KHVATEC Introduction 2022

KHVATEC®

www.khvatec.com

Disclaimer

This report is written based on objective standards and others,
but please note that it may contain certain expectation,
future prospects and subjective statements of the company.
Further, investors should understand that the information contained herein
may be subject different interpretation as a result of numerous factors such as, among others,
change in circumstances and application of different data collection standards.

Therefore, investors should not make investment decisions
solely relying on statements and information contained herein.
We hereby disclose that investors will be entirely responsible for their own investment decisions
into the company.

Contents

STAGE 1

Company Overview

1. Company Overview

KHVatec Co.,Ltd. was founded in 1992. The head office is located in Gumi (Korea), and the production factories are in China, Vietnam, and India, and is actively expanding overseas.

Company Profile

Name	• KHVatec Co.,Ltd.	**Location**	• Head office : Gumi, Republic of Korea
CEO	• Kwanghee Nam		• Plants : KHV Vietnam (Hanoi, Thái Nguyên, Bắc Ninh) / KHV Huizhou / KHV India / KHEltec (Ansan, Vietnam)
Founded	• 11/23/1992	**Industry**	• Foldable Hinge, Die-Casting / CNC / Pressed metal case, Sub-Assembly / FPCB

Headquarter (Seocho, Seoul)

- **Gross Floor Area 53,375ft²**
- **Management Support**

Gumi Head Office

KHVHanoi - Thái Nguyên / Bắc Ninh

KHVThái Nguyên - Thái Nguyên, Vietnam

KHVHZ - Huizhou, China

KHVIndia - Greater Noida, India

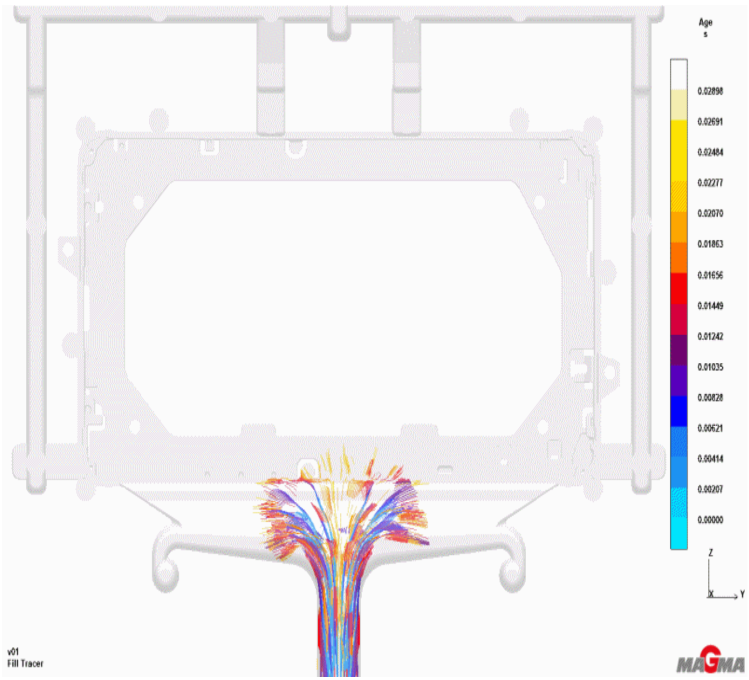
	Gumi Head Office	KHVHanoi	KHVThái Nguyên	KHVHZ	KHVIndia
Land	569,331ft²	533,747ft²	640,497ft²	853,996ft²	818,413ft²
GFA	306,015ft²	407,427ft²	355,831ft²	711,663ft²	231,290ft²

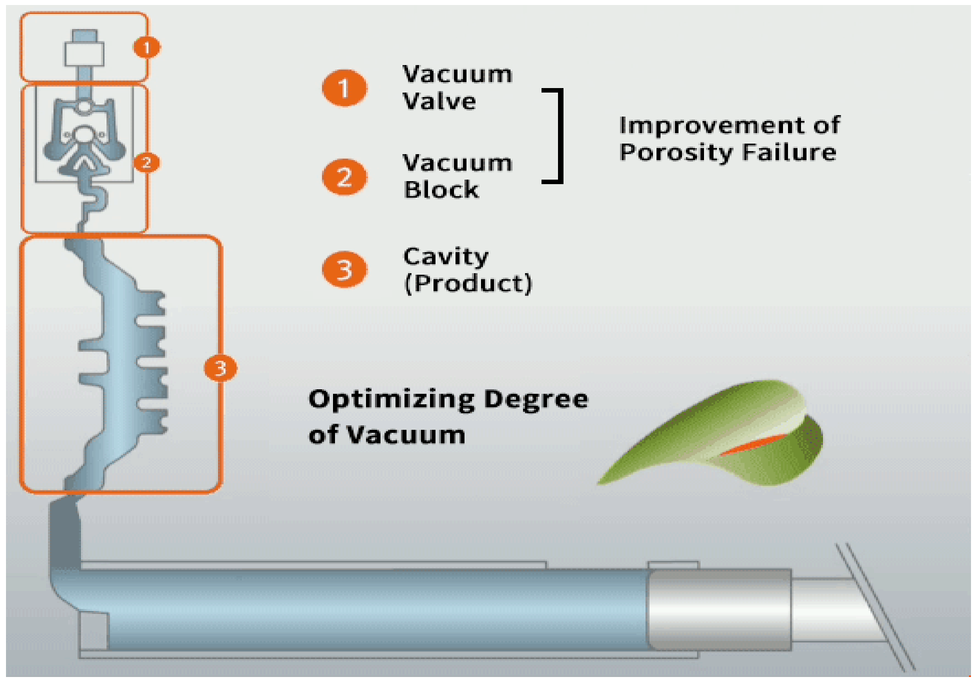
2. Core Technology

Die-Casting is KHVatec's core metal fabrication technology. KHV has various advanced technologies such as Anodizable Die-Casting, Vacuum Die-Casting, and Insert Die-Casting (IDC).

Die-Casting

- KHV's metal fabrication technology using casting method.
- Is used for smartphone exterior case and internal bracket.
- KHV holds advanced Die-Casting technologies such as Anodizable Die-Casting (ADC), Vacuum Die-Casting and Insert Die-Casting (IDC).

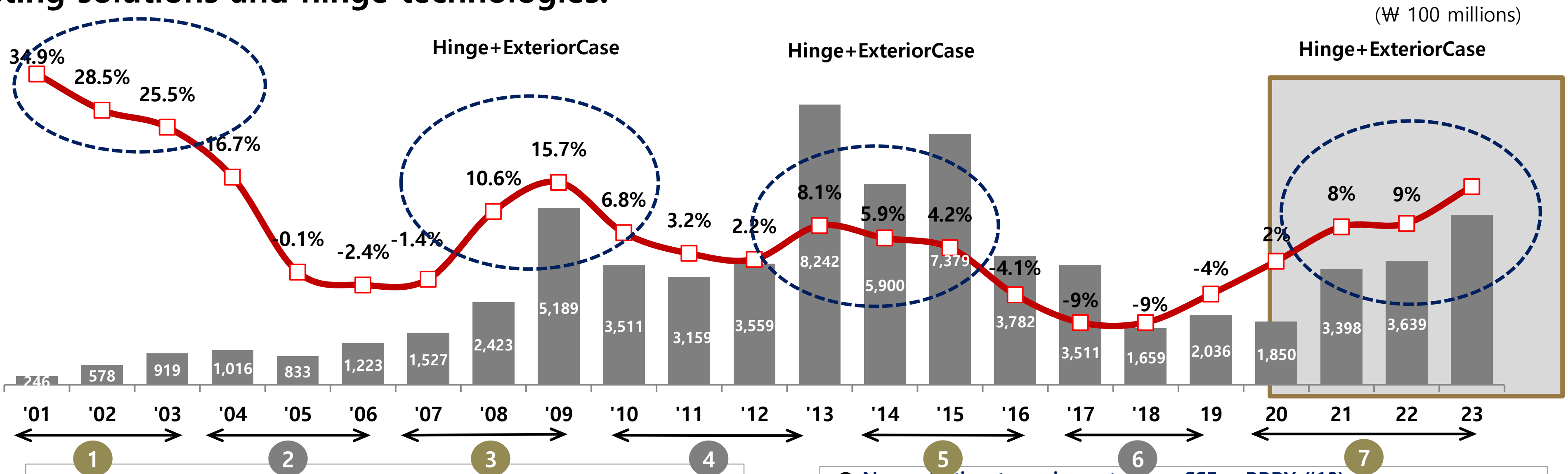




※ Vacuum Die-Casting

3. KHV History & Strategy

KHV continuously grew until facing business structural issues in 2016, and recently started re-taking off through restructuring Tianjin corporate and developing numerous advanced metal casting solutions and hinge technologies.



1
- No competition due to provider advantaged period : Metal demand>supply
- Beginning stage of mobile phone industry : SSE oriented business

2
- Appearance of competitors (SJ, Daejung Mtec, etc.)
- Decrease in manufacturing competitiveness due to change of material (Zn → Mg)

3
- Main customer shift : SSE → Nokia ('07) : hinge & MG exterior
- Tianjin corporate starts mass production ('07)
- Success of Nokia N97 ('09) : Foxconn Tilt module got eliminated (exclusive supply)
- Maintains high operating profit ratio through advanced hinge technology (average OP 12%)

4
- OS strategy change of Nokia : Symbian → W/M, OS (Apple, Android)
- Form factor shift : Slide / Tilt → Touch Bar (order sharply drops)
- Main customer shift : Nokia → SSE ('10) : MG / AL internal
- Huizhou and KHEltec were established ('10년), ('11년)

5
- New addition to main customer : SSE + BBRY ('13)
- Wins VASA contract ('13,'15) : Blackberry Q10, PRIV
- Internalization of metal exterior technology : Pantech Iron, SSE Note, A / J series
  - Full CNC, ALP (Anodizing Look Painting)

6
- Completes metal exterior internalization of SSE ('16~'18)
  - sets up 20,000 CNC in Vietnam / Reduction in Die-Casting sales due to the internalization
- BBRY was sold to TCL due to weak competitiveness ('17)
- World's first Anodizable Die-Casting (ADC) → deficit occurs due to low yield
- Successful launch of Insert D/C (IDC) and hinge mechanism (foldable, camera)

7
Successful turnaround through advanced metal fabrication technologies such as foldable hinge technology and EV metal case solution

STAGE 2

Prospects and Trends

1. TREND

In the smartphone industry, premium markets such as foldable phones are expected to grow, while the mid-low priced market is stagnant. The electric vehicle industry is continuing to grow, and KHVATEC has a solution accordingly.

Technology / Trend

① Foldable Smartphone

- Foldable phone sales have been growing for five consecutive years since 2019
- Samsung Electronics and other set companies such as OVX and Google are also increasing their foldable shipments
- Expected to grow to 19.6 million in 2023 from about 12.5 million in 2022 **(57% Increase)** (counterpoint, kiwoon)

※ IDC Estimate Foldable Smartphone Growth : 22 million sets in 2023, **50% year-on-year growth**

② Limited growth of mid-low end models

- Limited increase in mid-low end smartphone shipments in 2023
- Global core manufacturing facilities are moving from China/Vietnam **to India**
- Increasing need for **thin-film molding technology**

③ Electric Vehicles

- EV shipments increase expected to continue in 2023
- The shortage of EV batteries is expected to continue until 2030
- Battery-Related Stocks' Earnings Surprise Continues Through Q1 2023

KHVATEC Solution

Foldable Hinge

Internal Bracket

EV Metal Case

2. Foldable Phone

A hinge is the key component for foldable phones, and KHVATEC has strengths in hinge development.

Foldable Smartphone

- Foldable smartphones are expected to grow to 19.6 million units in 2023 (Kiwoom Securities, February 2023)
- Providing exclusively for Galaxy Fold, A80, Z Flip and Z Fold 1~4
- Firm technical barriers to entry, and KHVATEC has expertise in hinge development and production

Fold type (2005)

- Mobile phone launches, demand goes up
- Numerous competitors exist
- High profit due to the beginning stage of the market

Fold & Slide (2011)

- Hinge's golden days
- Exclusively provides for Nokia tilt
- smartphone appears, fold and slide phones decline

Foldable Hinge (2019-21)

- Exclusive hinge supply for Z Fold 1~4
- Exclusive hinge supply for Galaxy A80
- Exclusive hinge supply for Z Flip 1~4

Rollable, Expandable (What's next?)

- Launch of Z Fold / Flip 5
- Able to develop various designs of the hinge
- Expects to enter the overseas customer markets

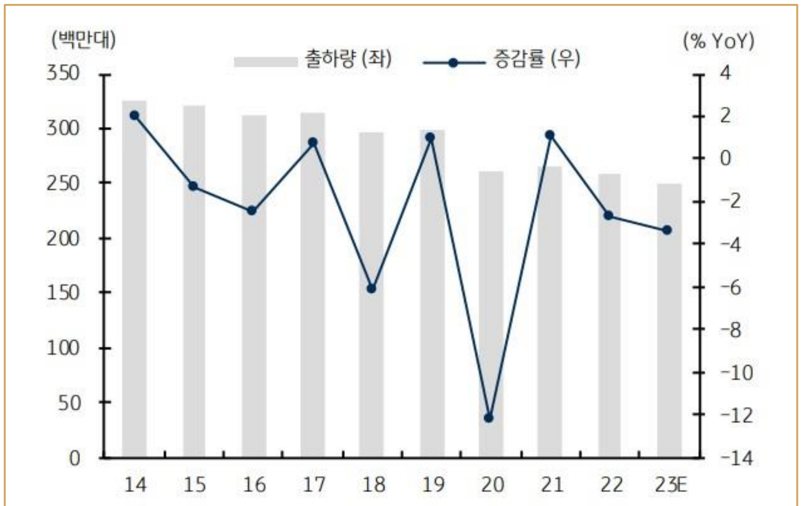
3. Mid-low priced market: Creating new added value, Thin-Film Bracket

KHVATEC will be securing the market share of the customers through creating new added values such as thin-film brackets, despite the customer's limited increase in the mid-low priced market

<u>Increase in smartphone shipments in 2023 is limited, But…</u>

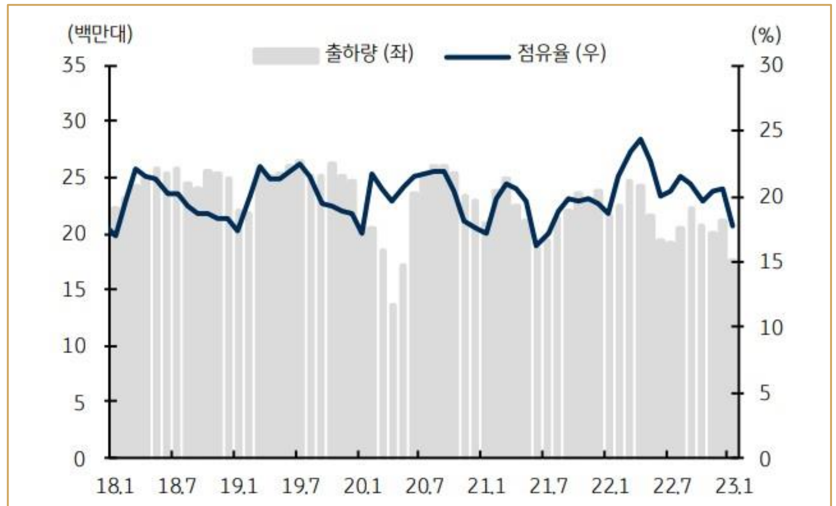
- Smartphone shipments are expected to decrease in 2023 compared to last year
- Key global manufacturing facilities are being relocated recently from Vietnam/China to India, and KHVATEC has been operating an Indian subsidiary since 2019
- KHVATEC is expected to drive share gains by creating new added values such as **<u>thin-film brackets and the growth of Indian subsidiaries</u>**

Smartphone Shipments Forecast for Samsung Electronics



자료: Counterpoint Research, KB증권 추정

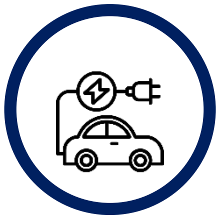
Monthly Smartphone Shipments for Samsung Electronics



자료: Counterpoint Research, KB증권

4. Electric Vehicles + Electrical components of automobile

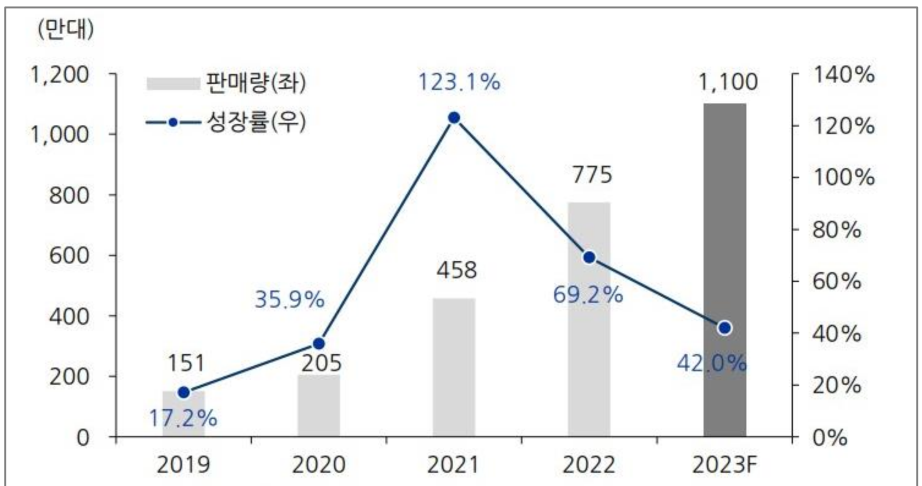
KHVATEC will be creating opportunities in the EV and electrical components of automobile industries through vacuum die-casting, CNC precision processing, and thin-film technology, with the rapid growth of the EV industries since 2021



Electric Vehicles + Electrical components of automobile

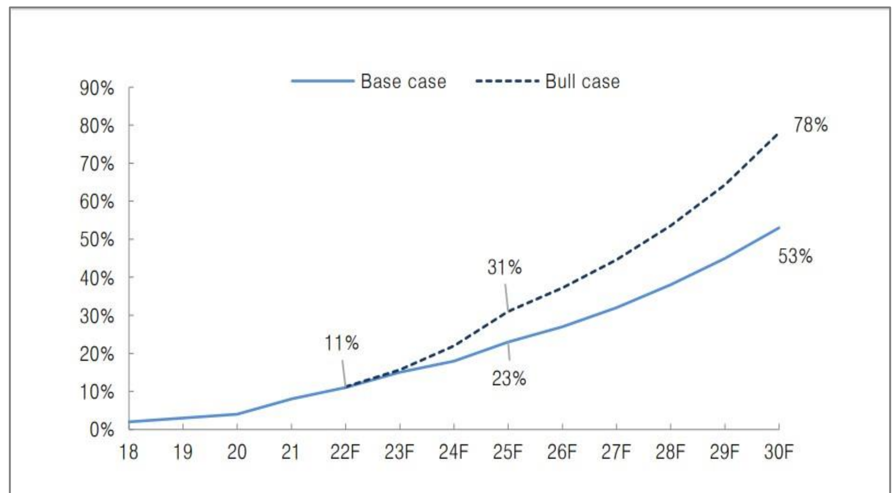
- Global yearly EV sales will be over 10 million in 2023, **estimating 42% Y/Y growth**
- EV supply demand is expected to grow steadily despite the aggressive capacity expansion of EV battery set makers
- KHVATEC has various solutions related to vacuum die-casting, pore management, heat dissipation design, and material technology in the battery metal case sector
- **Target to be No. 1 in the Total Display Panel (TDP) of the EV market using KHVATEC's thin-film molding technology**

Global Electric Vehicle Sales Trends



자료: Marklines, 유진투자증권

Mid-Long Term EV Penetration Rate Forecast



자료: 대신증권 Research Center

5. ESG Management

As the importance of ESG management continues to grow, KHVATEC declared the introduction of ESG management in 2021 and is practicing reducing carbon emissions, contributing to the community, and improving governance

Introducing KHV ESG Management

- ESG: The philosophy that sustainable development is possible only when transparent management, such as eco-friendly, socially responsible management, and improved governance are considered
- KHVATEC declared the introduction of ESG management in 2021
- KHVATEC will continue to strengthen ESG management, as ESG is expected to be more important in 2023
- **ESG secretariat launches to accelerate ESG management**

Key ESG Activities of KHVATEC

- ESG evaluation grade B+ by the Korea ESG standards institute in 2022 (8^{th} place in KOSDAQ)
- Cash dividends to enhance shareholder value (300 won per share, 27% dividend payout ratio)
- KHV-ESG's environmental sector sets key goals and disclosure of performance (website)
- Electronic voting system at regular shareholders' meetings for 5 consecutive years (2019~2023)
- **Attending regional sharing events for Korean and overseas corporations / Sponsoring goods**
- Turkiye-Syria earthquake emergency relief sponsorship (100 million won)

Key ESG Objectives of KHVATEC in 2023

구분	내용
Goal	**Achieve B+ for KCGS ESG evaluation**
E	▪ Reducing greenhouse gas emissions / using renewable energy (electricity)
S	▪ Strengthening safety management in factories following the introduction of the Serious Accident Punishment Act ▪ Community contribution (sharing culture and the arts, helping the needy, etc)
G	▪ Strengthening the management of the board of directors and communication with shareholders

STAGE 3

Financial Information

Financial Data

Sales in the fourth quarter of 2022 recorded 65.1 billion won and operating profit of 6.3 billion won.

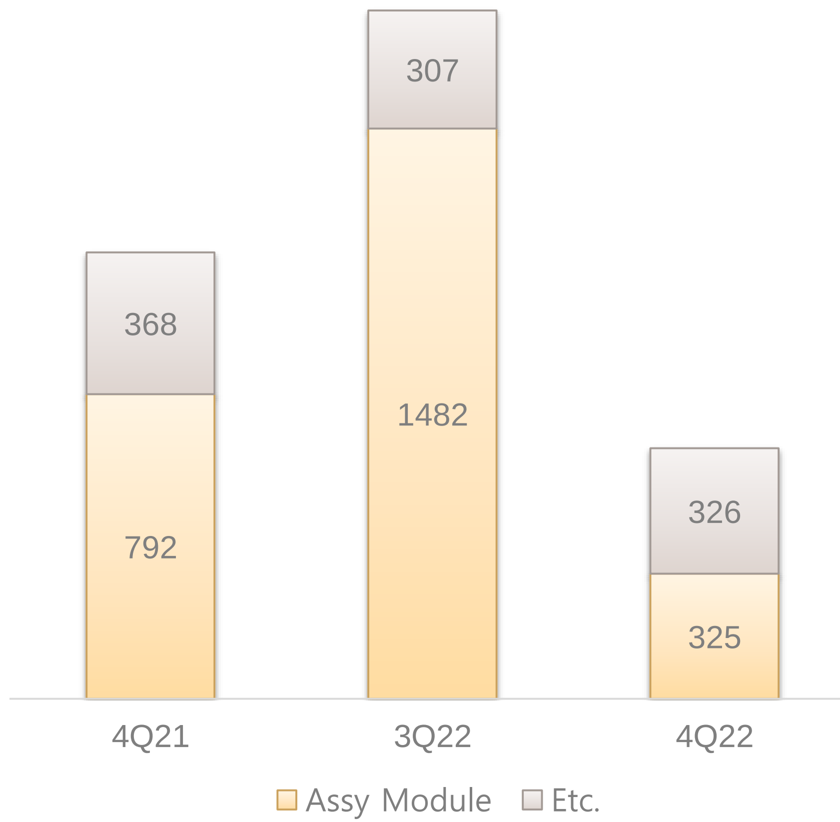
Income statement

(₩ 100 millions)

	4Q22	3Q22	QoQ	4Q21	YoY
Sales	651	1,789	-63.6%	1,158	-43.8%
Cost of sales	548	1,464	-62.6%	905	-39.4%
Gross profit	103	325	-68.3%	253	-59.3%
Selling and administrative expense	62	128	-51.6%	144	-56.9%
Operating profit	41	197	-79.2%	109	-62.4%
Net profit	-175	323	-154.2%	137	-227.7%
Gross profit ratio	15.8%	18.2%	-2.3%	21.8%	-6.0%
Operating profit ratio	6.3%	11.0%	-4.7%	9.4%	-3.1%
Net profit ratio	-26.9%	18.1%	-44.9%	11.8%	-38.7%

Sales by items

(₩ 100 millions)



Financial Data

The liquidity ratio in the fourth quarter of 2022 was 160.2%, gotten higher from the 3Q22, and the debt ratio was 50.3%, gotten lower from 3Q22

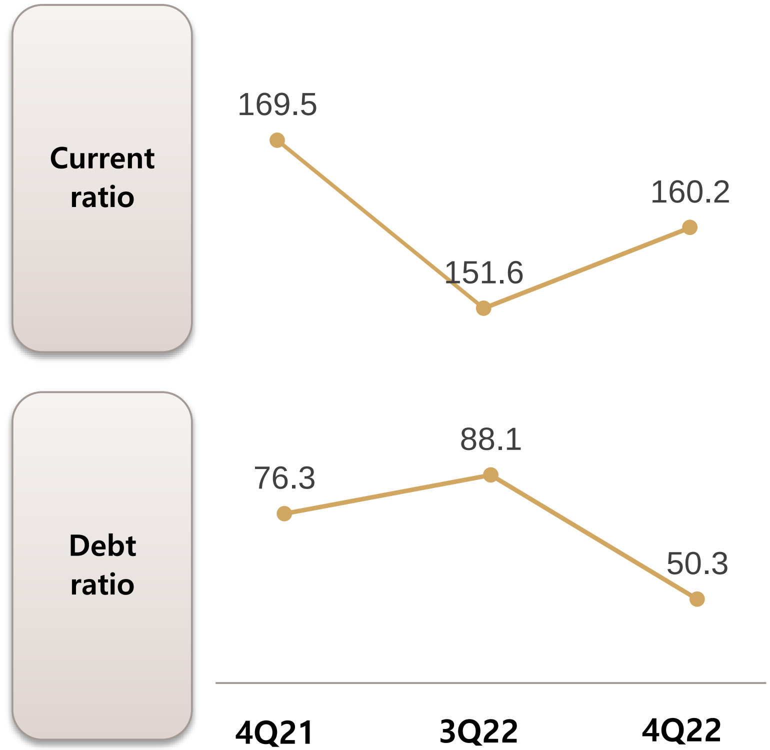
Balance sheet

(₩ 100 millions)

	4Q22	3Q22	QoQ	4Q21	YoY
Total assets	3,448	4,449	-22.5%	3,819	-9.7%
Current asset	1,820	2,643	-31.1%	2,004	-9.2%
Non-current assets	1,628	1,806	-9.9%	1,815	-10.3%
Total Liabilities	1,154	1,915	-39.7%	1,653	-30.2%
Current liabilities	1136	1743	-34.8%	1,182	-3.9%
Non-current liabilities	19	172	-89.0%	470	-96.0%
Capital	2,294	2,174	5.5%	2,166	5.9%
Accumulated earnings	1,679	1,859	-9.7%	1,504	11.6%

Financial ratio

(%)



Financial Data

KHVATEC sales and operating profit increased for three consecutive years through active expansion of its overseas subsidiaries, and debt and current ratios are under stable management

Financial Statements (Consolidated)

Income Statement

(₩ 100millions)

구분	2020	2021	2022
Sales	1,850	3,398	**3,639**
Operating Profit	35	269	**325**
Operating Profit Ration (%)	1.9	7.9	**8.9**
EBITDA	181	412	**502**
EBITDA(%)	9.8	12.1	**13.8**
Net Income Before Income Tax Deduction	-149	370	**326**
Net Profit	-138	331	**250**

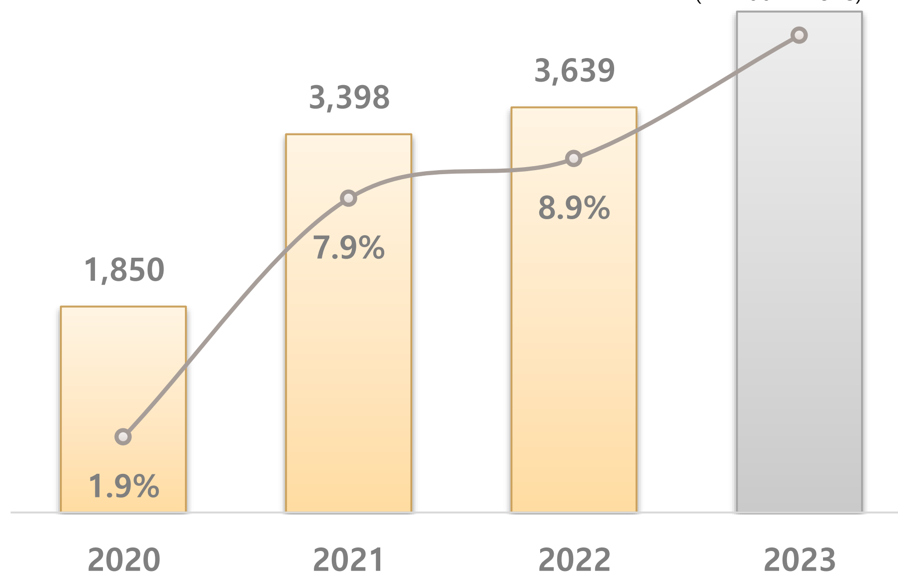
Statement of Financial Position

(₩ 100millions)

구분	2020	2021	2022
Total Assets	2,949	3,819	**3,448**
Total Capital	1,752	2,166	**2,294**
Total Liabilities	1,197	1,653	**1,154**
Current Ratio	163%	170%	**160%**
Debt Ratio	68%	76%	**54%**

Trends and Forecasts of Sales and Operating Profit Rates

(₩ 100millions)



- Foldable smartphones in 2023 are expected to see an increase in shipments compared to the previous year
- Shipments of local Chinese companies' foldable phones are also steadily increasing
- Thin-film brackets are expected to be equipped in 2023, despite a decrease in smartphone shipments
- Maintaining financial stability through efficient financial structuring

Thank you