



**MEDBOT™**  
微创机器人



# 2022 Annual Presentation

MARCH 2023



Strictly Private and Confidential

## Business highlights

Commercialization

Product pipeline update

Financial review

Appendix

# FY 2022 achievements at a glance

In 2022, we achieved outstanding pipeline and commercialization progress in five major surgical specialties  
4 products won new bids/trial orders in Greater China and US markets, paving the way for robust growth of revenue in FY23E

## Financial highlights

- Revenue: RMB 21.6m  905%YOY
- Investment on ongoing R&D activities in pipeline
- Increased commercialization expenditure along with intensive products launch
- Adjusted net loss, excluding Share-based payment to illustrate our operating performance, would report at RMB 1,009.4m.



## Commercialization

### Achievements

- Toumai® : **5** bids won with **1<sup>st</sup>** commercial installation
- SkyWalker™ : **1<sup>st</sup>** bid won in China  
**4** systems installed for pre-sales trial in **US market**
- DFVision® : **Robust YoY growth** in both sales volume and revenue
- Mona Lisa : **1<sup>st</sup>** unit of sale in Taiwan



### Hospital coverage

#### Surgeons Training

- **Training centres** actively deployed:
  - Toumai® - **over 30** centres as of now
  - SkyWalker™ - **over 15** centres as of now
- **400+ senior surgeons** trained
- **~1,500** training procedures completed

#### Clinical Validation

- Toumai® : **>300** clinical validation procedures completed
- SkyWalker™ : **>180** clinical validation procedures completed

## Product Pipeline

### Laparoscopic

- Toumai® **1<sup>st</sup> Generation** obtained **NMPA approval** in Jan 2022  
Toumai® **2<sup>nd</sup> Generation** completed multi-indication, multi-center registrational clinical trial; NMPA application for gynaecology, thoracic and general surgery under review
- Toumai® **single-arm** commenced registrational clinical trials enrollment

### Orthopedic

- SkyWalker™
  - Obtained **NMPA approval** in Apr 2022
  - Steady **globalization footprint**:
    - **FDA 510k clearance** in Jul 2022
    - **CE Marking** in Dec 2022
  - Completed **THA FIM surgery** and **UKA FIM surgery**

### Natural Orifice

- **Trans-bronchial surgical robot** – Completed **FIM surgery** in Mar 2022; Expected to kick off the **registration clinical trial** in near term

### Panvascular

- R-ONE® – **NMPA application under review**

### Percutaneous

- Mona Lisa – **NMPA application under review**

### 5G Remote Surgery Technology

- **World's longest-range** 5G tele-robotic surgery as of today
- **1<sup>st</sup> 5G tele-robotic** remote hepatobiliary surgery in China



# Agenda

Business highlights

**Commercialization**

Product pipeline update

Financial review

Appendix

# 1<sup>st</sup> year of commercialization - Successive orders from reputable hospitals

4 products winning bids in 3 surgical specialties with more sales indications from other hospitals  
Paving the way for robust growth in FY23 revenue



**Toumai®**

**5** winning bids

**1<sup>st</sup>** Chinese laparoscopic surgical robot to achieve commercialized installation



甘肃省武威肿瘤医院  
Gansu Wuwei Tumour Hospital



甘肃省人民医院  
GANSU PROVINCIAL HOSPITAL



东莞市东南部中心医院



**SkyWalker™**

Won bid for **1<sup>st</sup>** system in China



甘肃省人民医院  
GANSU PROVINCIAL HOSPITAL



**1<sup>st</sup>** domestic orthopedic surgical robot to expand into global market



**4** systems Installed abroad for trial runs



**DFVision®**

Robust growth in both sales revenue and units



**Mona Lisa**



Realized sales of **first** system in Taiwan

# Leading domestic player to conduct large scale surgeon trainings



## Active deployment of training centers in 2022

- **Training centers** extensively established nationwide, covering most Chinese provinces and major cities, mainly through collaboration with reputable hospitals
  - **Over 30** Toumai® centers
  - **Over 15** SkyWalker™ centers
- **400+** senior surgeons trained
- **~1,500** training procedures completed



## Strategic training layout

- To improve **reputation of MedBot brand** among surgeons and patients
- To showcase **superior clinical capabilities of MedBot's products**
- Having covered lower tier **cities and counties**, providing surgical robot experience to larger group of surgeons

Training center layout

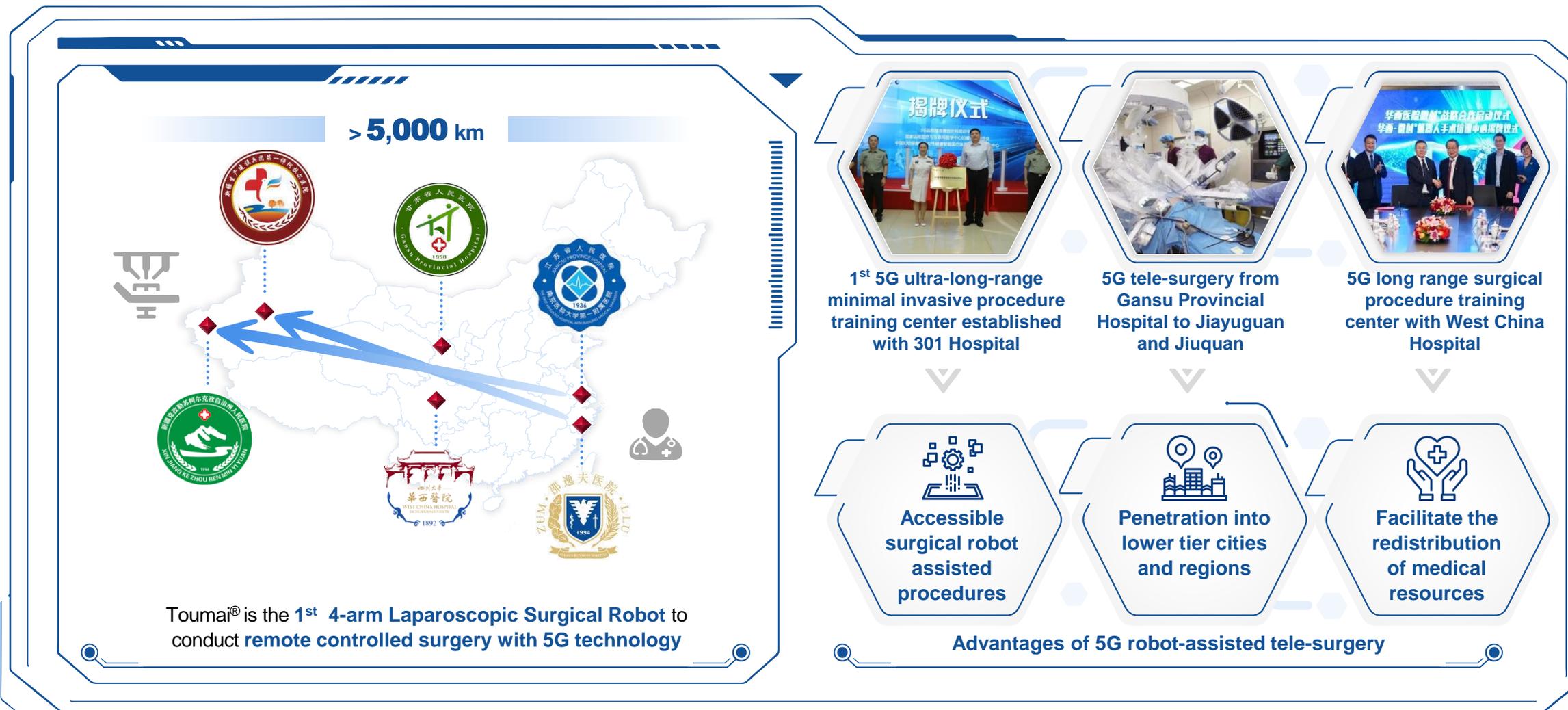


- ★ Hospital training centers
- 📍 Self-owned training centers



# Integration of 5G technology and surgical robot

Long range 5G technology application in robot assisted tele-surgeries and training



# Agenda

Business highlights

Commercialization

**Product pipeline update**

Financial review

Appendix

# Comprehensive product offering covering all 5 major and fast-growing surgical specialties

12 products covering 5 surgical specialties

	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	Touma <sup>®</sup> (图迈 <sup>®</sup> ) Laparoscopic Surgical Robot	Urologic surgery	III (Green Path)	[Progress bar: 100%]				🏆
		Touma <sup>®</sup> (图迈 <sup>®</sup> ) 2 <sup>nd</sup> Gen	Gynecologic surgery Thoracic surgery General surgery		[Progress bar: 85%]				
		Touma <sup>®</sup> (图迈 <sup>®</sup> ) Single-arm Laparoscopic Surgical Robot	Cholecystectomy	III	[Progress bar: 60%]				
		DFVision <sup>®</sup> (蜻蜓眼 <sup>®</sup> ) 3D Electronic Laparoscope	Laparoscopy	III (Green Path)	[Progress bar: 100%]				🏆
	Orthopedic Surgery	SkyWalker™ (鸿鹄 <sup>®</sup> ) Orthopedic Surgical Robot	Total knee arthroplasty	II (FDA)	[Progress bar: 100%]				🏆
				IIb (CE)	[Progress bar: 100%]				🏆
				III (Green Path)	[Progress bar: 100%]				🏆
		Total hip arthroplasty	III (Green Path)	[Progress bar: 80%]					
			Unicompartmental knee arthroplasty	III	[Progress bar: 75%]				
		Spine Surgical Robot	Spine surgery	III	[Progress bar: 55%]				
	Natural Orifice Surgery	Trans-bronchial Surgical Robot	Trans-bronchial diagnosis & treatment	III	[Progress bar: 85%]				
	Panvascular Surgery	TAVR Surgical Robot	Heart valve replacement surgery	III	[Progress bar: 40%]				
R-ONE <sup>®</sup> Panvascular Surgical Robot		Coronary angioplasty	III	[Progress bar: 95%]					
International collaboration	Percutaneous Surgery	Thoracic and Abdominal Puncture Surgical Robot	Percutaneous lung biopsy	III	[Progress bar: 70%]				
			Percutaneous liver biopsy		[Progress bar: 70%]				
		iSR <sup>®</sup> obot <sup>®</sup> Mona Lisa Robotic Transperineal Prostate Biopsy System	Transperineal prostate biopsy	III	[Progress bar: 95%]				

# Flagship product – Toumai® Laparoscopic Surgical Robot



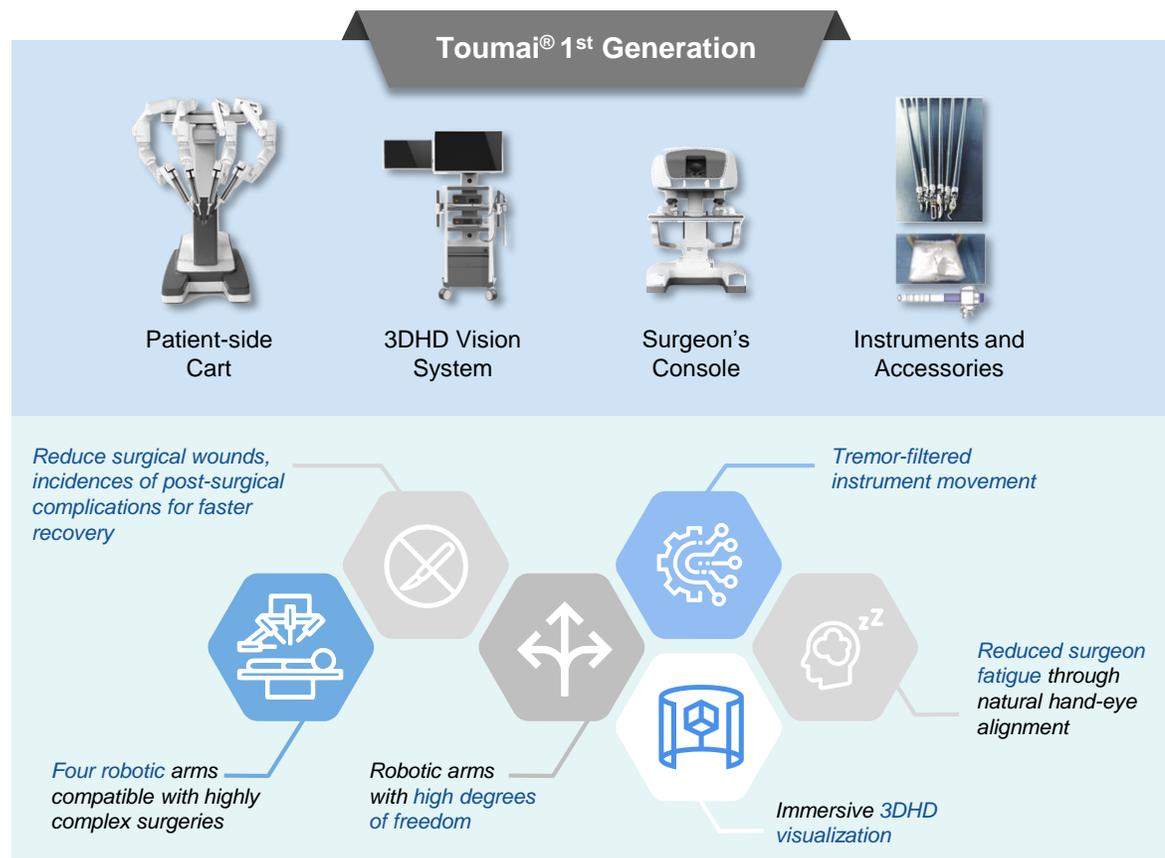
1<sup>st</sup> Domestic laparoscopic surgical robot received NMPA approval



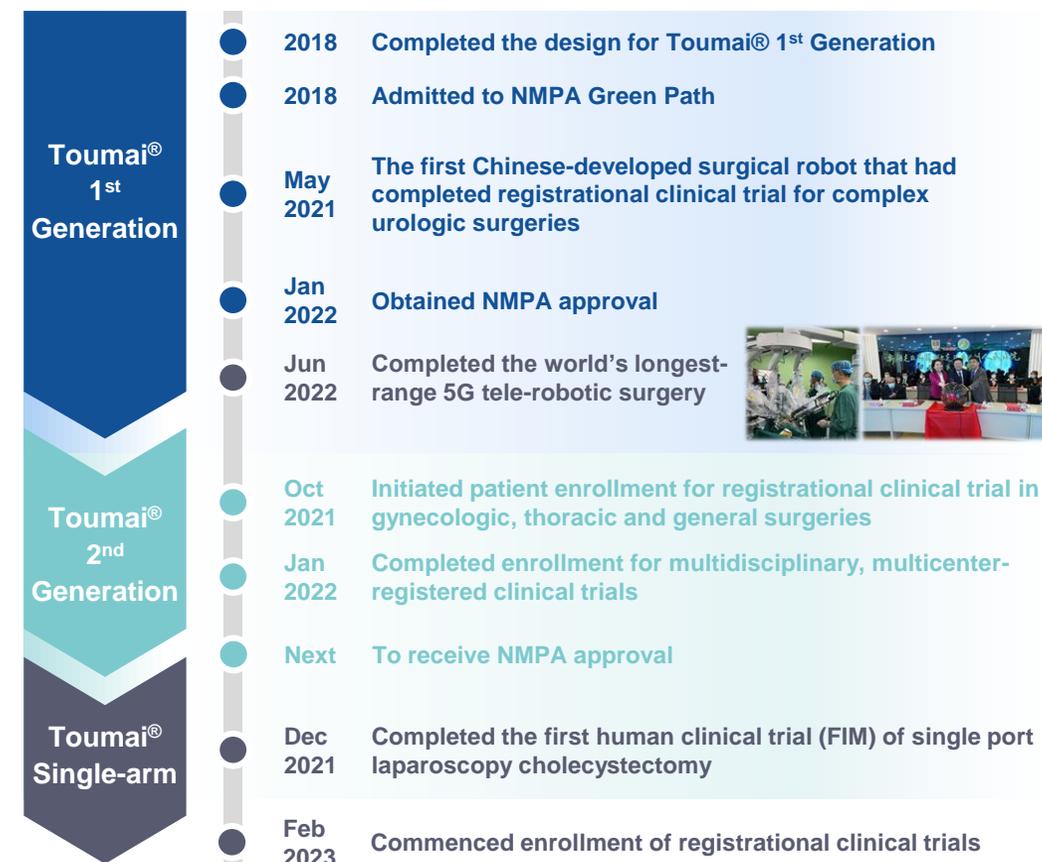
1<sup>st</sup> Domestic laparoscopic surgical robot to realize commercial installation



5 Surgical robots orders received



## Multiple generations of Toumai clinical progress



# Large scale clinical validation of Toumai®

**LARGE VOLUME**  
*clinical validation operations*  
*to ensure safety and reliability*



**~700**

clinical procedures  
 completed up to date

**Premium quality**

- **Safety and reliability** confirmed through large volume procedures
- **Imitating various scenarios in reality**, well-prepared for **normalized** commercial operations



**16**  
 Provinces



**31**  
 Hospitals

**WIDE COVERAGE**  
*across developed*  
*and lower tier cities*

**Pioneer in industry cultivating**

- Aiming at **promoting surgical robot technology and industry in China**, especially in lower tier cities and regions
- Showcase the **superior clinical capabilities of Toumai®**
- Honored to be **embraced and praised by diversified groups of surgeons**, along with **valuable post-operation feedback**.

# Large scale clinical validation of Toumai® (cont'd)

## HIGH FREQUENCY

### intense validation with successive operations



High surgery frequency to meet tremendous demand for Chinese surgeons

山东第一医科大学附属省立医院  
山东省立医院

Shandong Provincial Hospital Affiliated to Shandong First Medical University

**50** complex procedures for clinical validation in **2** months, including **28** urology and **22** gastrointestinal procedures



**~300**

procedures of implied annual capacity

大连医科大学附属第二医院  
Second Hospital of Dalian Medical University

**50** gynecology procedures for clinical validation in **3** months, covering several 1<sup>st</sup> trial by domestic surgical robot



郑州大学第一附属医院  
THE FIRST AFFILIATED HOSPITAL OF ZHENGZHOU UNIVERSITY

First Affiliated Hospital of Zhengzhou University

**5** complex procedures in a single day with solid stability and performance, setting a new record



**LEADING CAPABILITY**  
providing safer, easier and more efficient solutions for difficult and complicated diseases

First of its kind completed with a Chinese-developed laparoscopic surgical robot



**RALRP<sup>1</sup>**  
(removal of the entire prostate)

**RARN<sup>5</sup>**

**Single-port**

**RA-Hepatectomy**

**RAPN<sup>2</sup>**

**RA-Hysterectomy**

**RARL<sup>3</sup>**

**RARC<sup>6</sup>**

**RARG<sup>4</sup>**

**Extraperitoneal RALRP<sup>1</sup>**

Note: <sup>1</sup> Robot-assisted laparoscopic radical prostatectomy; <sup>2</sup> Robot-assisted partial nephrectomy; <sup>3</sup> Robot-assisted radical lobectomy; <sup>4</sup> Robot-assisted radical gastrectomy; <sup>5</sup> Robot-assisted radical nephrectomy; <sup>6</sup> Robot-assisted radical colorectectomy

# Flagship product – SkyWalker™ Orthopedic Surgical Robot

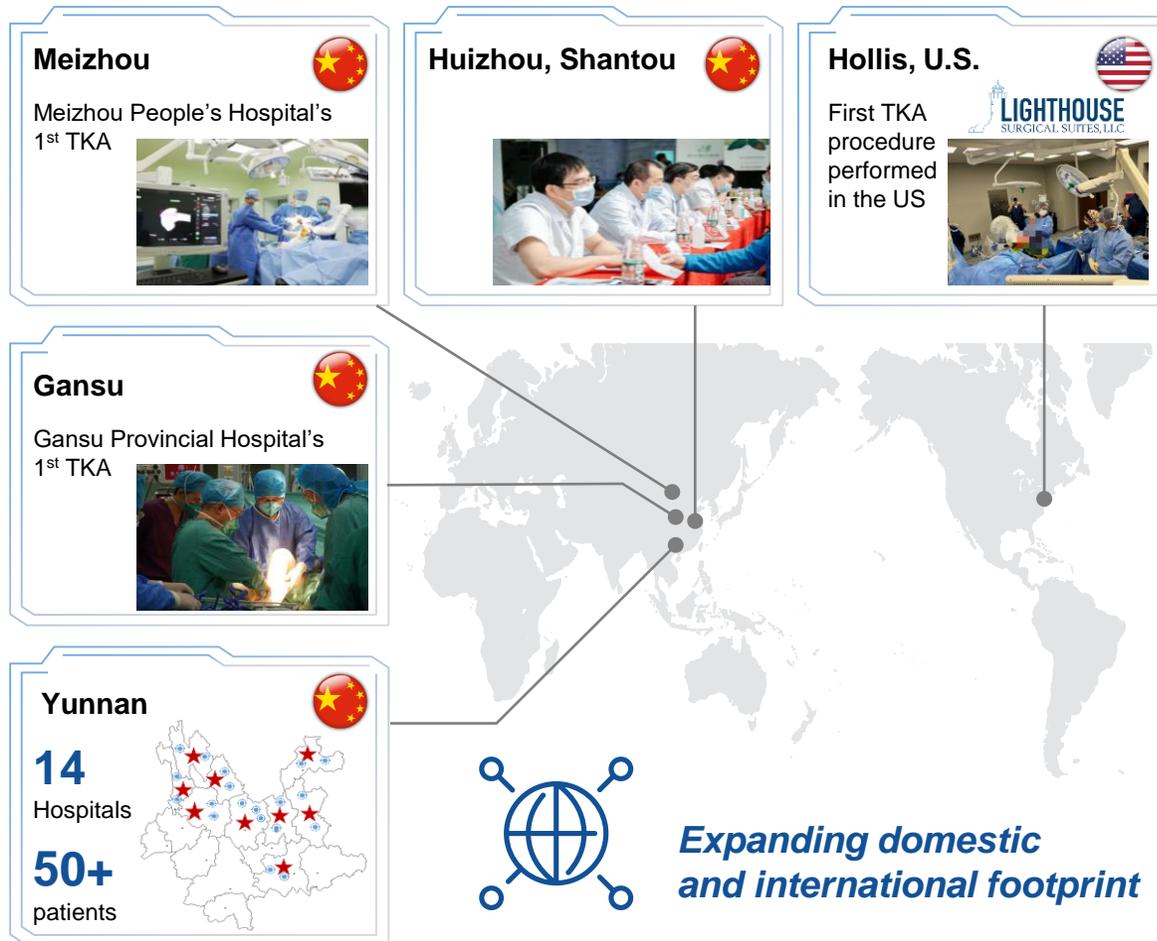


**First and only** domestic orthopaedic surgical robot with NMPA, FDA and CE approvals

*Large scale safety and reliability validation surgeries*

## Initiated Global Commercialization

	
	
<p><b>1<sup>st</sup> bid won</b> from reputable hospital</p>	<p><b>4 systems</b> in trial run</p>
<p><b>180+ clinical operations</b> performed</p>	<p><b>20+ clinical operations</b> performed</p>
<p>Expedited overseas commercialization by leveraging on the synergy with <b>MicroPort® Orthopedics</b></p>	



**Meizhou** 

Meizhou People's Hospital's  
1<sup>st</sup> TKA



**Huizhou, Shantou** 



**Hollis, U.S.** 

First TKA procedure performed in the US



**Gansu** 

Gansu Provincial Hospital's  
1<sup>st</sup> TKA



**Yunnan** 

**14**  
Hospitals

**50+**  
patients



# Flagship product – SkyWalker™ Orthopedic Surgical Robot



### Indication expansion

Integrated orthopaedic surgical robot platform compatible for both hip and knee

Completed FIM for THA

Completed FIM for UKA

### Collaboration with leading implant providers

- Strategic partnership with leading domestic implant providers
- Compatible with more implant brands, providing diversified options for patients and surgeons

### Steady upgrade in product capability

RA-TKA for sever deformity

Precise RA bone tumor operation

Efficiency orthopedics + AI

Remote surgery orthopedics + 5G

# Flagship product – DFVision® 3D Electronic Laparoscope



Rapid commercialization – robust YoY sales growth



Leading market share of new installation units among domestic 3D brands in 2022



Upgraded system to further enrich the product portfolio

## Light weight

- ✓ *DFVision*®'s dual objective lenses are placed at the tip of the borescope
- ✓ **Easier for surgeons to manipulate precisely**, particularly in small surgical fields

## Stereo visualization

- ✓ The natural depth of field allows the surgeon to have **intuitive observation**

## High-definition, real-time image transmission

- ✓ Strong image transmission and processing capabilities
- ✓ High magnification feature enables surgeons to **zoom in the view smoothly, observe minute blood vessels clearly and operate with greater precision**

3D electronic laparoscope

Image processor (3DHD vision system)

**Leading market share** of new installation units in 2022 among domestic 3D electronic laparoscope brands

# Natural Orifice Surgical Robot



## Robot-assisted natural orifice surgery

### Surgery application

- Natural orifice surgical robots refer to robots that deliver surgical instruments to the target anatomy through natural pathways of the human body and control them for diagnosis or surgery
- Natural orifice surgical robots are applied in natural orifice transluminal laparoscopic surgeries, such as



Bronchoscopy  
(examination of the lungs)



Colonoscopy  
(examination of the bowel)



Gastrosocopy  
(examination of the stomach)

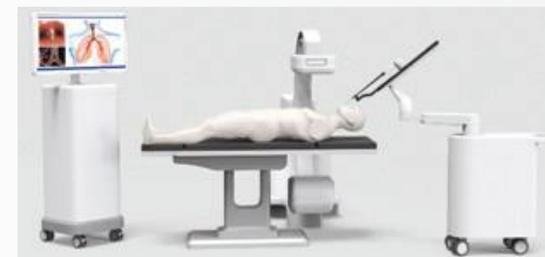
### Competitive landscape

- Globally there are only 4 FDA approved natural orifice surgical robots
- In China, there is no NMPA approved natural orifice surgical robots



Product

### Trans-bronchial Surgical Robot



Features /  
Technology

- Leverage the power of flexible robotics which uses a camera and tools to enter the lungs through their natural airways
- Precisely guide a biopsy instrument to those hard-to-reach nodules



Indication  
application

Trans-bronchial diagnosis and treatment



Clinical status

- Completed **FIM clinical trial** in Mar 2022 – **First trial surgery completed by domestic trans-bronchial surgical robot**
- Registrational clinical trial in near term

# R-ONE<sup>®</sup> Vascular Interventional Surgical Robot



Features /  
Technology

- Designed to operate with precision and perform specific movements
- Facilitate and enhance the interventional procedures performed on the patient



Indication  
application

- Coronary angioplasty

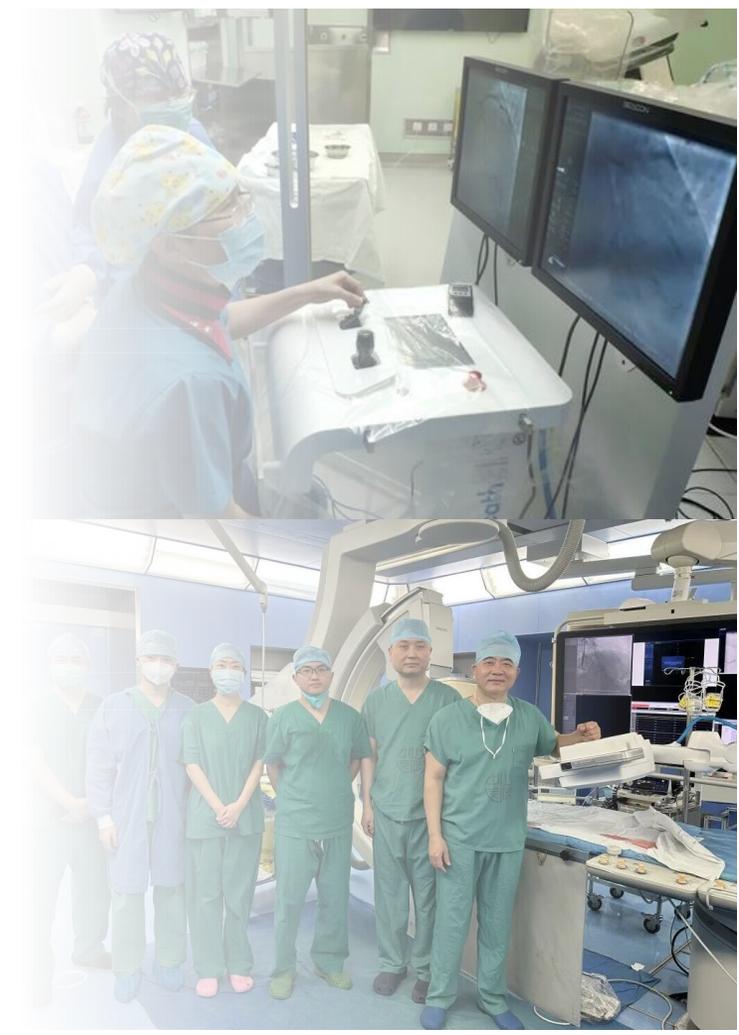


Clinical  
status

- Completed the registration clinical trial in May 2022
- **NMPA application under review**
- **Expected to obtain NMPA approval in 2023E**



PCI live surgery performed by **Academician Ge Junbo** during CCCP2022 event



# Mona Lisa Robotic Transperineal Prostate Biopsy System



CE Marking  
FDA approval

¥ 1<sup>st</sup> unit of sales in Taiwan

↑ Integration of diagnostics and treatment

1<sup>st</sup> prostate cancer treatment globally through combination of prostate biopsy surgical robot and cryoablation platform



Features / Technology

- Real-time 2D ultrasound images displayed on the monitor during the biopsy procedure
- The surgeon manually inserts the needle into the prostate to collect the biopsy cores



Indication application

- Transperineal prostate biopsy<sup>1</sup>
- Expect to cooperate with Toumai<sup>®</sup>, providing integrated solutions in urology



Clinical status

- Completed the registration clinical trial in April 2022
- NMPA application under review
- Expected to obtain NMPA approval in 2023E



Note: <sup>1</sup> A diagnostic procedure in which the surgeon passes the biopsy needle through the perineal skin and into the prostate

# Strong industrial operation capabilities for surgical robots



**948**  
applications  
(844 invention patents)

**304**  
overseas applications  
(285 invention patents)



**445**  
applications

**103**  
granted

Patents covering clinical application, automation, AI and other technologies



Multilayered supply chain system



Scalable production of Toumal<sup>®</sup>, SkyWalker<sup>™</sup>



Annual capacity over 100 units of system

Standard Setting

Global

In-house



Recognized operation capabilities



Multiple regulatory certificates



ISO9001

Quality control



Quality management system in accordance with ISO13485 standard covering every aspect of operations



Design & Development



Procurement



Registration



Manufacturing

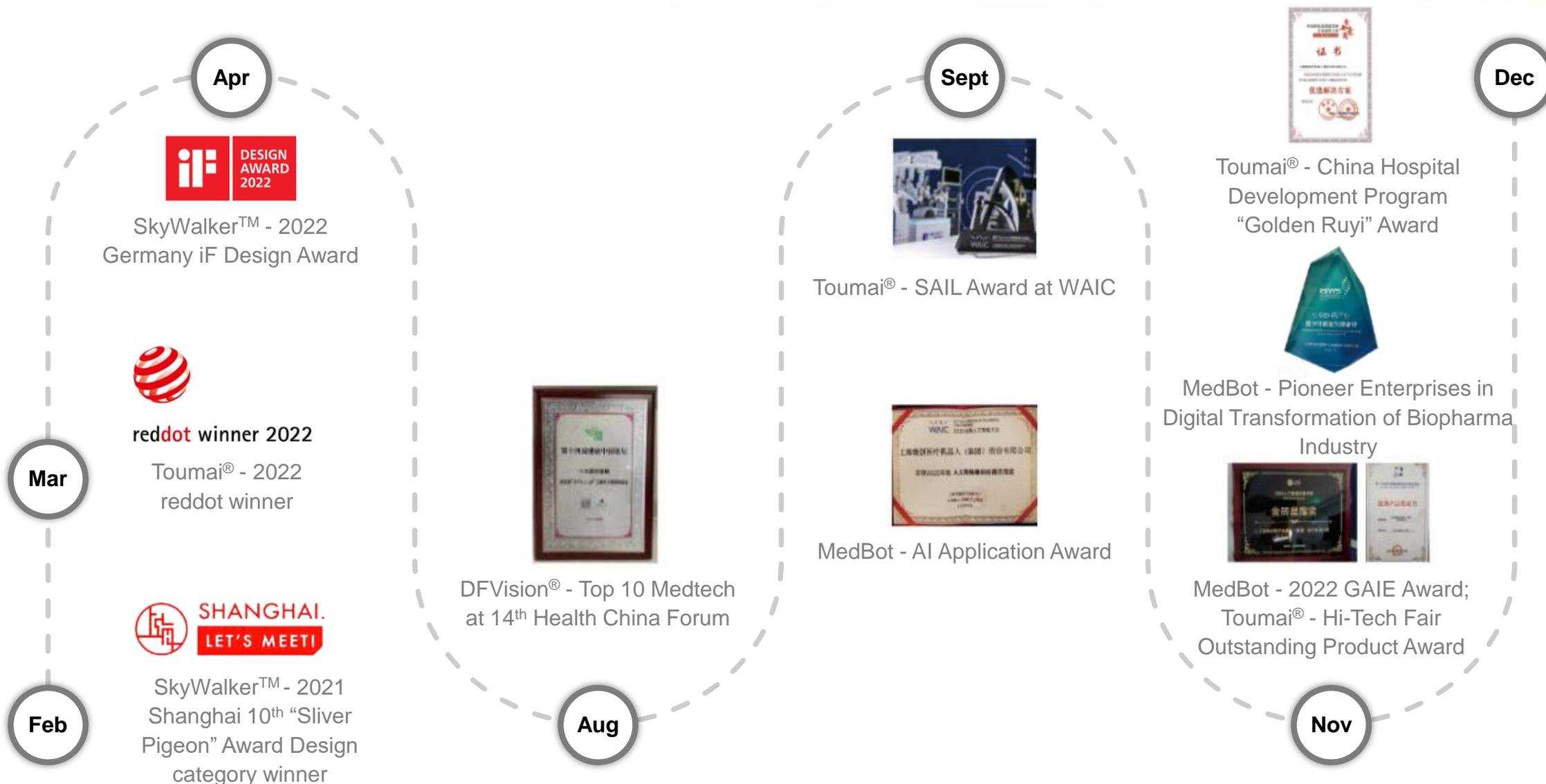


Promotion



Services

# Outstanding award winning track record in 2022



# Agenda

Business highlights

Commercialization

Product pipeline update

**Financial review**

Appendix

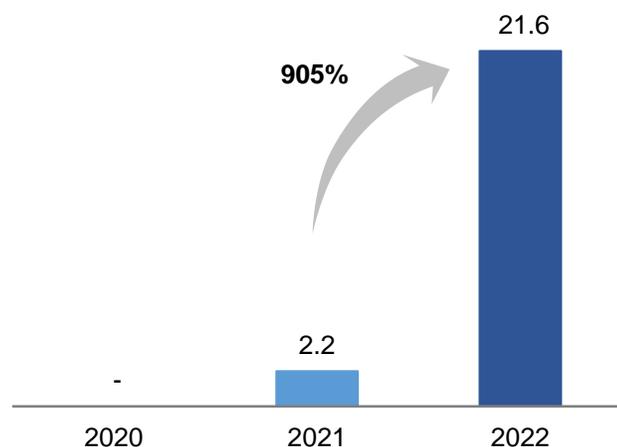
# Core product breakthrough and adequately invested

## Core-product Breakthrough

Total revenue reached 21.6m with 905% growth. Core product Toumai® won 5 bidding and completed 1 installment after NMPA approval in 1H 2022. The revenue from DFVision grew by nearly 900% in its 1<sup>st</sup> full performance year after launch.

### REVENUE

(RMB million)



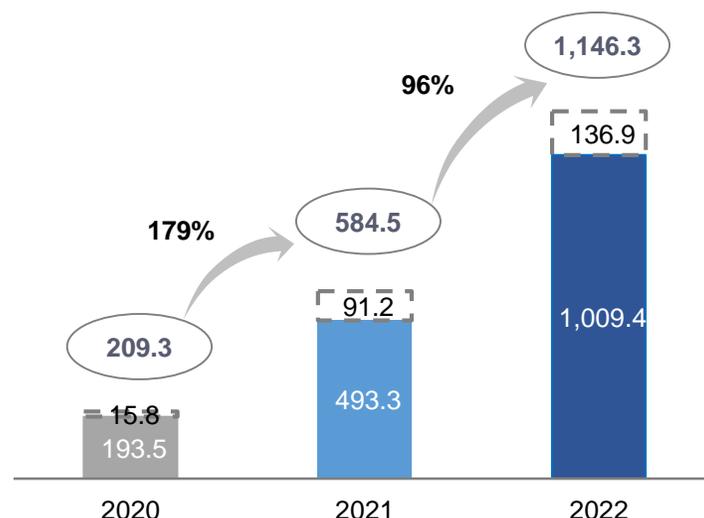
## Adequately Invested

On-going R&D projects were adequately invested and achieved key milestones. Core and flagship products were moving towards mass production and commercialization with optimal resources input.

### TOTAL NET LOSS

(RMB million)

SBP

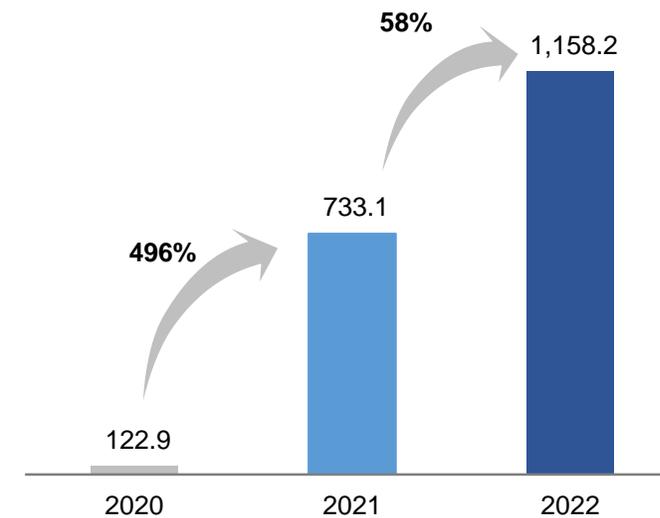


## Free Cash-flow Management

Operating cash-flow increased in line with the operating expenses. The CAPEX investment on supply chain capacity and training centers was nearly completed in past two years.

### FREE CASH-FLOW

(RMB million)



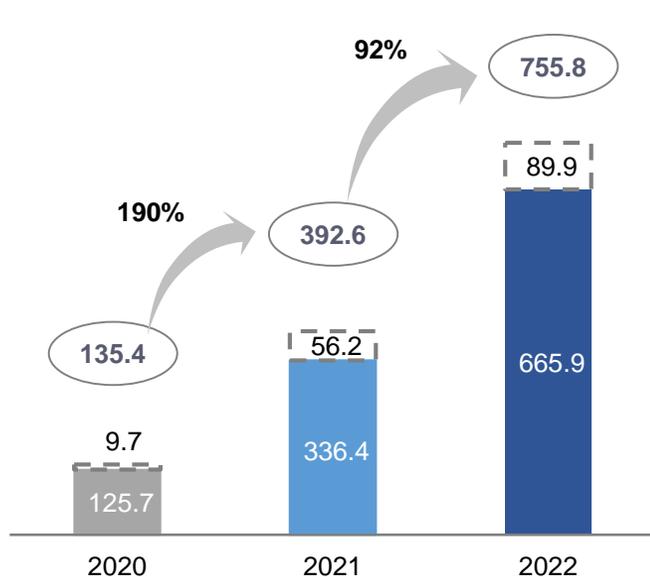
# Investment on future – Operating Expenses

## Invest for future

### R&D COST

(RMB million)

SBP



R&D 755.8m (excl. SBP 665.9m), 92% growth YoY to support on-going and new projects

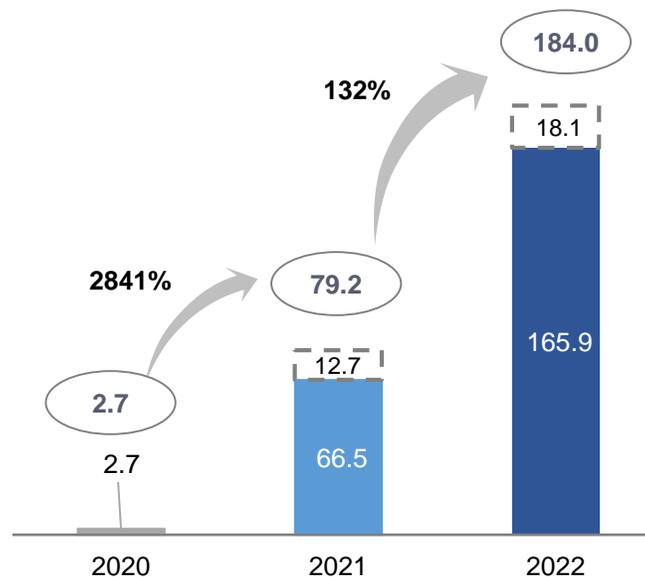
- Personnel costs (excl. SBP) +160.6m
- Robotic systems and consumables +129.4m

## Prepare for sales ramp-up

### S&M EXPENSES

(RMB million)

SBP



S&M 184.0m (excl. SBP 165.9m), grew by 132% YoY

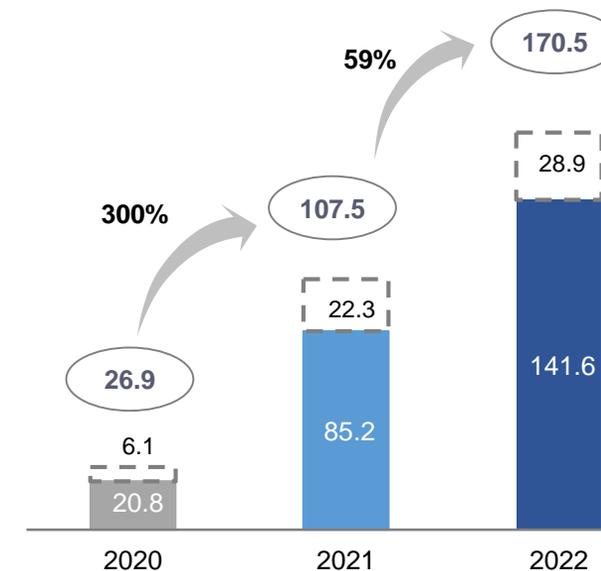
- The expansion of specialized commercial team
- Expenses for training surgeons and clinical validation

## Support overall business growth

### ADMINISTRATIVE EXPENSES

(RMB million)

SBP

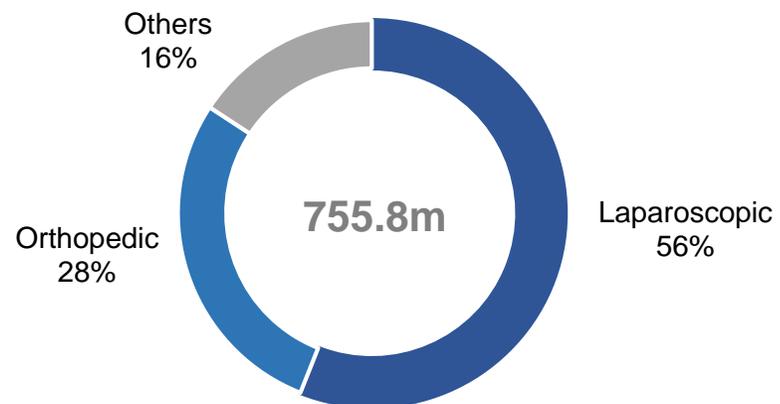


G&A 170.5m (excl. SBP 141.6m), increased by 59% YoY

Increased spending on mgt & admin staff costs, office rental, to support the overall business growth

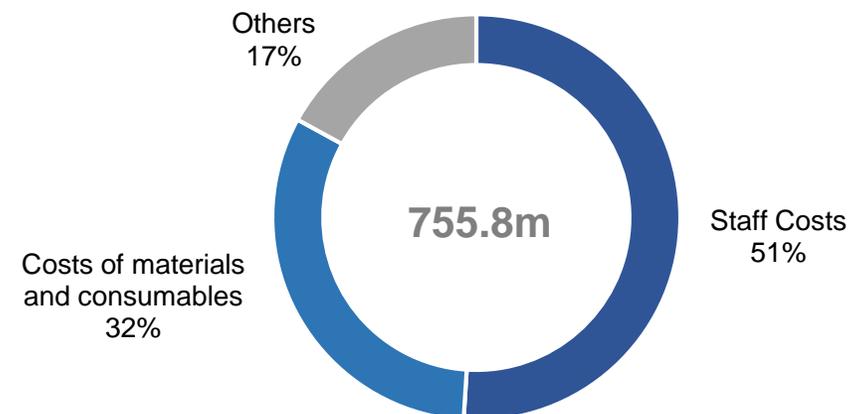
# Research and Development Cost

## FUND PIPELINE PRODUCTS



- **Laparoscopic:** **Toumai@1st** received NMPA approval in Jan 22; **Toumai@2rd** submitted for NMPA approval of gynaecology, thoracic and general surgery; **Single-arm** completed FIM; Toumai 5D and CE proceeded greatly
- **Orthopedic:** Obtained NMPA, FDA and CE approval
- **Others:** Natural orifice and other products

## INVEST IN FOUNDATION TECHNOLOGIES



- Staff Costs – R&D team to cover core pipeline laparoscopic and other 4 flagship pipelines
- Cost of materials and consumables - 4 R&D centers, foundation tech platform and cutting-edge technology progression

# Agenda

Business highlights

Commercialization

Product pipeline update

Financial review

**Appendix**

# Financial Statement – Balance Sheet

Unit: RMB'000	31 Dec 2022	31 Dec 2021	Var.
<b>Non-current assets</b>			
Property, plant and equipment	491,576	361,000	36%
Intangible assets	7,053	3,074	129%
Goodwill	1,482	1,482	0%
Equity-accounted investees	175,154	123,537	42%
Financial assets measured at FVPL	109,602	136,586	-20%
Other non-current assets	46,436	71,979	-35%
<b>Total Non-current assets</b>	<b>831,303</b>	<b>697,658</b>	<b>19%</b>
<b>Current assets</b>			
Derivative financial assets	-	8,958	-100%
Inventories	250,478	109,881	128%
Trade and other receivables	93,725	24,955	276%
Pledged deposits	6,657	9,607	-31%
Cash and cash equivalents	747,962	1,940,825	-61%
<b>Total Current assets</b>	<b>1,098,822</b>	<b>2,094,226</b>	<b>-48%</b>
<b>Current liabilities</b>			
Trade and other payables	257,649	181,510	42%
Contract liabilities	8,489	-	-
Lease liabilities	58,218	52,863	10%
Provisions	958	96	898%
<b>Total Current liabilities</b>	<b>325,314</b>	<b>234,469</b>	<b>39%</b>
<b>Non-current liabilities</b>			
Interest-bearing borrowings	33,100	-	-
Contract liabilities	1,786	102	1651%
Lease liabilities	128,632	151,813	-15%
Deferred income	33,018	14,951	121%
Provisions	397	397	0%
<b>Total Non-current liabilities</b>	<b>196,933</b>	<b>167,263</b>	<b>18%</b>
<b>NET ASSETS</b>	<b>1,407,878</b>	<b>2,390,152</b>	<b>-41%</b>

Unit: RMB'000	31 Dec 2022	31 Dec 2021	Var.
<b>CAPITAL AND RESERVES</b>			
Share capital	958,594	958,594	0%
Reserves	459,064	1,434,548	-68%
<b>Total equity attributable to equity shareholders of the Company</b>	<b>1,417,658</b>	<b>2,393,142</b>	<b>-41%</b>
Non-controlling interests	(9,780)	(2,990)	227%
<b>TOTAL EQUITY</b>	<b>1,407,878</b>	<b>2,390,152</b>	<b>-41%</b>

# Financial Statement – P&L

Unit: RMB'000	2022	2021	Var.
<b>Revenue</b>	21,603	2,150	905%
<u>Cost of sales</u>	<u>(15,041)</u>	<u>(1,231)</u>	<u>1122%</u>
<b>Gross profit</b>	<b>6,562</b>	<b>919</b>	<b>614%</b>
Other net income	42,078	24,675	71%
Selling and marketing expenses	(184,042)	(79,188)	132%
Administrative expenses	(170,472)	(107,477)	59%
Research and development costs	(755,802)	(392,649)	92%
Net gain/(loss) on financial instruments carried at fair value through profit or loss (FVPL)	(26,984)	45,523	-159%
<u>Other operating costs</u>	<u>(6,603)</u>	<u>(43,498)</u>	<u>-85%</u>
<b>Loss from operations</b>	<b>(1,095,263)</b>	<b>(551,695)</b>	<b>99%</b>
Finance costs	(11,366)	(5,435)	109%
<u>Share of losses of equity-accounted investees</u>	<u>(39,655)</u>	<u>(27,377)</u>	<u>45%</u>
<b>Loss before taxation</b>	<b>(1,146,284)</b>	<b>(584,507)</b>	<b>96%</b>
Income tax	-	-	-
<u><b>Loss for the year</b></u>	<u><b>(1,146,284)</b></u>	<u><b>(584,507)</b></u>	<u><b>96%</b></u>
<b>Attributable to:</b>			
Equity shareholders of the Company	(1,139,806)	(582,921)	96%
Non-controlling interests	(6,478)	(1,586)	308%
<u><b>Loss for the year</b></u>	<u><b>(1,146,284)</b></u>	<u><b>(584,507)</b></u>	<u><b>96%</b></u>
<b>Loss per share (RMB)</b>			
Basic and diluted (RMB)	(1.19)	(0.63)	89%

# Disclaimer

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## **FORWARD-LOOKING STATEMENTS**

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