industry, the mobile training platform of Toumai integrating “5G remote technology” and “precise minimally-invasive robot surgery technology” will operate across Northwestern China, promoting the gradual perfection of Toumai in the field of 5G remote surgery technology.

Research and Development

We have fully mastered the five core underlying technologies of surgical robots (i.e. robot ontology, control algorithms, electrical engineering, image-based navigation and precision imaging). Through years of solid accumulation in the five technical fields, the Group has been able to establish an innovative surgical robot platform and maintain the ability to develop new products continuously.

At present, the Group has two China R&D centers respectively in Shanghai and Shenzhen. Meanwhile, as part of the globalization strategy, the Group also has established overseas R&D centers in Singapore, the United States and other countries, aiming at breaking through the core technology of minimally-invasive surgical robots, providing the whole chain of scientific and technological innovation services of surgical robots, and preparing for the Group's R&D, upgrade and iteration of the Group's products in the future. The Group also made full advantages of medical and engineering integration, and has reacted promptly to clinical needs. We have vigorously carried out multi-center clinical trials led by clinicians, promoted industrial upgrading and product iteration, and realized the transformation of underlying research results. Our Shanghai Engineering Research Center of Minimally Invasive Surgical Robots (上海微創手術機器人工程技術研究中心) is the first provincial surgical robot engineering centre. It created an open service platform covering research and development, verification, clinical and industrialization support, aiming at promoting cooperation throughout the industry chain, including scientific research institution under medical device testing organizations. The platform cooperated with the institutions to establish standards for surgical robots and construct experimental testing capabilities for surgical robots.

Capability of Commercialization

The Group has established a well-trained and fully responsible consultant marketing team to provide hospitals with comprehensive services, such as training, surgery support, maintenance, as well as equipment adjustment and testing and so on. During the Reporting Period, the Group has promoted establishment of a targeted training system, helping the Group to continuously improve its product marketing system, further optimize service capabilities and continuously enhance brand influence. To date, the Group has established accumulated over 30 clinical application and training centers for Toumai and nearly 20 for SkyWalker, across the country. The Group also commenced various surgical robot clinical application and training events to enhance communication with physicians and education to patients, so as to build its brand reputation, laying a solid foundation for further enhancing the recognition of the Group's innovative products, as well as their subsequent large-scale sales. We have collected ample feedback from doctors through trainings and communication activities, thereby providing critical clinical support for the continuous upgrading of the Group's products and improving product's functions. At the same time, we continued to conduct large-scale clinical validation surgeries based on real clinical application scenarios and needs. The Group has achieved conductive transformation reflected in sales results with the efficient implementation of various and comprehensive marketing, physician training and clinical validation activities.

MedBot Mobile Demonstration & Training Center (微創機器人移動培訓展示平台) developed by the Group is equipped with Toumai and SkyWalker surgical robot systems. During the Reporting Period, through continuous promotion and application of those systems, we promoted the surgical robot technology of "Intelligent Manufacturing in China" across the country, providing a platform for more healthcare professionals to access and experience surgical robots without having to travel long distances, which would help alleviate current shortage of domestic surgical robot training resources, and accelerate the popularization of affordable robotic surgeries.

Manufacturing and Supply Chain

The Group's internal manufacturing and supply chain team is responsible for managing our manufacturing, supply and transportation. We currently have two production bases in China, located in Shanghai and Suzhou respectively. We established a multi-level supply chain system covering precision parts, consumables, core components and system integration and have achieved production capacity at scale for a number of marketed surgical robots and its complementary consumables. The Group engaged in system integration and hierarchical assembly and testing of core components through its subsidiary Shanghai MicroPort Shuzhi Technology Co., Ltd. (上海微創樞知科技有限公司), and expedited the research and development of core parts prototype and the products iteration through its subsidiary Jiaying Weizhuo Technology Co., Ltd. (嘉興微琢科技有限公司). Through strategic and refined procurement management as well as the effective measures, the Group continuously optimizes sampling and product iteration efficiency and improves product delivery rate.

Human Resources and Personnel Training

After years of accumulation, we have a surgical robot industrialization team that involves in the full cycle of surgical robot development covering R&D, clinical trial and registration, supply chain management and commercialization and marketing. As at 30 June 2023, the Group had around 900 employees, mainly based in China, Singapore, United States etc.. The Group's internal talent growth platform stayed closely aligned with our business to address the learning issues and difficulties, and has developed a diversified course system of basic knowledge, management knowledge, professional knowledge and project experience sharing. The system placed importance on case studies and practical courses, with an output of 48 professional courses in total during the Reporting Period.

Intellectual Property

As at 30 June 2023, we have filed 1,152 patents application worldwide, of which 324 patents have been granted patents in China or overseas, including 230 Chinese patents and 94 overseas patents. The remaining 828 patents are still under application. During the Reporting Period, the Group was granted 52 new patents, including 11 overseas patents for inventions, completing the overseas deployment of core technologies. According to the branding, marketing and compliance protection strategy, we have completed the layout of domestic and foreign trademarks, and applied for 23 trademarks in the Reporting Period, having established the trademark system of launched products and corporate brands.

Outlook

With the growing recognition of the advantages of surgical robots by the public, the continuous improvement of global medical infrastructure, the active guidance and support of the Chinese government for innovative medical devices, and the increasing investment in the field of surgical robots on the capital market, we expect the market of surgical robots to grow sustainably. Facing the fast-growing demand for surgical robots, we will adhere to the management credo of “Eyes For Greatness, Hands On Details” and firmly implement a positive and efficient business strategy, including but not limited to the following:

1. *Continue to expand product portfolio to build a multi-specialty surgical platform*

We will continue fulfilling our commitment to meeting the frontier demand for minimally-invasive surgery. By integrating the cutting-edge research and robot ontology, control algorithms, electrical engineering, image-based navigation and precision imaging, we provide comprehensive intelligent surgical solutions to prolong and reshape the lives of patients. Based on the five major and fast-growing surgical specialties, we will optimize and upgrade existing products continuously through independent development and external cooperation, actively promoting the development of innovative products, expanding the application of surgical robots in more clinical fields, and expanding the product pipeline to new surgical specialties.

2. Accelerate the commercialization, and improve the market penetration

With the continuous surgical robot products launch, we will establish more training and education centers for surgical robots, strengthen communication with doctors and patients, improve clinical application experience, standardize robot operation processes and standards, accelerate the popularization of surgical robots, empower the total solution of high-quality medical robots assisted surgery to lower-tier medical institutions all over China, and realize our belief of “Make surgery easier, safer and less invasive”.

3. Continue to Promote globalization strategy

We will build a globalized medical robots total solution innovation platform and integrate potential resources to improve the commercialization and supply chain capacity of the Group overseas, paving the way for the launch of our surgical robot products in overseas markets in the future. We plan to recruit talents in R&D, manufacturing, supply chain and marketing all over the world to cooperate with the implementation of the globalization strategy. We also plan to cooperate with the top hospitals and well-known research institutions all over the world to enhance our soft power in the industry.

FINANCIAL REVIEW

Overview

The following discussion is based on, and should be read in conjunction with, the financial information and the notes included elsewhere in this announcement.

Revenue

The Group recorded revenue of RMB47.6 million for the six months ended 30 June 2023, representing a significant increase of 4,442.3% as compared to the six months ended 30 June 2022, which was mainly due to: (1) as the first domestic laparoscopic surgical robot to achieve commercialised installation, Toumai, our Core Product, has utilized its leading advantage in the industry and completed multiple commercial installations to expand its market share rapidly during the Reporting Period; (2) SkyWalker, our flagship product, has achieved excellent commercialization results in China and overseas, it has completed first commercial installation in China and recorded overseas revenue for the Group for the first time; (3) DFVision, our flagship product, achieved steady growth in terms of both revenue and sales volume leveraging on its excellent commercialization base.

Selling and Marketing Expenses

Selling and marketing expenses increased by 97.8% from RMB64.2 million for the six months ended 30 June 2022 to RMB126.9 million for the six months ended 30 June 2023, which was primarily attributable to successive launch of various products resulting in significant increase in selling and marketing expenses which consisted of: (1) increase in staff costs including salaries, bonus and welfare, as well as share-based payment expenses due to increase in number of employees for the commercial team; and (2) increase in consumption of materials for doctor trainings and marketing validation.

Administrative Expenses

Administrative expenses increased by 19.1% from RMB65.1 million for the six months ended 30 June 2022 to RMB77.6 million for the six months ended 30 June 2023. The increase was due to operational expenses related to business concentration strategy during the Reporting Period, including relocation expenses arising from optimization of leased properties.

Research and Development Costs

Research and development costs decreased by 7.3% from RMB336.4 million for the six months ended 30 June 2022 to RMB311.7 million for the six months ended 30 June 2023, which was primarily due to the Group's improvement in the efficiency of research and development materials, including the reuse of historically invested materials.

The following table provides information regarding the breakdown of the research and development costs of the Company for the periods indicated:

	Six months ended 30 June	
	2023	2022
	RMB'000	RMB'000
Staff costs	189,997	179,398
Cost of materials and consumables	60,702	96,512
Contracting costs	23,332	20,970
Clinical trial expenses	7,858	5,509
Others ⁽¹⁾	29,807	34,022
Total	311,696	336,411

Note:

(1) Including depreciation and amortization and others expenses in relation to R&D.

Other Net Income/(Loss)

For the six months ended 30 June 2023, the Group recorded other net loss of RMB23.2 million, compared to other net income of RMB16.3 million for the six months ended 30 June 2022, which was primarily due to the expenses amounted RMB40.5 million incurred by optimization of leased properties.

Net Gain/(Loss) on Financial Instruments Carried at FVPL

For the six months ended 30 June 2023, the Group recorded a net loss of RMB1.9 million in relation to the changes in the fair value of financial instruments carried at FVPL, which was primarily due to the decrease in the fair value of the investments in NDR and Biobot, compared to a net gain of RMB9.5 million for the six months ended 30 June 2022.

Finance Costs

The finance costs of the Group increased from RMB5.6 million for the six months ended 30 June 2022 to RMB8.6 million for the six months ended 30 June 2023, primarily due to the increase in interest of bank loans in the Reporting Period.

Share of Losses of Equity-Accounted Investees

The share of losses of equity-accounted investees decreased by 7% from RMB18.1 million for the six months ended 30 June 2022 to RMB16.8 million for the six months ended 30 June 2023. The Group had four equity-accounted investees, the share of losses of equity-accounted investees was mainly attributable to the above mentioned investees still in research and development stage, recording net loss during the Reporting Period.

Non-HKFRS Measures

To supplement our unaudited consolidated statement of profit or loss and other comprehensive income which is presented in accordance with Hong Kong Financial Reporting Standards (“**HKFRS**”), we also use adjusted net loss as a non-HKFRS measure, which is not required by, or presented in accordance with, HKFRS. We believe that the presentation of non-HKFRS measure when shown in conjunction with the corresponding HKFRS measures provides useful information to investors and management in facilitating a comparison of our operating performance from period to period by eliminating potential impacts of certain items that do not affect our ongoing operating performance. Such non-HKFRS measure allows investors to consider metrics used by our management in evaluating our performance. However, the use of the non-HKFRS measures has limitations as an analytical tool, and you should not consider it in isolation from, or as a substitute for or superior to analysis of, our results of operations or financial condition as reported under HKFRS. In addition, the non-HKFRS financial measure may be defined differently from similar terms used by other companies and therefore may not be comparable to similar measures presented by other companies.

For illustrative purpose only, the following table shows our adjusted net loss and its reconciliation to loss for the periods indicated:

	Six months ended 30 June	
	2023	2022
	RMB'000	RMB'000
Loss for the period	(544,733)	(463,501)
Add:		
Share-based payments expenses ⁽¹⁾	<u>71,170</u>	<u>62,778</u>
Adjusted net loss for the period	<u>(473,563)</u>	<u>(400,723)</u>

Notes:

- (1) Share-based payments expenses are regarded as non-cash items, arising from granting shares or share options to certain employees of the Group, the amount of which may not solely correlate with the underlying performance of our business operations, and is also affected by nonoperating performance related factors that are not closely or directly related to our business activities.

Inventories

The inventories consist of raw materials, work in progress and low-value consumables. We recorded inventories of RMB271.4 million as at 30 June 2023 as compared to the Group's inventories of RMB250.5 million as at 31 December 2022. The change was primarily due to commercialization of multiple products and large-scale production by the Group.

In addition, we are of the view that our inventories are mostly moving items that are suitable for sale. We also regularly monitor inventory level for slow-moving and obsolete items.

Lease Liabilities

As at 30 June 2023, we recorded lease liabilities of RMB134.4 million as compared to the Group's lease liabilities of RMB186.9 million as at 31 December 2022, which were primarily related to optimization of leased properties during the Reporting Period.

Capital Expenditure

The Group's total capital expenditure amounted to RMB42.3 million for the six months ended 30 June 2023, including the payments for property, plant and equipment.

Contingent Liabilities

As at 30 June 2023, the Group did not have any contingent liabilities.

Employees and remuneration policies

As at 30 June 2023, the Group had around 900 employees. The remuneration package of our employees includes salaries, bonus and welfare and share-based payments which shall be determined based on their respective qualification, experience, position and performance. We make social insurance and housing provident fund contributions as required by the laws and regulations of the PRC.

LIQUIDITY, FINANCIAL RESOURCES AND CAPITAL MANAGEMENT

Cash Position

The cash and cash equivalents of the Group decreased from RMB748.0 million as at 31 December 2022 to RMB704.6 million as at 30 June 2023, primarily due to increasing marketing activities, ongoing R&D activities and commencement of scale production.

Capital Management

The Group's objectives in the aspect of managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital. The Group actively and regularly reviews and manages its capital structure to maintain a balance between the higher shareholders returns that might be possible with higher levels of borrowings and the advantages and security afforded by a sound capital position, and makes adjustments to the capital structure in light of changes in economic conditions.

Exposure to Foreign Exchange Fluctuation

The Group has transactional currency exposures arising from transactions by the entities within the Group in currencies other than their respective functional currencies. It is exposed to currency risk primarily from (i) purchases which give rise to payables that are denominated in foreign currencies; and (ii) financing activities that are in Hong Kong dollars. Currently, it does not have a foreign currency hedging policy. However, the management would monitor the foreign exchange exposure and consider hedging significant foreign currency exposure should the need arise.

As at 30 June 2023, the Group had cash and bank balances denominated in United States dollars and Hong Kong dollars of RMB20.2 million and RMB6.4 million (31 December 2022: RMB0.7 million and RMB7.2 million), respectively, all of which are subject to fluctuations in exchange rates.

Borrowings and Gearing Ratio

As at 30 June 2023, the total interest-bearing borrowings of the Group amounted to RMB459.2 million, increased by RMB426.1 million as compared to RMB33.1 million as at 31 December 2022. As at 30 June 2023, the Group's net gearing ratio (as calculated by total interest-bearing bank borrowings as at the end of respective periods divided by total equity as at the same date) increased to 48.9%, as compared to 2.4% as at 31 December 2022.

Net Current Assets

The Group's net current assets as at 30 June 2023 were RMB424.0 million, as compared to RMB773.5 million as at 31 December 2022.

Charge on Assets

As at 30 June 2023, there was no material charge on assets of the Group.

FUTURE PLANS FOR MATERIAL INVESTMENTS OR CAPITAL ASSETS

There is no plan authorised by the Board for any material investments or capital assets during the six months ended 30 June 2023.

USE OF NET PROCEEDS

Net proceeds from the Listing (including the full exercise of the over-allotment option), after deducting the underwriting commission and other estimated expenses in connection with the Listing which the Company received amounted to approximately HK\$1,682.6 million (equivalent to approximately RMB1,375.4 million).

The original plan for utilization of the net proceeds raised from the Listing has been disclosed in the section headed "Future Plans and Use of Proceeds" in the Prospectus. In order to allow the Group to deploy the proceeds from the Listing more efficiently so as to further focus on iterating/upgrading of principal products falling within the early commercial stage, and accounted into the current key operational demands of the Company and the long-term benefits of the Company and the Shareholders, the Board has resolved to change the use of part of the unutilized proceeds from the Listing (the "**Change**"), details of which have been disclosed in the announcement issued by the Company dated 29 June 2023.

The following table sets forth details of the net proceeds as at 30 June 2023:

	Original allocation of net proceeds	Revised allocation of the net proceeds following the Change	Amount of unutilized net proceeds as at 1 January 2023 ^(note 1)	Actual use of net proceeds for the six months ended 30 June 2023	Amount of unutilized net proceeds as at 30 June 2023	Expected timeline of the intended use of the net proceeds following the Change
	(HK\$ million)	(HK\$ million)	(HK\$ million)	(HK\$ million)	(HK\$ million)	
A. For Toumai	588.91	745.13	258.57	108.61	149.96	By the first half of 2024
— ongoing R&D activities of Toumai	336.52	492.74	189.59	60.20	129.39	By the first half of 2024
• for further refinement	33.65	— ^(note 2)	—	0.04 ^(note 2)	— ^(note 2)	— ^(note 2)
• for application expansion to gynecologic, thoracic and general surgeries	100.96	— ^(note 2)	—	17.14 ^(note 2)	— ^(note 2)	— ^(note 2)
• for product refinement per clinical feedback and product upgrade toward the next generation of Toumai	201.91	— ^(note 2)	—	15.98 ^(note 2)	— ^(note 2)	— ^(note 2)
— the commercialization of Toumai	252.39	252.39	68.98	48.41	20.57	By the end of 2023
B. For orthopedic surgical robots	353.35	353.35	218.12	64.42	153.70	By the first half of 2024
— ongoing R&D of SkyWalker	168.26	218.26	151.35	39.34	112.01	By the first half of 2024
• for application expansion to other joint replacement procedures	92.54	127.54	84.22	25.00	59.22	By the first half of 2024
• for continuous refinements and upgrades	75.72	90.72	67.13	14.35	52.78	By the first half of 2024
— commercialization of SkyWalker	107.69	107.69	63.49	22.68	40.81	By the first half of 2024
— research and development of other orthopedic surgical robots	77.40	27.40	3.28	2.40	0.88	By the first half of 2024

	Original allocation of net proceeds	Revised allocation of the net proceeds following the Change	Amount of unutilized net proceeds as at 1 January 2023 ^(note 1)	Actual use of net proceeds for the six months ended 30 June 2023	Amount of unutilized net proceeds as at 30 June 2023	Expected timeline of the intended use of the net proceeds following the Change
	(HK\$ million)	(HK\$ million)	(HK\$ million)	(HK\$ million)	(HK\$ million)	
C. For the Group's other product candidates	319.69	245.84	21.81	11.81	10.00	By the first half of 2024
— (i) the development of our other pipeline products in other surgical specialties, including our transbronchial surgical robot and TAVR surgical robot and (ii) the development of new robotic technologies and products to replenish our pipeline	235.56	235.56	11.81	11.81	—	—
— the development and commercialization of the surgical robots under our collaboration with international partners, including R-ONE with Robocath, ANT with NDR and Mona Lisa with Biobot	84.13	10.28	10.00	—	10.00	By the first half of 2024
D. Enhance our manufacturing capacities and supply chain management capabilities	84.13	84.13	25.83	14.60	11.23	By the end of 2023
E. Expand our product portfolio with innovative robotic technologies and products	168.26	85.89	—	—	—	—
F. Working capital and general corporate purposes	168.26	168.26	65.51	38.04	27.47	By the end of 2023
Total	1,682.60	1,682.60	589.84	237.47	352.37	

Notes:

1. The amount of unutilized net proceeds as at 1 January 2023 was restated as if the Change had taken place at 1 January 2023.
2. These sub-categories are consolidated to their super-category of “ongoing R&D activities of Toumai” following the Change.

Save for the above, the Directors were not aware of any material change to the planned use of proceeds as of 30 June 2023.

SIGNIFICANT INVESTMENTS HELD, MATERIAL ACQUISITIONS AND DISPOSALS OF SUBSIDIARIES, ASSOCIATES AND JOINT VENTURES

The Company has no significant investments or material acquisitions or disposals of subsidiaries, associates and joint ventures during the Reporting Period.

PURCHASE, SALE OR REDEMPTION OF THE COMPANY’S LISTED SECURITIES

During the Reporting Period, neither the Company nor any of its subsidiaries purchased, sold or redeemed any of the Company’s listed securities.

CORPORATE GOVERNANCE PRACTICES

The Company aims to achieve high standards of corporate governance which are crucial to the development and safeguard the interests of the Shareholders. The Board reviewed the Company’s corporate governance practices and is satisfied that the Company has complied with all applicable code provisions as set out in the CG Code during the Reporting Period.

The Company will continue to review and enhance its corporate governance practices to ensure compliance with the CG Code.

MODEL CODE FOR SECURITIES TRANSACTIONS

The Company has adopted the Model Code as the guidelines for the Directors’ and Supervisors’ dealings in the securities of the Company since the Listing. Following specific enquiries to each of the Directors and Supervisors, all the Directors and Supervisors have confirmed their compliance with the required standards set out in the Model Code during the Reporting Period.

INDEPENDENT REVIEW OF AUDITOR

The interim financial report for the six months ended 30 June 2023 is unaudited, but has been reviewed by KPMG, in accordance with Hong Kong Standard on Review Engagements No. 2410 “Review of interim financial information performed by the independent auditor of the entity” issued by the HKICPA.

AUDIT COMMITTEE AND REVIEW OF FINANCIAL STATEMENTS

The Company has established the Audit Committee with written terms of reference in compliance with the CG Code, with the primary duties of the Audit Committee are to assist the Board by providing an independent view of the effectiveness of the financial reporting process, internal control and risk management systems of the Company and overseeing the audit process. As at the date of this announcement, the Audit Committee comprises three members: namely Mr. Mui Wing Hong (chairman), Mr. Sun Xin and Dr. Li Minghua.

The Audit Committee has reviewed and discussed the interim results for the six months ended 30 June 2023.

SUBSEQUENT EVENT

Save as disclosed and as at the date of this announcement, the Group did not have any other significant event subsequent to the Reporting Period.

INTERIM DIVIDEND

The Directors do not recommend the payment of an interim dividend for the six months ended 30 June 2023 to the Shareholders.

FORWARD-LOOKING STATEMENTS

This results announcement includes certain forward-looking statements which involve the financial conditions, results and businesses of the Group. These forward-looking statements are the Group's expectation or beliefs on future events and they involve known and unknown risks and uncertainties, which may cause actual results, performance or development of the situation to differ materially from the situation expressed or implied by these statements.

PUBLICATION OF INTERIM RESULTS ANNOUNCEMENT AND INTERIM REPORT

This interim results announcement is published on the websites of Hong Kong Exchanges and Clearing Limited (<http://www.hkexnews.hk>) and the Company (<http://www.medbotsurgical.com>). The 2023 interim report of the Company will be despatched to the Shareholders in due course and will also be available at the websites above at the same time.

APPRECIATION

The Board would like to express its sincere gratitude to our Shareholders, management team, employees, business partners and customers for their support and contribution to the Group.

DEFINITIONS

In this announcement, the following expressions shall have the meaning set out below unless the context requires otherwise:

“ANVISA”	Brazilian Health Regulatory Agency
“Audit Committee”	the audited committee of the Company
“Biobot”	Biobot Surgical Pte. Ltd., a company established in Singapore with limited liability on August 28, 2007
“Board”	the board of Directors
“CG Code”	the corporate governance code contained in Appendix 14 to Listing Rules
“Company” or “we” or “us” or “our”	Shanghai MicroPort MedBot (Group) Co., Ltd. (上海微创医疗机器人(集团)股份有限公司), a company incorporated in the People's Republic of China, the H Shares of which are listed on the Main Board of the Stock Exchange (Stock Code: 2252)

“Core Product” or “Toumai”	has the meaning ascribed to it in Chapter 18A of the Listing Rules; for the purposes of this announcement, our Core Product refers to, Toumai [®] (圖邁 [®]) Laparoscopic Surgical Robot (registered name in China)
“DFVision”	DFVision [®] (蜻蜓眼 [®]) 3D Electronic Laparoscope (registered name in China)
“Director(s)”	director(s) of the Company
“Domestic Shares”	ordinary Shares in the share capital of the Company with a nominal value of RMB1.00 each, which are subscribed for and paid for in RMB
“EU”	European Union
“FDA”	the U.S. Food and Drug Administration
“Green Path”	the special approval procedure for innovative medical devices of the NMPA
“Group”	the Company and its subsidiaries
“SkyWalker”	SkyWalker TM (鴻鵠 [®]) Orthopedic Surgical Robot (registered name in China)
“Hong Kong”	the Hong Kong Special Administrative Region of the PRC
“H Share(s)”	the overseas listed foreign share(s) in the ordinary share capital of the Company with a nominal value of RMB1.00 each, which are subscribed for and traded in Hong Kong dollars and listed on the Main Board of the Stock Exchange and such Domestic Shares converted into H Shares upon the Domestic Shares been approved for full circulation under the full circulation scheme
“Listing”	the listing of the H Shares on the Main Board of the Stock Exchange
“Listing Date”	2 November 2021, the date on which dealings in the H Shares on the Main Board first commenced
“Listing Rules”	the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited
“MicroPort”	MicroPort Scientific Corporation (微創醫療科學有限公司), an exempted company incorporated in the Cayman Islands with limited liability on 14 July 2006 whose shares are listed on the Main Board of the Stock Exchange (Stock Code: 853)

“MicroPort Group”	MicroPort and its subsidiaries
“Model Code”	Model Code for Securities Transactions by Directors of Listed Issuers as contained in Appendix 10 to the Listing Rules
“Mona Lisa”	iSR’obot [®] Mona Lisa Robotic Transperined Prostate Biopsy System (the registered name in China)
“National Health Commission”	National Health Commission of the PRC
“NDR”	NDR Medical Technology Private Limited, a company incorporated in Singapore with limited liability on 20 October 2014
“NMPA”	National Medical Products Administration of the PRC
“PRC”	the People’s Republic of China, for the purpose of this announcement, shall not include Hong Kong, Macau Special Administrative Region and Taiwan
“Prospectus”	the prospectus of the Company dated 21 October 2021
“Reporting Period”	for the six months ended 30 June 2023
“Robocath”	Robocath S.A.S, a company incorporated in France with limited liability on 9 October 2009
“R-ONE”	R-ONE Vascular Interventional Surgical Robot
“Shanghai Cathbot”	Cathbot (Shanghai) Robot Co., Ltd. (知脈(上海)機器人有限公司), a company established in the PRC with limited liability on March 19, 2021 which is owned as to 51% by the Company and 49% by Robocath
“Shanghai Intbot”	Shanghai Intbot Robotics Co., Ltd. (上海介航機器人有限公司), a company established in the PRC with limited liability on March 12, 2021 which is owned as to 40% by the Company, 30% by Biobot and 30% by Shanghai Lingmin Enterprise Consultation Center LLP (上海矜敏企業管理諮詢中心(有限合夥))
“Shanghai Targbot”	Shanghai Targbot Medtech Co., Ltd. (上海術航機器人有限公司), a company established in the PRC with limited liability on February 4, 2021 which is owned as to 41% by the Company, 39% by NDR and 20% by Shanghai Youlong Enterprise Consultation Center LLP (上海佑隆企業管理諮詢中心(有限合夥))

“Share(s)”	ordinary share(s) of the Company, comprising Domestic Shares and H Shares
“Shareholder(s)”	holder(s) of the Shares
“Stock Exchange”	The Stock Exchange of Hong Kong Limited
“subsidiary(ies)”	has the meaning ascribed thereto under the Listing Rules
“Supervisor(s)”	the supervisor(s) of the Company
“TGA”	Therapeutic Goods Administration
“United States” or “US”	the United States of America
“%”	per cent

By order of the Board
Shanghai MicroPort MedBot (Group) Co., Ltd.
Mr. Sun Hongbin
Chairman

Shanghai, China, 29 August 2023

As at the date of this announcement, the executive Director is Dr. He Chao, the non-executive Directors are Mr. Sun Hongbin, Mr. Sun Xin and Mr. Chen Chen, and the independent non-executive Directors are Dr. Li Minghua, Mr. Yao Haisong and Mr. Mui Wing Hong.