



丘鈇科技（集團）有限公司

Q Technology (Group) Company Limited

Stock Code 股份代號：1478

2021 Annual Results
Investor Presentation

21 March 2022



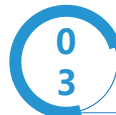
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-  **2021 Annual Results Business Review**
-  **2022 Outlook & Operating Objectives**
-  **Medium Term Plan**

»» Financial Summary



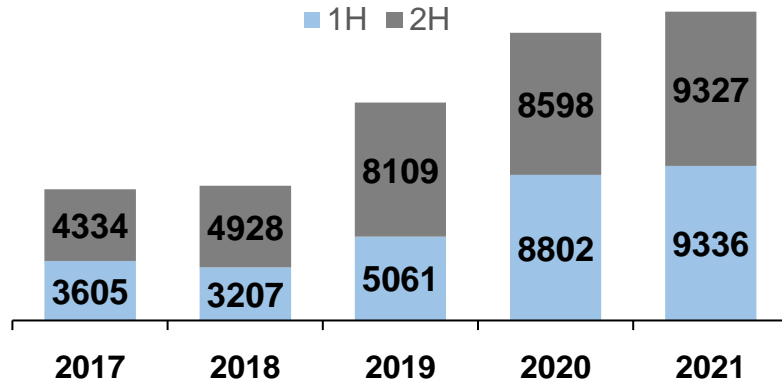
RMB K	Annual		YoY Change	2H	1H	HoH Change
	2021	2020		2021	2021	
Phone CCM Sales Volume	476,360K	392,027K	+21.5%	253,640K	222,720K	+13.9%
Other Fields CCM Sales Volume	2,970K	567K	+423.8%	1,887K	1,083K	+74.2%
FPM Sales Volume	114,582K	91,942K	+24.6%	59,157K	55,425K	+6.7%
Revenue	18,662,626	17,400,369	+7.3%	9,326,785	9,335,841	-0.1%
Gross Profit	1,761,982	1,770,585	-0.5%	679,217	1,082,765	-37.3%
Gross Profit Margin	9.4%	10.2%	-0.8 pts	7.3%	11.6%	-4.3 pts
OPEX Ratio	4.4%	4.4%	No Change	4.5%	4.4%	+0.1 pts
Net Profit/Loss	862,846	840,108	+2.7%	292,105	570,741	-48.8%
Net Profit Margin	4.6%	4.8%	-0.2 pts	3.1%	6.1%	-3.0 pts
Basic EPS	73.2分	71.9分	+1.8%	24.7 cents	48.5 cents	-49.1%
Operating Cash Flow	1,596,214	3,603,951	-55.7%	1,805,514	-209,300	N/A
ROE	18.3%	22.2%	-3.9 pts	N/A	N/A	N/A

»» Highlight 1 : Record Setting Revenue & Net Profit



Revenue in last 5 years

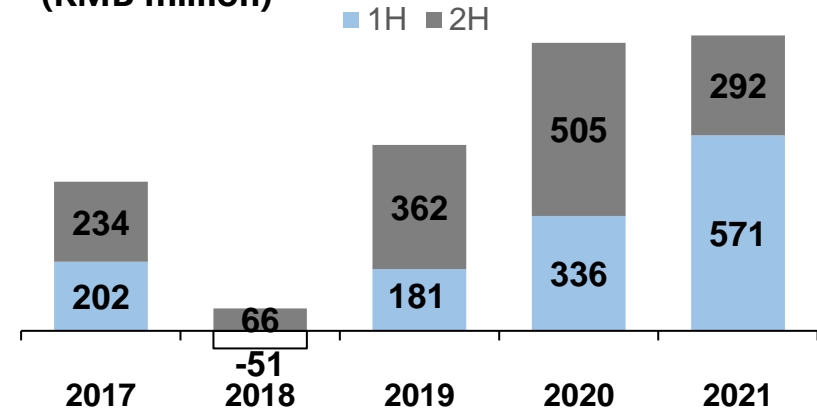
(RMB million)



2017-2021 Revenue CAGR 30.2%

Net profit in last 5 years

(RMB million)



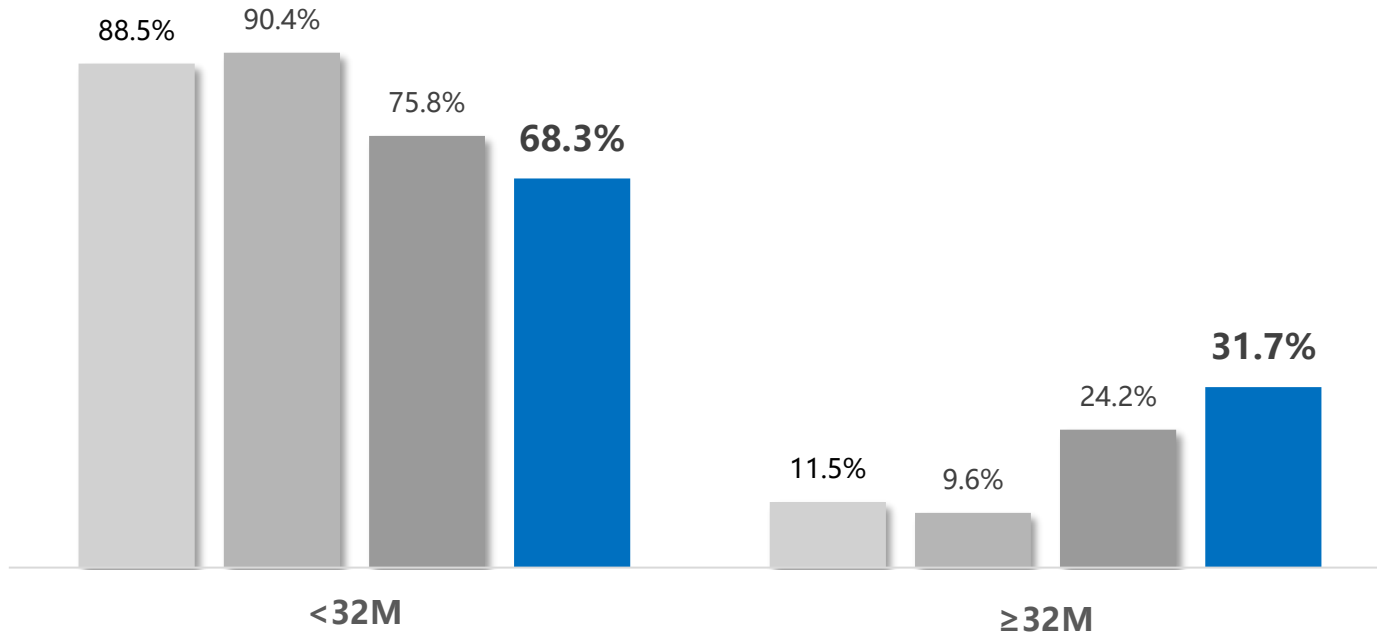
2017-2021 Net Profit CAGR 35.2%

Revenue grew approx. 7.3% year-on-year, mainly attributable to the market share gain in CCM business. CCM sales volume grew approx. 22.1% year-on-year; despite FPM sales volume grew approx. 24.6% in the same period, but average ASP declined approx. 36.0%, impacted the growth of the Group's revenue.

Net profit grew approx. 2.7%, lower than the growth of revenue mainly due to: 1) the loss attributable to the investment in associate Newmax Technology increased from approx. 22.89 million in 2021 to approx. 51.68 million; 2) Impacted by the decline of FPM revenue and GPM, which is affected by the severe competition, the overall GPM declined year-on-year.

Product Mix of CCM

■ 2018 ■ 2019 ■ 2020 ■ 2021



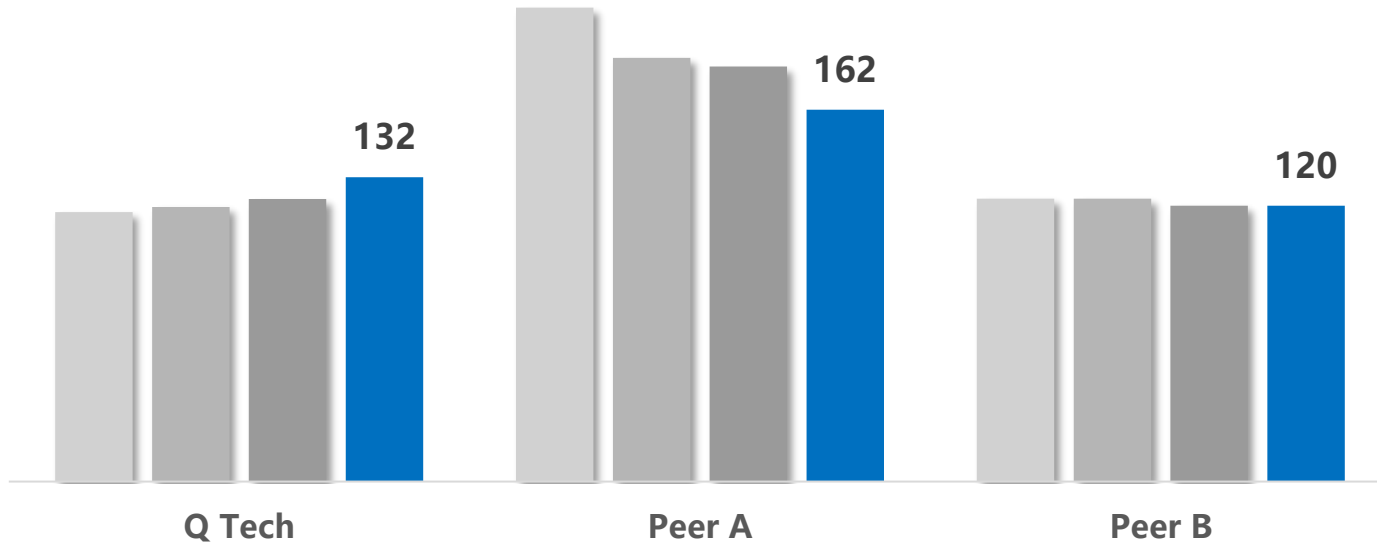
Products include 32M megapixels and above's single-camera modules, dual/multi-camera modules, 3D modules, car camera modules, and other camera modules

Highlight 3: Sales Volume of CCM Stepping up QoQ, Reflecting Market Shares Gain



Sales Volume of CCM (Unit: KK)

■ 1Q 2021 ■ 2Q 2021 ■ 3Q 2021 ■ 4Q 2021

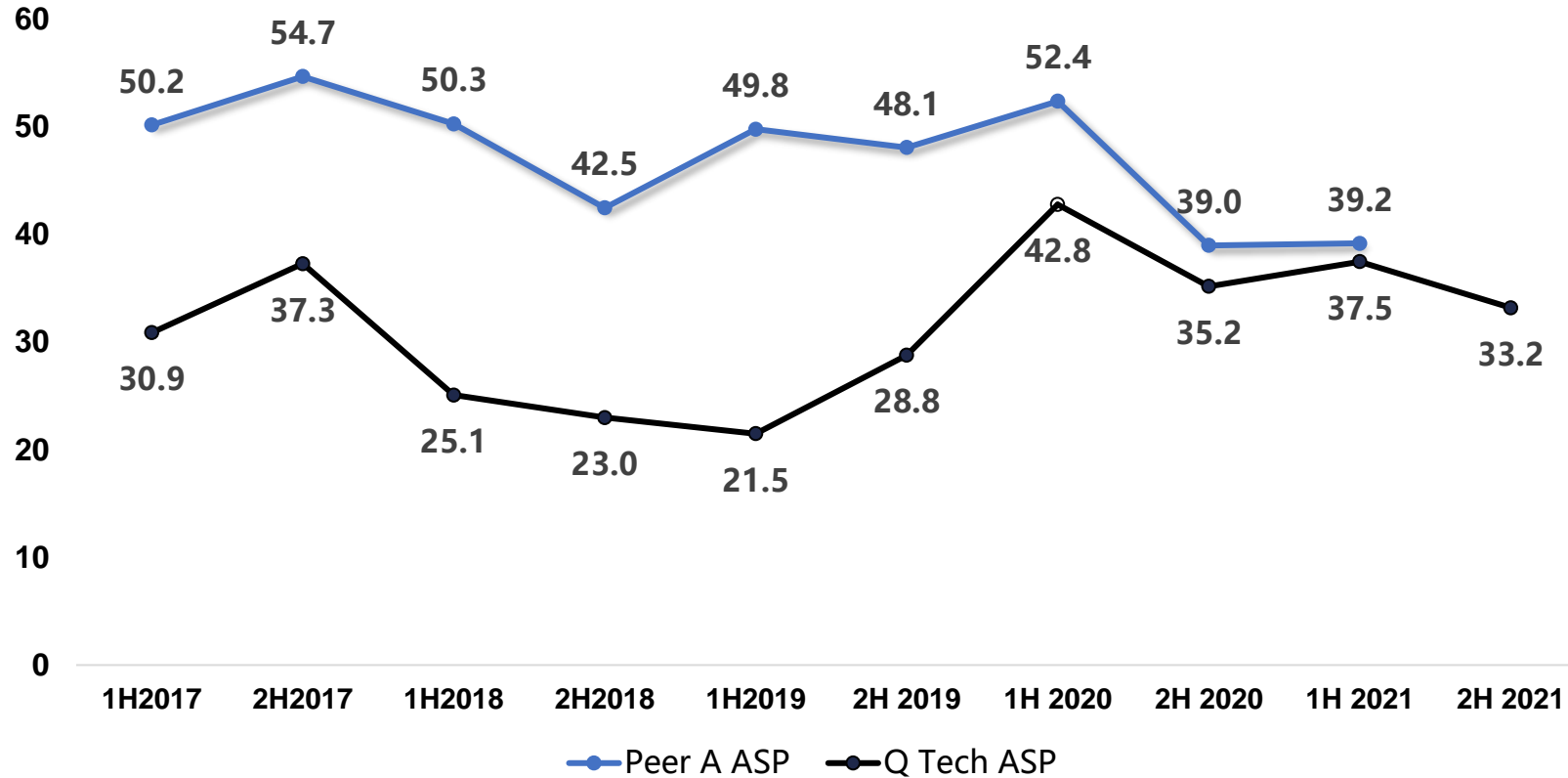


Sources: HKEX announcement for HK listco and industry information for A-Share listco.
For reference only

»» Highlight 4: Comparable CCM ASP with Industry Leader



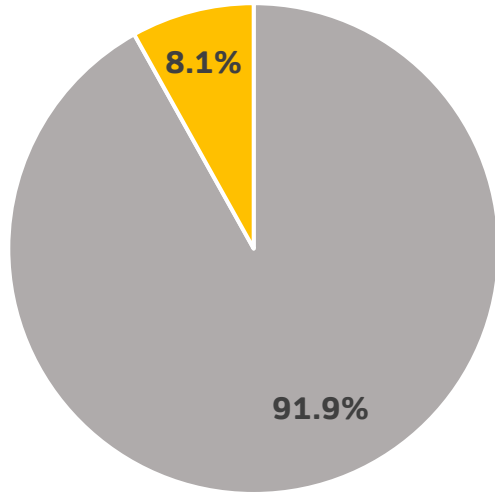
ASP (RMB)



Highlight 5: Mix Improvement with Higher Contribution from New Customers

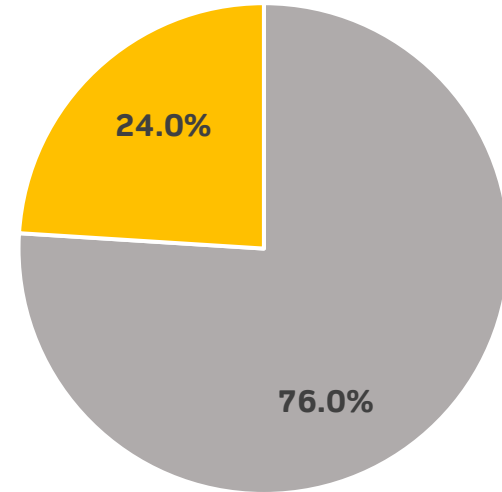


Customer Mix in 2020



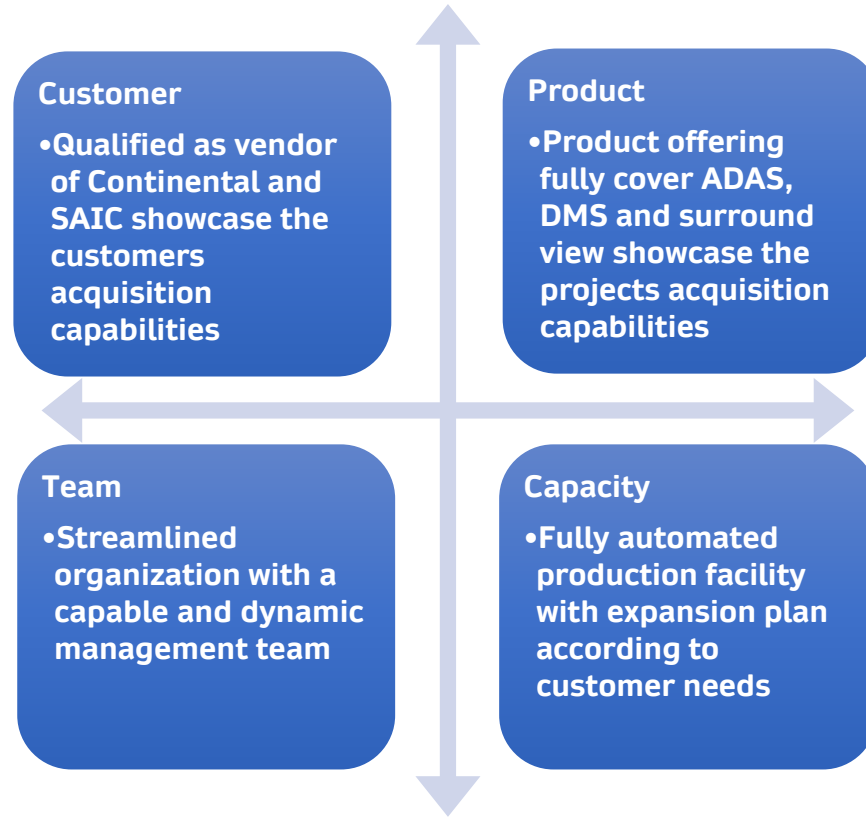
■ Top 4 Chinese Brands ■ Others

Customer Mix in 2021



■ Top 4 Chinese Brands ■ Others

»» Highlight 6: Solid Improvement in New Fields (Automotive)



Highlight 6: Solid Improvement in New Fields (Automotive)



Xpeng P5



Xpeng G9



ZEEKR 001



LYNK 09



SMART



VOYAH
H53



SAIC ES33



LOTUS
Lambda

Successful Projects

»» Highlight 6: Solid Improvement in New Fields (IoT)



DJI



Okii



Ecovacs,
Roborock



US AR
Glasses

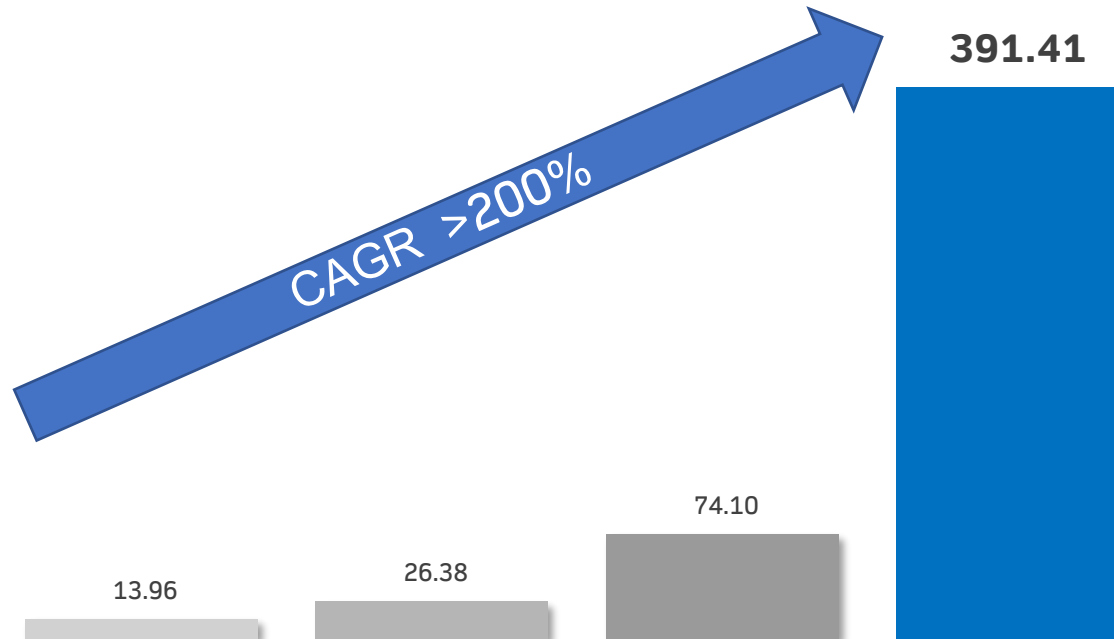
Successful Projects

»» Highlight 6: Solid Improvement in New Fields (cont')

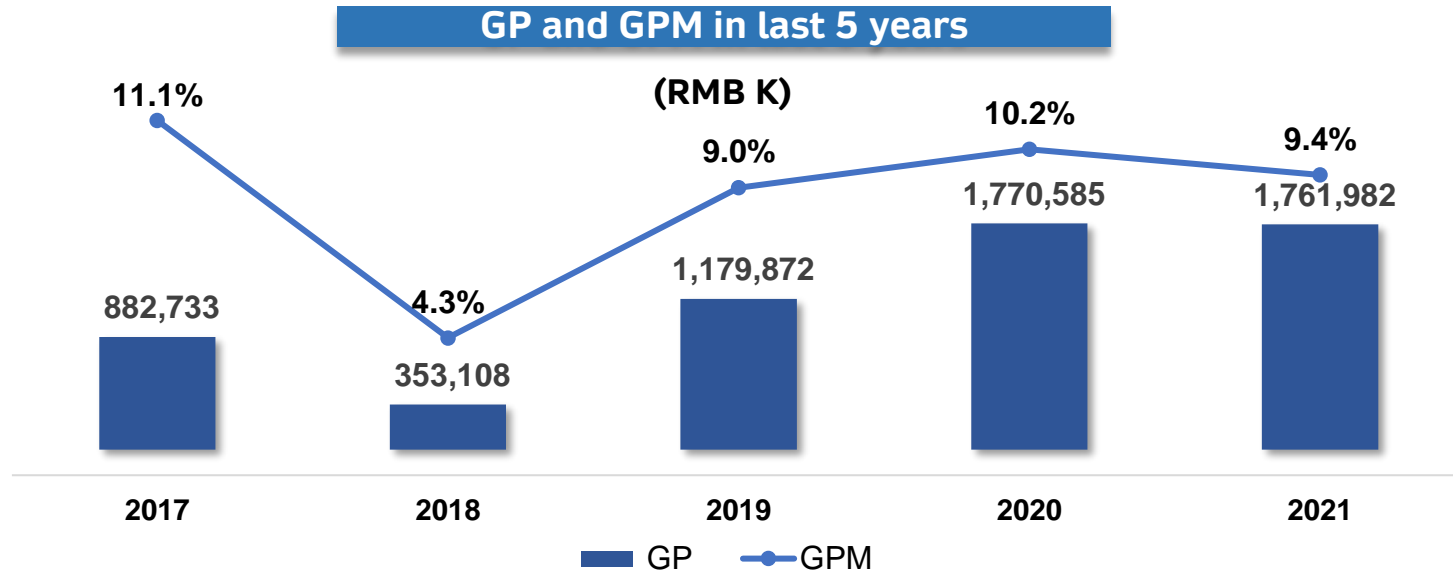


Revenue of other fields CCM (RMB M)

■ 2018 ■ 2019 ■ 2020 ■ 2021



»» Overview on GPM Pressure



Gross profit margin in 2021 was 9.4%, a slight decrease of 0.8 pts from 10.2% in 2020, mainly due to a decrease of 4.3 pts HoH to 7.3% in the second half of the year. Due to 1) Spreading of COVID-19 variants impacted the consumption sentiment which caused a worse-than-expected sales of high-end Android system smartphone. As an indirect consequence, the adoption of high-end camera modules declined and affect the ASP and the added value of CCM; 2) The Group's sales to a major overseas customer gradually increased, but it was still in the early stage with a competitive pricing. Weaker product mix affect the ASP and GPM temporarily; 3) CCM lacks innovation in current transition stage; 4) The specs upgrade of FPM has slowed down caused a bigger drop of ASP, and the intensified competition has an impact on the GPM; 5) The Group has strategically expanded the automotive and IoT business, but it is still in the early stage and not yet formed economies of scale; 6) The minimum wage and social security payment base of the Group's main operating base in China increased in 2H.

»» Expected Key Financial Results of QT China in 1Q 2022



Expected Key Financial Results of QT China in 1Q 2022 (Not reviewed and audited) (Extracted from the document submitted to SZ Exchange)			
(Unit: RMB Ten Thousand)	Jan to Mar 2021	Jan to Mar 2022	Changes
Revenue	379,300	350,000至400,000	-7.72% to +5.46%
Net profit attributable to shareholders of the parent company	23,400	9,000至12,000	-61.54% to -48.72%
Net profit attributable to shareholders of the parent company after deducting non-recurring gains and losses	20,200	8500至10,500	-57.92% to -48.02%

In 1Q 2022, the COVID-19 pandemic continued to recur, and the demand for high-end smartphone was still unsatisfactory, which intensified competition in the smartphone CCM market. In addition, QT China sales to a major overseas customer further increase with low-end products as majority which strategically place pressure on ASP and GPM and affected the overall performance of first quarter. At the same time, the company continues to double down efforts in automotive and IoT camera modules business expansion whereas the optimal production scale is not yet achieved in 1Q 2022, dragging down the overall profit margin.

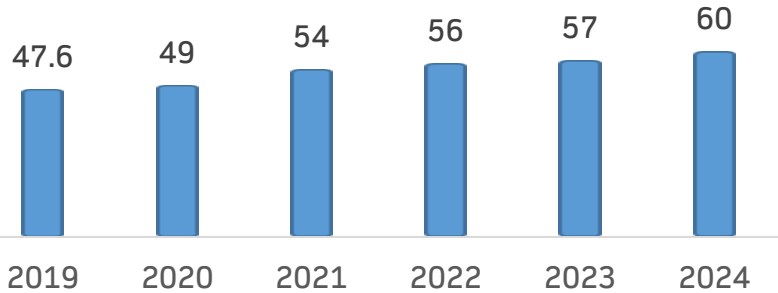


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»» Strong Demand in Three CCM Applications

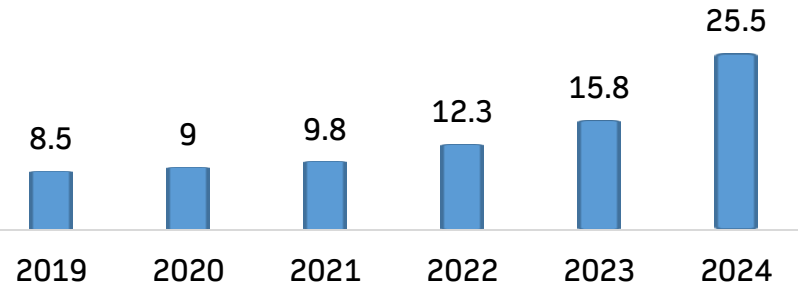
Mobile Phone CCM TAM in Unit Sales

(Unit: hundred million)



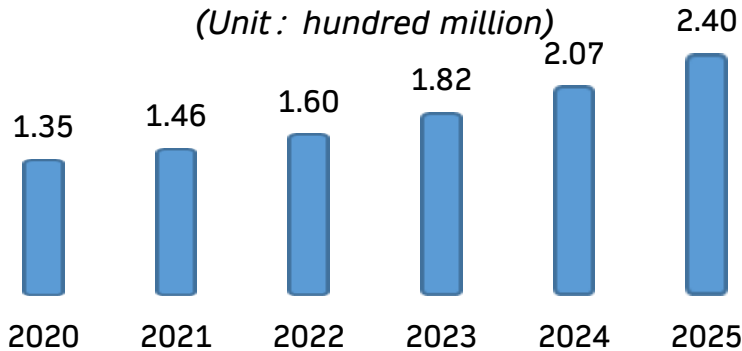
IoT CCM TAM in Unit Sales

(Unit: hundred million)



Auto CCM TAM in Unit Sales

(Unit: hundred million)



Market Size Forecast:

- TAM of CCM in mobile phone: > RMB 200 billion
- TAM of CCM in automotive: > RMB 100 billion
- TAM of CCM in IoT: > RMB 100 billion

R&D Focus of High-end Smartphone CCM

Benchmarking SLR Camera

Beyond Human Vision

Wide

Ultra-wide

Tele

OIS

Others

3D

Multi-spectral

Microscope

Large chip
Hi-Res

Variable aperture

Free form lens

Fish-eye Lens

Tele-scopic

Large Chip
Peri-scope

Contin-uous zoom

Lens shift

Micro gimble

Sensor shift

Super Resoluti-
on

Sensor AF

iToF

dToF

2022 H1

2022 H2

CIS

**Large CIS : 1/1.56", 1/1.3", 1/1.1"
Resolution : 50M, 64M, 108M, 200M**

CIS

**Large CIS : 1/1.3", 1/1.1", 1"
Resolution : 50M, 64M, 108M, 200M, 300M**

Lens

7P, 1G+6P, 8P

Lens

7P, 1G+6P, 8P, 1G+7P

VCM/OIS*

SMA OIS, Ball-type OIS, Suspension wire OIS, Sensor shift OIS, Dual-OIS, Micro Gimbal

VCM/OIS*

SMA OIS, Ball-type OIS, Suspension wire OIS, Sensor shift OIS, Dual OIS, Micro Gimbal, Extension cam

***Obtained the full licensing of a total of 151 camera modules technologies which are applied to standard electro-magnetic optical image stabilization (OIS) and closed loop actuator products from TDK Taiwan Corporation**

»» Q Tech Customer Strategy

vivo



OPPO



Lenovo



Honor



Protect high market share and focus on cooperation in high-end CCM and R&D in advance production knowhow

Xiaomi



Samsung



Huawei



Transsion



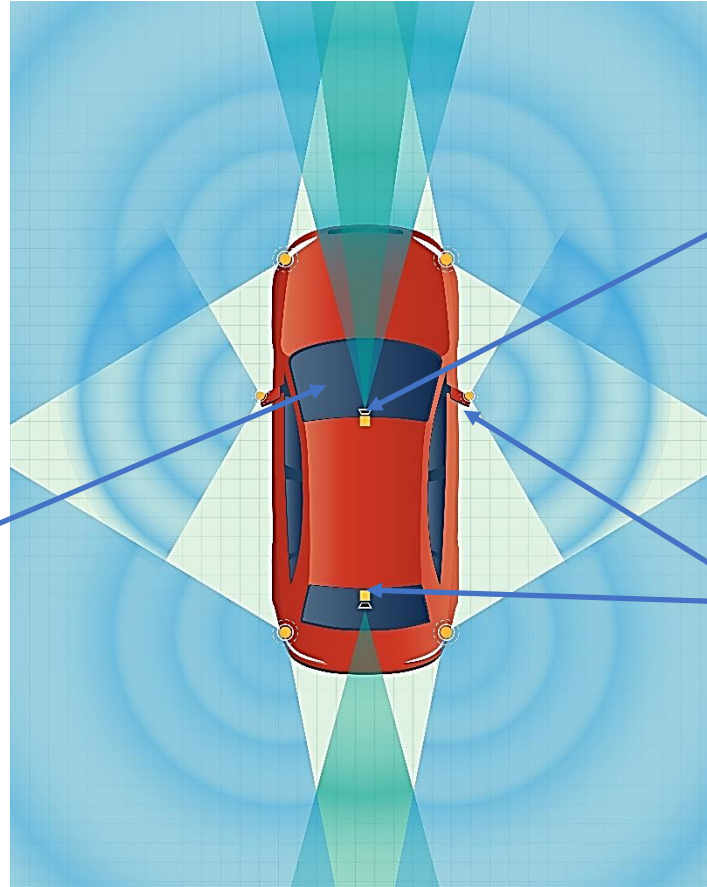
Strive for cooperation in full range products and overseas expansion strategy

»» Focus on Three Major Trends of Automotive CCM

02

DMS/OMS Camera

- ◆ Fatigue Tracking
- ◆ Sight Tracking
- ◆ Emotion Tracking
- ◆ FACE ID
- ◆ Behavior Monitoring



01

ADAS Camera

- ◆ Signal Light and Sign Recognition
- ◆ Pedestrian Recognition
- ◆ Collision Warning
- ◆ Lane Departure Warning
- ◆ AEB Security

03

Main Body Camera

- ◆ Surround View
- ◆ APA Auto Parking
- ◆ Blind Spot Detection
- ◆ Lane Change Assistance
- ◆ Electronic Rear-View Mirror

R&D Focus of Automotive CCM

Intelligent Driving

Production Process

In-Cabin (DMS/OMS)

ADAS

COB

CCC

2M Global Shutter

2M RGB IR

VGA ToF

5M Global Shutter+ RGB IR

3M APA/ Side cam

8M Front/ Side cam

15M Front cam

48M Pixel level image fusion

Miniaturize

Cost down

Miniaturize

»» Execution Plan of Automotive CCM BU in 2022



Scale Up Production + Capability Enhancement

**Focus on Tier-1
customer acquisition**

**Focus on qualification
with automakers**

**Offering semi-
system integrated
products**

Customer

Enhance R&D

**Enhance supply
chain management**

**Enhance project
management**

**Capacity
expansion, fully
automated
production**

**Secure M&A
opportunities
and improve
technology
capability**

Capability

»» Target Six Major IoT CCM Application Markets

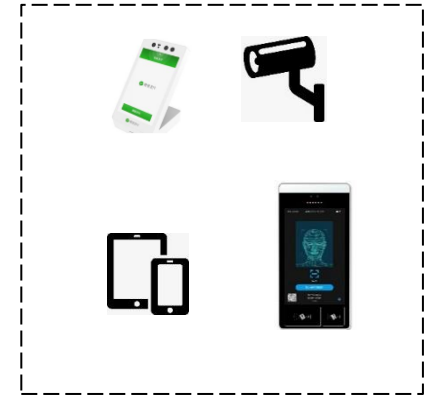
1 + 6 + X



**CCM,
Optical system
integrated products
Optical ODM products**



**Target six application areas
Drone/Wearables/Smart
Home/Smart
Panel/Laptop/AR.VR**



**Study and observe other
application areas**

R&D Focus of IoT Optics

Machine Vision

Imaging

Optomechanical System

ToF

Multi-
spectral

Large Chip
Size HD

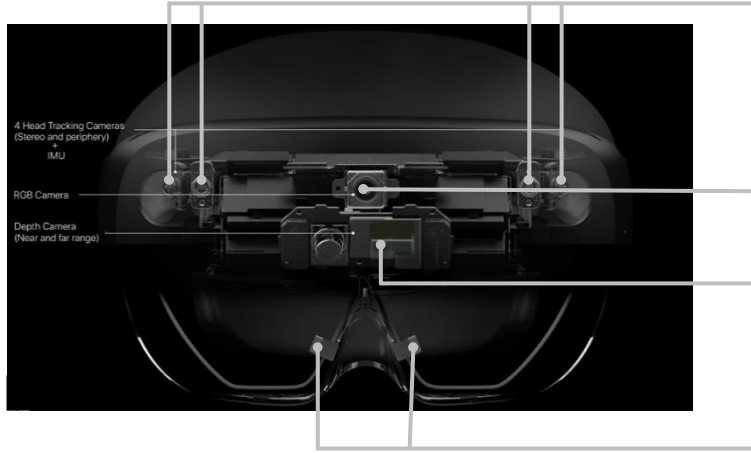
Tele
Periscope

Ultra
Macro
Lens

Pancake
Lens

Optical
Waveguide

»» Focus Market of 2022: AR/VR CCM



- **Head Tracking:**
IR camera*4

- **Video Camera:**
8MP

- **Depth:** 1MP ToF

- **Eye Tracking:**
IR camera*2 +
IR LED*12

Head Positioning: Algorithms get the position of the device (head) in the virtual environment
Action tracking: Get the handle LED identification point and position

Video Capture: Video capture and recording
Environment Capture: Obtain environmental scene information to realize mixed reality

Gesture Tracking: Track gestures and implement gesture interaction

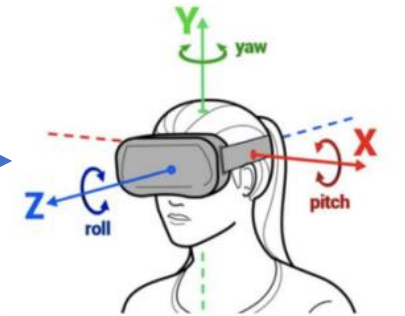
Field of View Conversion: Track the direction of eye movement and convert the content FOV
Eyeball Control: Tracking eye movements, the actual eye movement interaction



- IMU:
Accelerometer,
Gyroscope,
Magnetometer.



6DOF



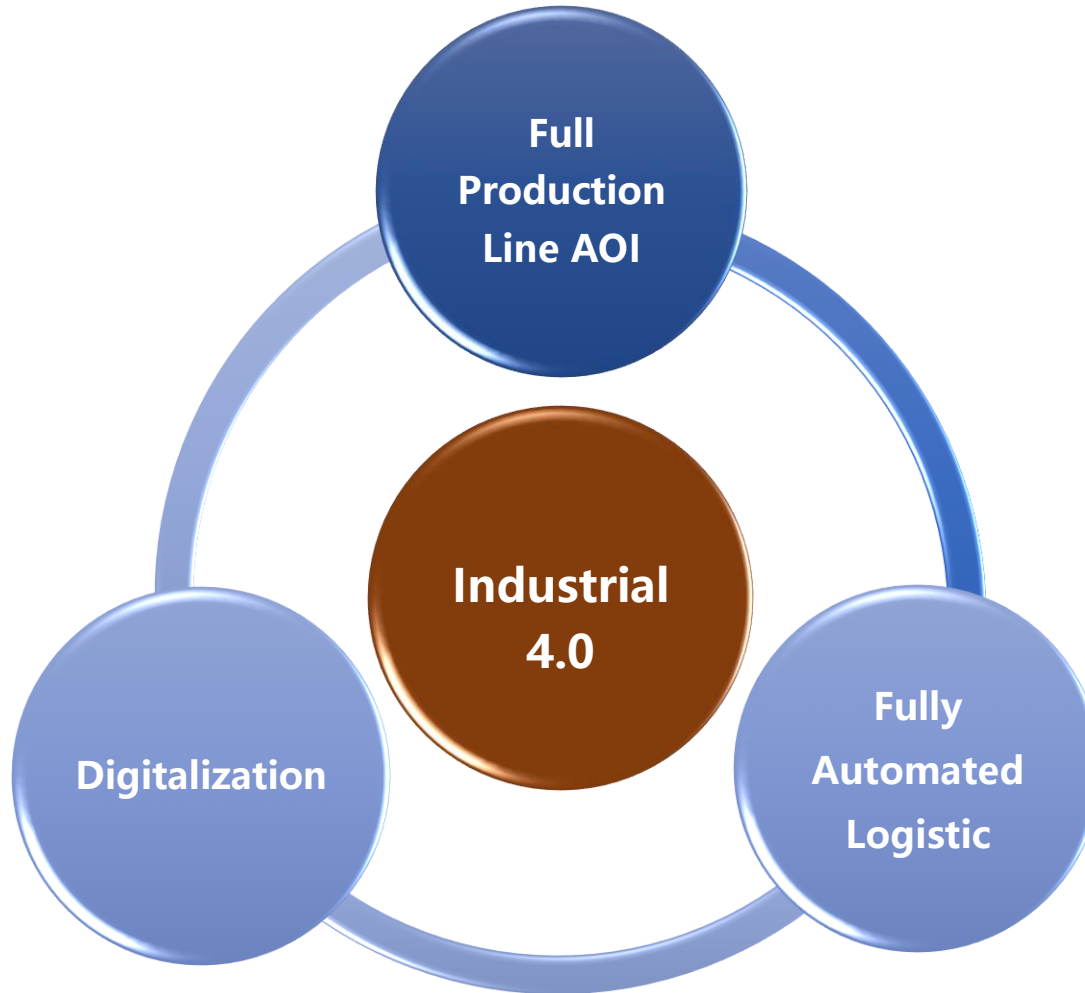
India Production Base

- **Company:** Kunshan Q Tech Microelectronics (India) PVT. Ltd
- **QT Team:** 200+ Engineers
- **Size of Plants:**
 - ① Phase 1: Covered area 5500m², Plot size 10500 sqm
 - ② Phase 2: Covered area 21800 sqm, Plot size 40000 sqm

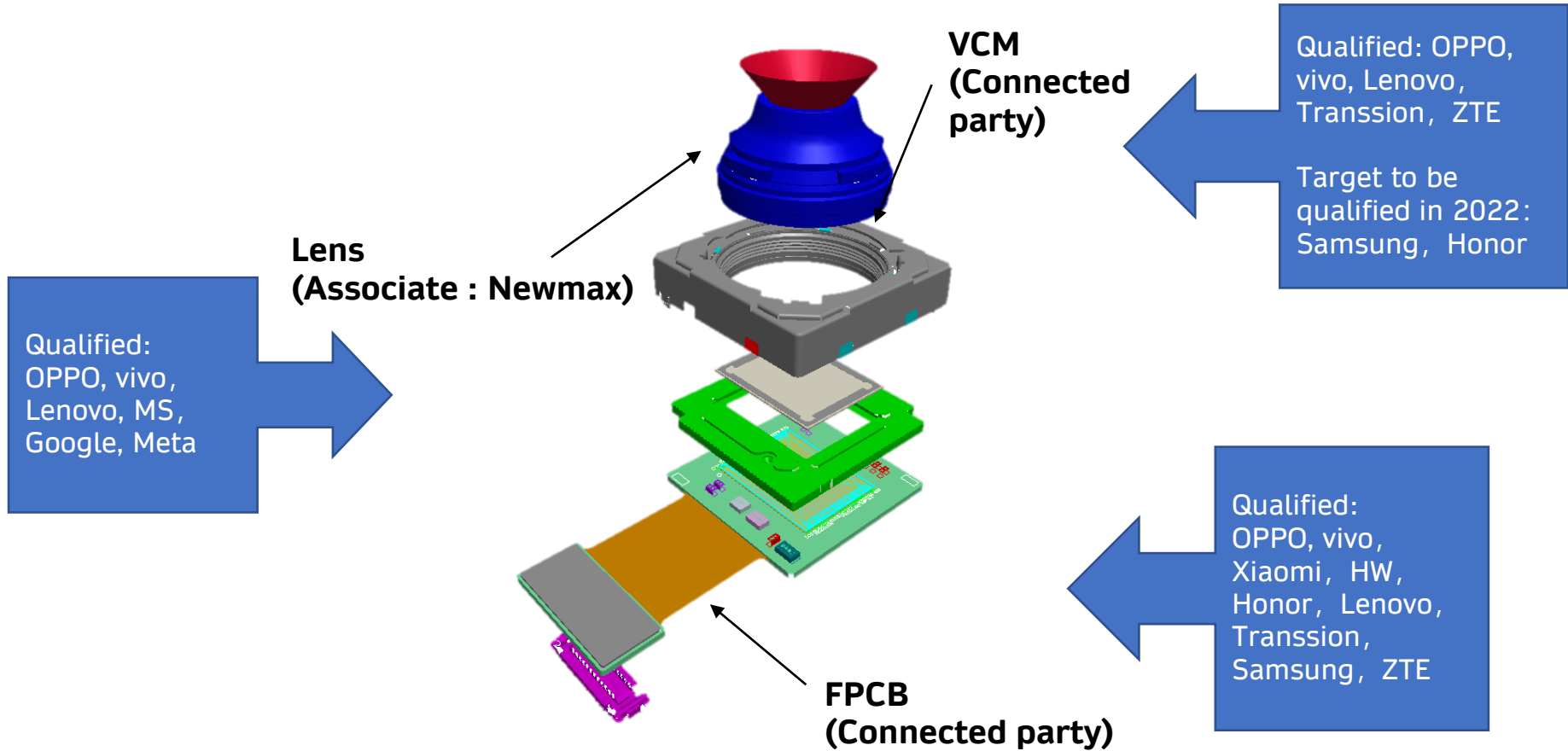
- **Phase 1 Capacity:** 5.5KK/month
- **Phase 2 Capacity:** put into production successively in 2H 2022, provide max. 8KK/month



»» Production Automation Continued



»» Improve the Quality of Vertical Integration



Goals of 2022



- Sales volume of mobile phone CCM achieve double digit growth YoY
- Sales volume of FPM grow not less than 20% YoY
- Sales volume of CCM in other fields grow not less than 100% YoY



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Five R&D Focus



User-experience Enhancement

- Large Chip Size
- Big Aperture
- OIS
- 3D
- Miniaturization
- Products for Differentiated Application

Design

- ◆ Structural Simulation
- ◆ Signal Simulation
- ◆ Heat Simulation
- ◆ Gluing Simulation
- ◆ Magnetic Simulation
- ◆ Digitalization design
- ◆ Simulation Lab

Material

- ◆ SFR Simulation
- ◆ High Intensity IR
- ◆ New UV Glue
- ◆ New Thermo Adhesive
- ◆ Adhesive Lab
- ◆ Material Resources Standard Database

Industrial

- ◆ Low Temperature PKG
- ◆ New DB Process
- ◆ Standardization of process data
- ◆ Large Chip Field Curvature Control

Software

- ◆ SI/PI Simulation
- ◆ AI Algorithm
- ◆ One-Stop Recording
- ◆ Calibration Tool for Interface Standardization
- ◆ Module for Hardware Design

Industrial 4.0

- ◆ Automation
- ◆ Digitalization
- ◆ Intelligent Production Machinery

Innovation, Expansion, Integration, Balance

New Process, New Technology, New Product
Driven by R&D and production innovation



Local and Overseas Production Bases

Steady expansion in production scale and product offering

Balance Strategy for Development and Risk
Optimize internal resource allocation and business structure



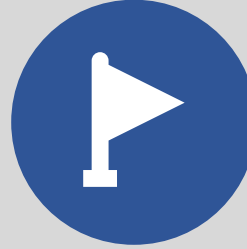
Vertical Integration

Accelerate integration of upstream and downstream supply chain to build the edge as total intelligent vision solution provider



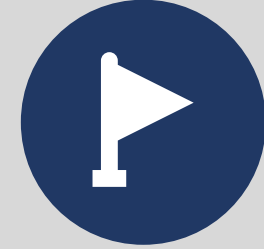
Industry Positioning

To rank Top 2 in terms of sales volume of CCM in China, Top 2 in terms of sales volume of FPM in China and comparable to the scale of major peer and Top 5 in terms of sales volume in automotive CCM



New Segments

To pursue progress in the new segments such as automotive, AR/VR, smart home and target a quarter of revenue contribution coming from these new segments



Vertical Integration

With module packaging and testing as the cornerstone, reach out and further integrate with upstream/downstream supply chain for the purpose to provide leading total intelligent vision system solution

- ✓ Top 2 in mobile phone CCM and FPM in terms of comprehensive assessment of sales volume, product mix and ASP in 2021
 - ✓ Automotive CCM projects and customers more than double in 2021
 - ✓ Revenue from CCM in other fields account for >2% in 2021



丘鈦科技(集團)有限公司

THANKS

给 机 器 带 来 光 明