

# » Business Review January–June 2023

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**Terrafame**



» A drop in the nickel sulphate market in China decreased Terrafame's operating result while basic production remained at a good level

Net sales  
H1 2023

**EUR 264.1 million**

H1 2022 259.2 MEUR

Net sales of battery  
chemicals business

**EUR 98.3 million**

H1 2022 97.4 MEUR

**38%** of total net sales

EBITDA  
H1 2023

**EUR 24.8 million**

H1 2022 60.1 MEUR

Operating result  
H1 2023

**EUR -5.3 million**

H1 2022 31.4 MEUR



## »» Key themes in the review period

- In Q1 2023, sales of electric passenger cars in China dropped by more than 30% compared to Q4 2022. As a result, inventories increased in the electric car supply chain.
  - In Q2 2023, the producers of cathode active materials (pCAM/CAM) restricted their own production to reduce inventories, which significantly cut demand for battery chemicals and lowered prices.
  - Due to the weak market situation, Terrafame decided to stop production at its battery chemicals plant in June–July, following a scheduled maintenance shutdown in May.
- In June 2023, Fortum and Terrafame have signed an agreement for an experimental project in which metals recovered from the black mass of EV batteries by Fortum will be utilised in Terrafame’s battery chemicals production.
- The preparations to start uranium recovery have progressed as planned, and recruitment for key personnel continued during Q2 2023.
- In June, Terrafame agreed with Finnish Minerals Group (FMG) on a new revolving credit facility of EUR 40 million. In addition, Terrafame’s minority shareholders, the Galena funds managed by Trafigura and Sampo plc, exercised their option rights to subscribe for new shares in Terrafame, totalling EUR 32.6 million.

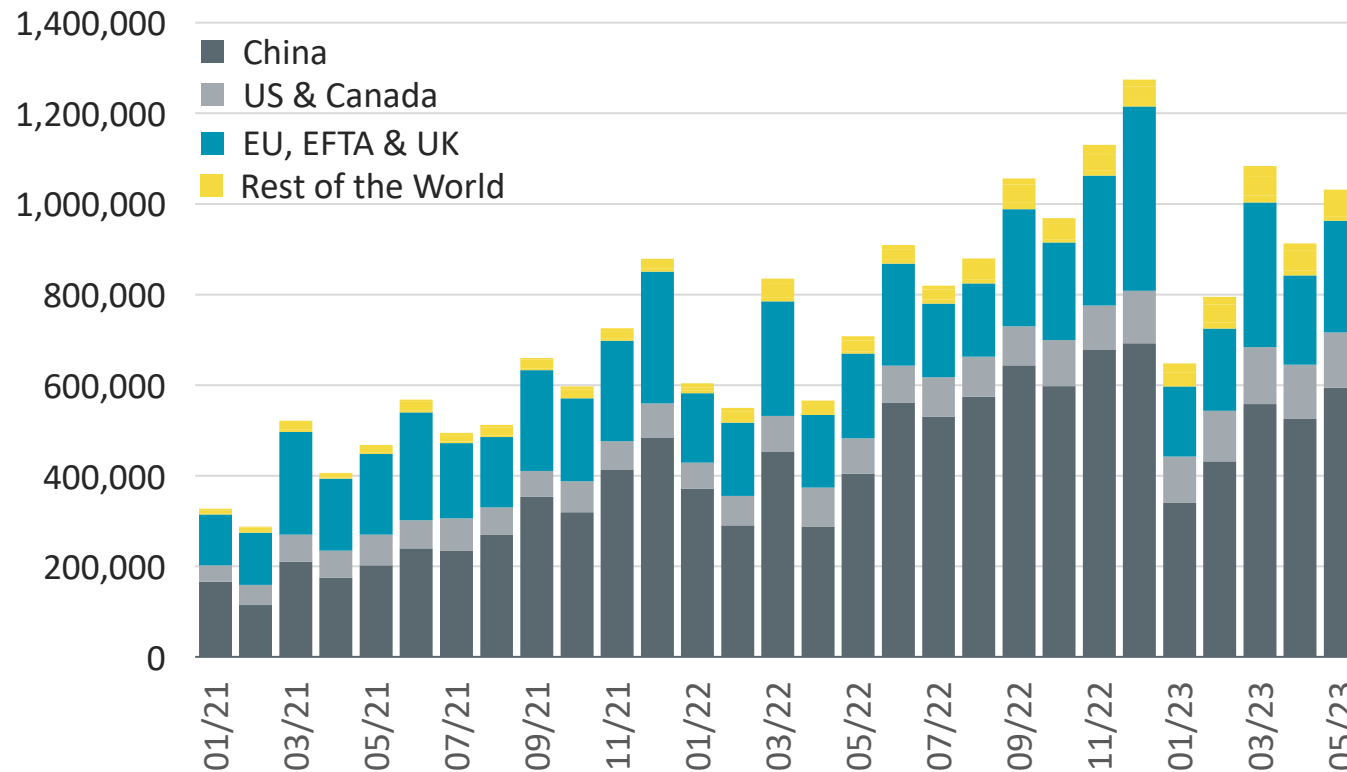


# »» Market review



# » At the beginning of the year, electric car market in China dropped

## Global EV sales, million units

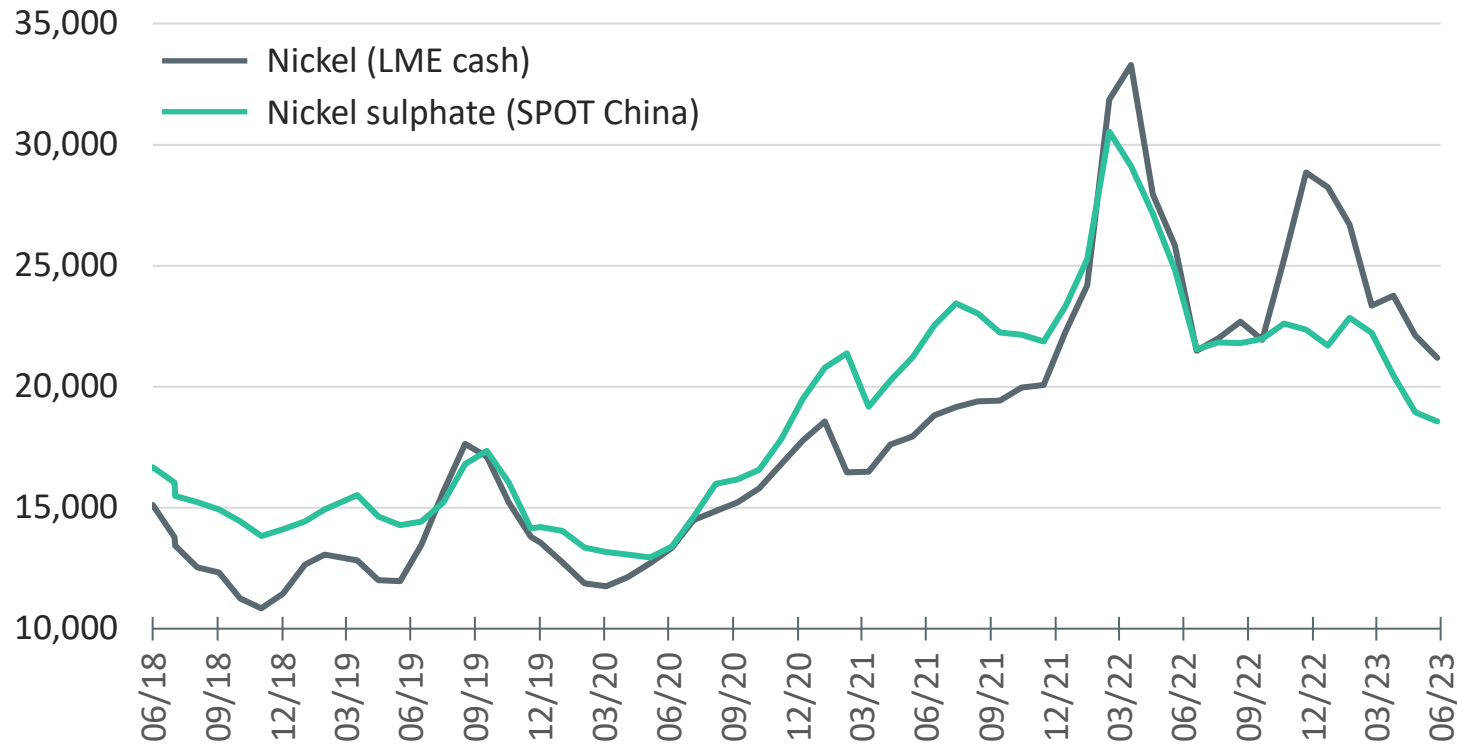


- In January—May 2023, around 4.5 (3.3) million electric cars\* were sold globally, which represents an increase of around 37% year-on-year.
- Although the sales of electric cars in China increased by around 36% compared to January—May 2022, the sales were some 32% lower than in the last quarter of 2022, and clearly below market expectations.
- In the rest of the world, the sales of electric cars were in line with expectations.
- The global sales of electric cars are expected to continue to grow in 2023. The sales are expected to grow by 33% compared to last year, to 13.9 (10.5) million cars.



# »» The drop in electric car market in China lowered the price of nickel sulphate in the first half of the year

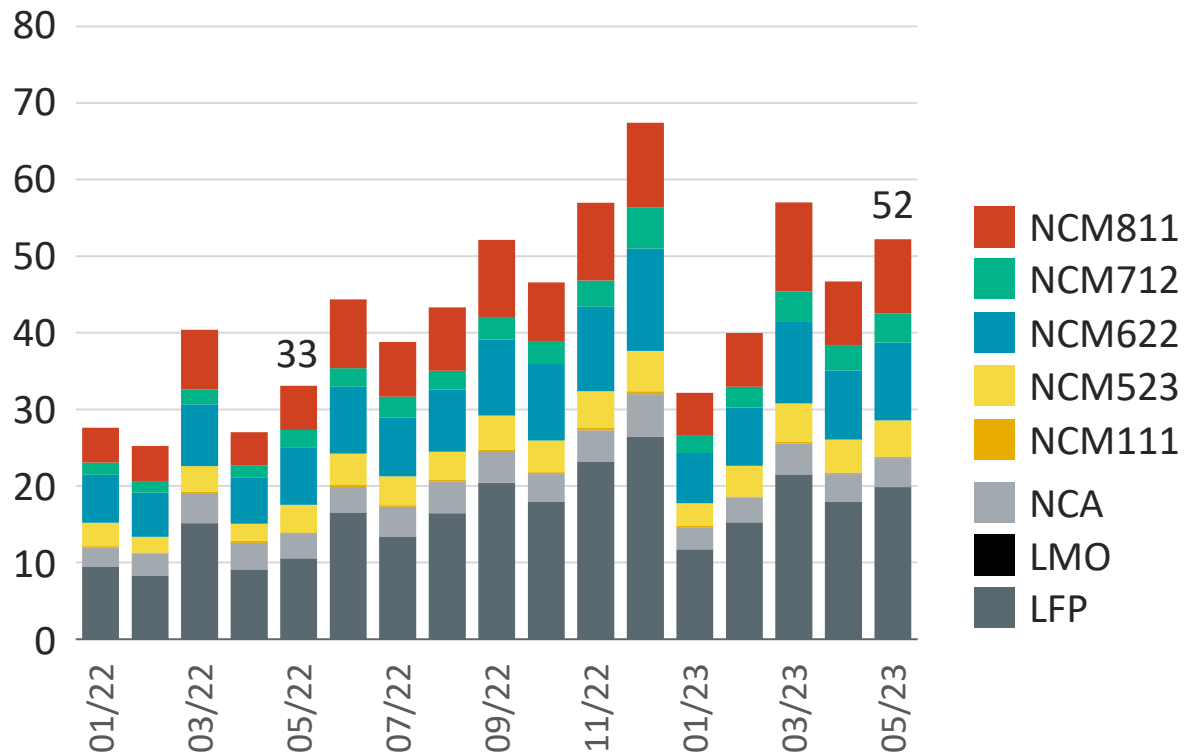
Price development of nickel and nickel sulphate, USD/t



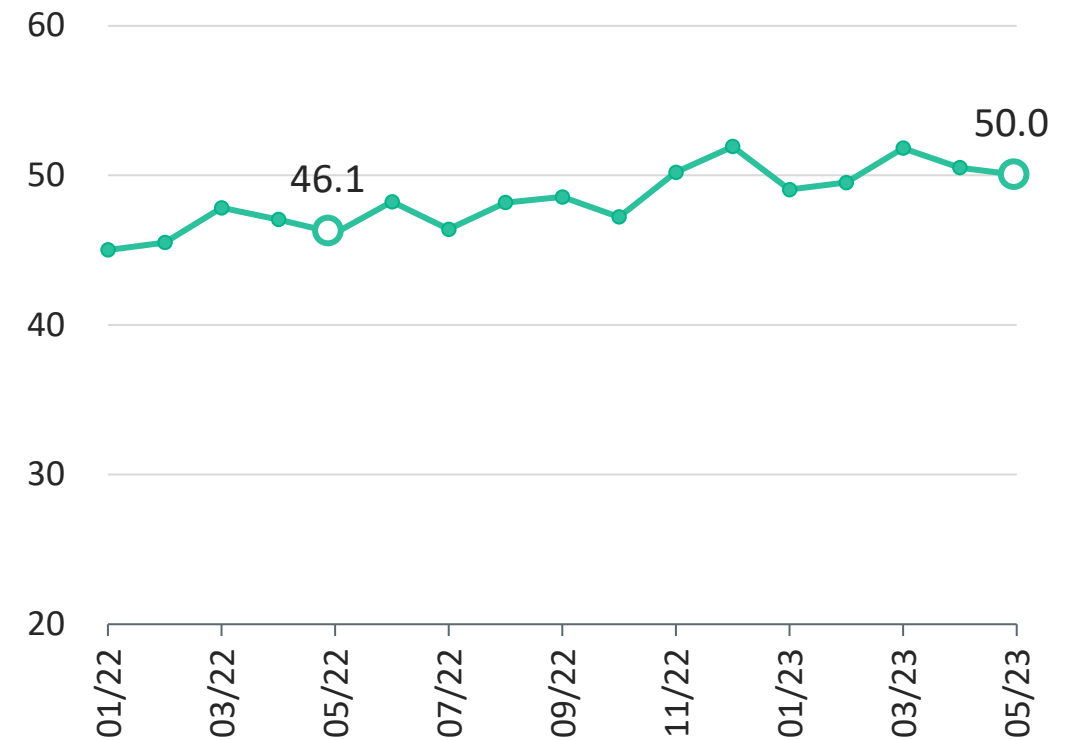
- The average market price for nickel in Q2 2023 was 22,308 USD/t, around 23% lower than in Q2 2022. Compared to Q1 2023, the average market price of nickel decreased by about 14%.
- The average price of nickel sulphate in Q2 2023 was 19,285 USD/t, which was around 29% lower compared to Q2 2022 and 13% lower compared to Q1 2023.

# »» The EV battery markets are dividing into NMC and LFP batteries

Monthly weighted average EV battery cathode chemistry, GWh



Sales weighted average EV battery pack size, kWh



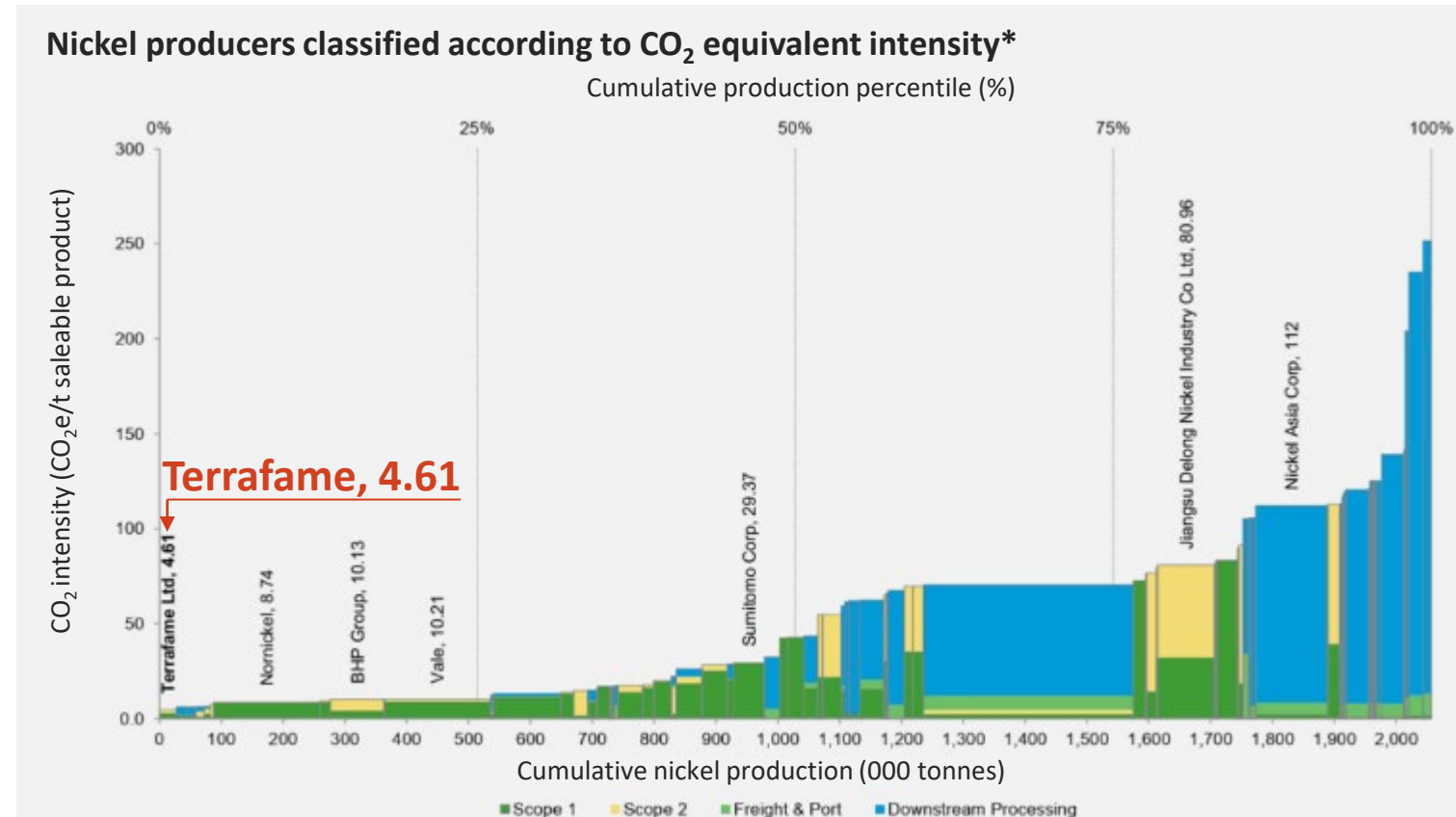
**» Sustainability as a  
competitive advantage**



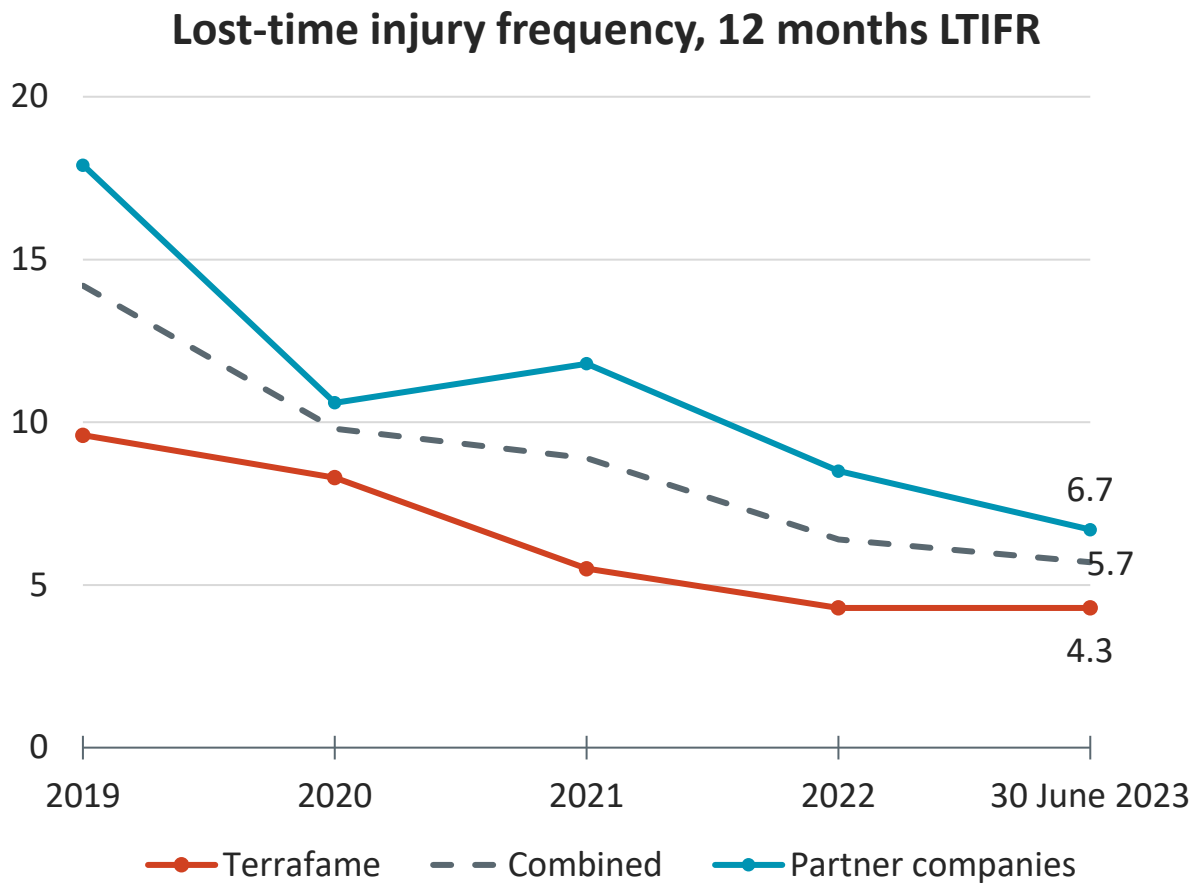


# » Sustainability and continuous improvement are the starting points for all operations at Terrafame

- In January–June 2023, the process solutions were in a closed circulation as in the previous year. The sulphate loading was accumulated from the treatment of runoff waters and the discharging of purified water.
- Terrafame is continually striving to reduce its own carbon footprint and is committed to carbon-neutral battery chemicals production by 2039 as a part of the company's sustainability programme.
- At the first half of the year, work on improving safety continued with good results.



# » The goal is zero accidents



Terrafame employed **887** (869) persons at the end of June 2023 and, moreover, an average of **1,046** (653) partner companies' employees (FTE) worked in the industrial area during the review period.

**Terrafame**



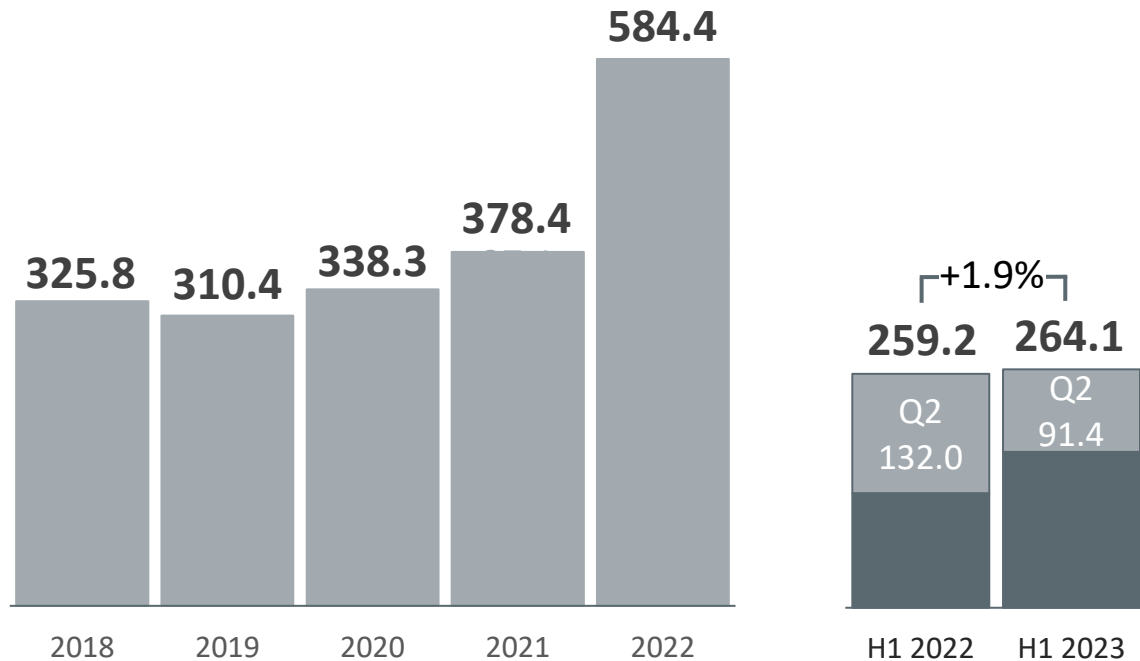


» **Financial  
review**



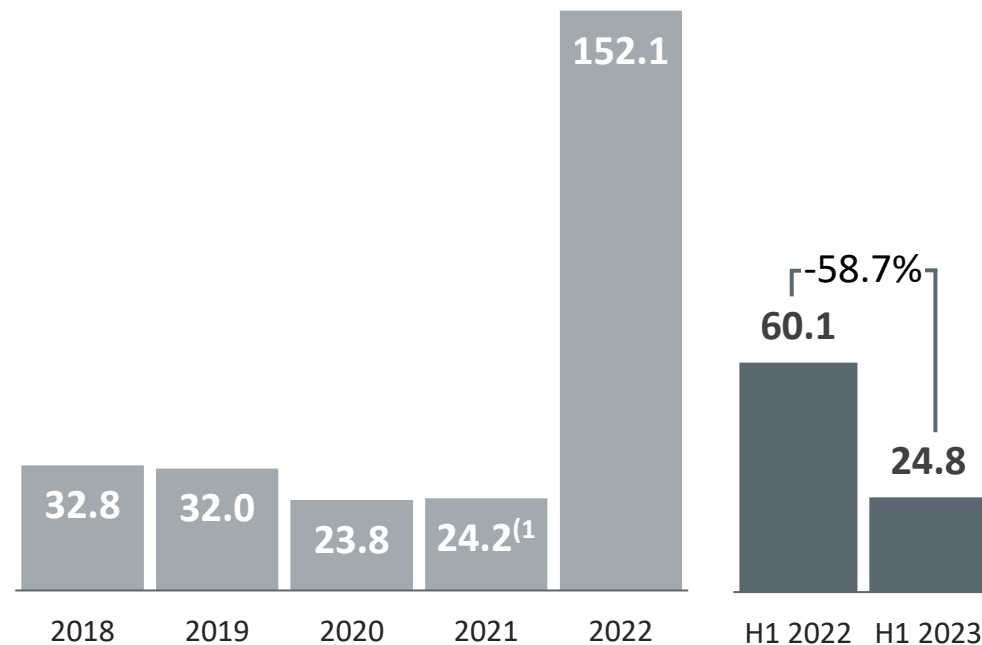
» A drop in the nickel sulphate market in China clearly decreased the net sales while basic production remained at a good level

Net sales, EUR million

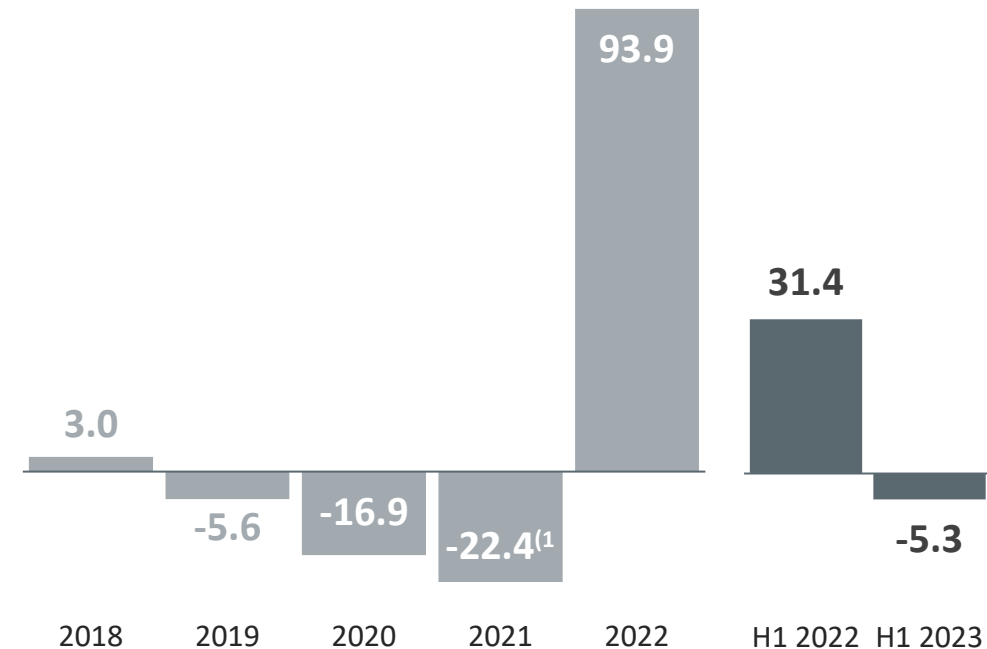


# >>The weak situation in the Chinese markets and the shutdown of battery chemicals production weakened the company's financial result

EBITDA, EUR million



Operating result, EUR million



1) Excl. non-recurring items. The increase in the environmental reserve in Q4/2021 reduced EBITDA and operating income by EUR 72.9 million. Reported EBITDA for 2021 was EUR -48.8 million and operating income was EUR -95.3 million.

# »» Trafigura and Sampo increased their shareholdings in June

- Terrafame agreed with Finnish Minerals Group (FMG) on a new revolving credit facility of EUR 40 million.
- The company also repaid and reorganised its shareholder loans, for example, by postponing the June 2023 and October 2023 repayments to the spring of 2024.
- In Q2 2023, Terrafame's minority shareholders, the Galena Funds managed by Trafigura and Sampo plc, exercised their option rights to subscribe for new shares in Terrafame totalling EUR 32.6 million.

## Ownerships in 30 June 2023

Finnish Minerals Group	66.9%
Galena Funds	31.0%
Sampo plc	2.1%

## As a result of the aforementioned exercise of option rights, the ownerships will be

Finnish Minerals Group	64.5%
Galena Funds	32.9%
Sampo plc	2.5%

Finnish Minerals Group's holding may decrease to no lower than 50.1% in the future, if Trafigura and Sampo exercise all their option rights. In such a case, the holding of Trafigura would be around 45.0%, and that of Sampo would be around 5.0%.



## >> Key figures in brief

	Q2 2023	Q2 2022	Change	H1 2023	H1 2022	Change	2022
<b>Net sales, EUR million</b>	<b>91.4</b>	132.2	-30.9%	<b>264.1</b>	259.2	1.9%	584.4
Battery chemicals business	<b>32.1</b>	53.4	-39.9%	<b>98.3</b>	97.4	0.9%	207.1
Metal intermediates business	<b>59.3</b>	78.8	-24.7%	<b>165.8</b>	161.8	2.5%	377.3
<b>EBITDA, EUR million</b>	<b>-17.7</b>	32.4	n.a.	<b>24.8</b>	60.1	-58.7%	152.1
<b>Operating result, EUR million</b>	<b>-32.8</b>	17.9	n.a.	<b>-5.3</b>	31.4	n.a.	93.9
<b>Free cash flow, EUR million<sup>(1)</sup></b>	<b>-33.9</b>	16.4	n.a.	<b>-22.0</b>	-7.3	n.a.	9.8
<b>Total capital expenditure, EUR million</b>	<b>36.6</b>	21.6	69.2%	<b>59.2</b>	39.3	50.5%	83.0

1) Free cash flow from operating activities after sustaining capital expenditure = EBITDA – change in net working capital – sustaining capital expenditure

## »» Outlook

- The production of battery chemicals will be restarted in August.
- The price development of base metals and battery chemicals involves considerable uncertainty.
- The market estimates suggest that cathode material production (pCAM/CAM) as well as battery cell and electric car production will increase significantly over the coming years in Europe. Europe's electric car market will become the main market area for Terrafame.
- The development of operational efficiency and occupational safety will continue in line with the principles of continuous improvement (Operational Excellence).







# Terrafame

Enhancing low-carbon  
mobility with responsible  
battery chemicals.

[www.terrafame.com](http://www.terrafame.com)

