

Terrafame's net sales in the first half of 2021 amounted to EUR 185.0 million - battery chemicals plant's ramp-up started

(The financial information presented about Terrafame Ltd in this bulletin consists of unaudited FAS figures. The figures in brackets refer to the corresponding period of the previous year unless otherwise stated.)

April-June 2021 in brief

- The ramp-up of production at the battery chemicals plant started in June.
- Nickel production was 6,778 (7,100) tonnes, representing a decrease of 4.5% year-on-year. Zinc production was 13,362 (14,387) tonnes, with a decrease of 7.1% year-on-year. The scheduled maintenance shutdown implemented in May caused production volumes to decrease compared with the previous year, when the shutdown was implemented in August.
- The average price of nickel on the London Metal Exchange was USD 17,359 (12,243) USD/t, which is 42% higher than in the comparison period.
- The average price of zinc on the London Metal Exchange was 2,916 (1,964) USD/t, with an increase of 48% year-on-year.
- The average EUR/USD exchange rate for the second quarter was 1.21 (1.10 in the second quarter of 2020).
- Net sales were EUR 91.6 (76.5) million, representing an increase of 19.7% year-on-year.
- The growth was driven by the prices of nickel and zinc, which were markedly higher than in the comparison period. On the other hand, Euro strengthened against USD.
- EBITDA was EUR 6.7 (7.8) million, or 7.3% (10.2) of net sales.
- The operating result was EUR -3.6 (-2.2) million.
- Free cash flow from operating activities was EUR 13.0 (-13.2) million.

January-June 2021 in brief

- Nickel production in the review period was 14,064 (15,462) tonnes, representing a decrease of 9% year-on-year. Zinc production was 25,574 (29,929) tonnes, with a decrease of 14.6% year-on-year. Production volumes in the first quarter and the scheduled maintenance shutdown implemented in the second quarter caused production volumes to decrease from the previous year, when production was strong in the first half of the year.
- The average price of nickel on the London Metal Exchange in the review period was USD 17,466 (12,483) USD/t, which is 40% higher than in the comparison period.
- The average price of zinc on the London Metal Exchange in the review period was 2,832 (2,046) USD/t, with an increase of 38% year-on-year.
- Net sales in the review period were EUR 185.0 (172.6) million, representing an increase of 7.2% year-on-year.
- EBITDA in the review period was EUR 16.3 (19.1) million, or 8.8% (11.1) of net sales.
- EBITDA was burdened, in particular, by operating costs related to preparations for the production ramp-up of the battery chemicals plant and the scheduled maintenance shutdown implemented in May.
- The operating result was EUR -4.3 (-0.6) million in the review period.
- Cash flow from operating activities was EUR 34.9 (12.1) million.
- The combined lost-time injury frequency rate (LTIFR) of Terrafame and all its partners was 8.7 (15.2).

Financial and production key figures

	2021 Q2	2020 Q2	Change, %	2021 H1	2020 H1	Change, %	2020
Financial figures							
Net sales, EUR million	91.6	76.5	19.7 %	185.0	172.6	7.2 %	338.3
EBITDA, EUR million	6.7	7.8	-14.1 %	16.3	19.1	-14.7 %	23.8
Operating result, EUR million	-3.6	-2.2	-	-4.3	-0.6	na	-16.9
Work in progress, EUR million	195.0	186.8	4.4 %	195.0	186.8	4.4 %	190.2
Free cash flow, EUR million ⁽¹⁾	-13.0	-13.2	na	-34.9	12.1	na	13.8
Capital expenditure, total, EUR million	70.7	54.1	30.7 %	103.4	97.4	6.2 %	201.8
Sustaining capex, EUR million	12.3	13.5	-8.9 %	18.6	22.0	-15.5 %	39.5
Development and growth capex, EUR million	58.4	40.6	43.8 %	84.8	75.4	12.5 %	162.3
Equity, EUR million	476.3	407.1	17.0 %	476.3	407.1	17.0 %	442.1
Total assets, EUR million	946.0	838.6	12.8 %	946.0	838.6	12.8 %	918.5
Metals production							
Nickel produced, tonnes	6,778	7,100	-4.5 %	14,064	15,462	-9.0 %	28,740
Zinc produced, tonnes	13,362	14,387	-7.1 %	25,574	29,929	-14.6 %	55,100

1) Free cash flow from operating activities after sustaining capital expenditure = EBITDA - change in net working capital - sustaining capital expenditure without right-of-use assets.

Joni Lukkaroinen, CEO of Terrafame:

“The global sales of electric vehicles continued to be very strong. Around 2 million electric vehicles were sold globally in January–May 2021 compared with around 0.8 million units in the corresponding period of 2020. According to the latest estimate by Rho Motion, nearly 4.9 million electric vehicles will be sold globally in 2021. Demand for electric car batteries is estimated to increase by 47% from 2020.

In other words, our new battery chemicals plant was completed at an excellent time. The ramp-up of production at the plant started in June and first customer deliveries in July. Car manufacturers have ambitious goals to increase the proportion of electric vehicles in their production, which also supports the creation of the European battery value chain.

The scheduled maintenance shutdown implemented in May caused production volumes to decrease in the second quarter. Our net sales in January–June increased to EUR 185.0 (172.6) million, with an increase of 7.2% year-on-year. The increase in net sales was driven by the prices of nickel and zinc, which were higher than in the comparison period and compensated for the low production volumes. EBITDA in the review period was EUR 16.3 (19.1) million, or 8.8% (11.1) of net sales. EBITDA was burdened by operating costs related to the preparations for the ramp-up of the battery chemicals plant and the scheduled maintenance shutdown implemented in May.

We have continued our work to strengthen the safety culture on our industrial site. The ongoing development project has produced good results, and the lost-time injury frequency rate of both Terrafame and its partners on the industrial site decreased during the first half of 2021. The combined rolling 12-month lost-time injury frequency rate (LTIFR) of Terrafame and its partners was 8.7 (15.2) at the end of the review period.”

Market environment

Electric vehicle and battery markets

The global sales of electric vehicles continued to be strong. Around 2 million electric vehicles were sold globally in January–May 2021 compared with around 0,8 million units in the corresponding period of 2020. In the first half of 2020, OEM manufacturers were forced to ramp down production because of the coronavirus pandemic, which reduced the sales of electric vehicles accordingly.

The sales of electric vehicles were particularly strong in China, where the sales of passenger cars and light commercial vehicles in January–May 2021 increased by more than 220% compared with the corresponding period of 2020. Sales were also strong in Europe, where the sales of passenger cars and light commercial vehicles grew by more than 150%. The corresponding increase in sales in the United States and Canada was 107%.

Including all vehicle categories, the sales-weighted average pack size was 45 kWh in May 2021 (51 kWh). The growing market share of plug-in hybrids in Europe caused the average pack size to decrease in 2020. The pack size began to increase again in the first half of 2021 as a result of the strong sales of full electric vehicles in North America and the Asia-Pacific region.

The market share of NCM 811 batteries, which have a high nickel content, increased to around 12% in January–May 2021 (around 7% in January–May 2020). The market share of NCM 622 batteries was around 30% in January–May 2021 (around 39% in January–May 2020). The market share of NCM 712 batteries, which were introduced in the summer of 2020, was around 7% in May 2021. Overall demand for electric car batteries is estimated to increase by 47% in 2021 compared with 2020.

Nickel and zinc

The prices of base metals on the London Metal Exchange (LME) in the review period were markedly higher than in the corresponding period of 2020.

The average market price of nickel in January–June 2021 was USD 17,466 (12,483) USD/t, which is 40% higher than in the corresponding period of 2020. The average market price of nickel in the second quarter of 2021 was USD 17,359 (12,243) USD/t, which is 42% higher than in the comparison period but slightly lower than in the first quarter of 2021 (17,544).

The average market price of zinc in the first quarter of 2021 was USD 2,832 (2,046) USD/t, which is 38% higher than in the corresponding period of 2020. The average market price of zinc in the second quarter of 2021 was USD 2,916 (1,964) USD/t, which is 48% higher than in the comparison period and 6% higher than in the first quarter of 2021.

The total combined nickel stocks on the London Metal Exchange (LME) and the Shanghai Futures Exchange (SHFE) stood at 237,604 tonnes at the end of the review period. The stocks decreased somewhat from the end of the first quarter (269,874) and compared with the end of the second quarter of 2020 (262,517). The stock level corresponds to demand for around 4 weeks (less than 6 weeks). Zinc stocks stood at 289,539 tonnes at the end of the review period and remained at a level corresponding to demand for around 1 week. The stock level was higher compared with the end of the second quarter of 2020 (220,457), but decreased markedly from the end of the first quarter of 2021 (389,529).

Currency exchange rate

The average EUR/USD exchange rate for the second quarter was 1.21 (1.10 in the second quarter of 2020). In the second quarter, the EUR/USD exchange rate remained at the same level as in the first quarter of 2021 (1.21). The EUR/USD exchange rate was 1.10 in the first quarter of 2020.

Metal production

Nickel production in the review period was 14,064 (15,462) tonnes, representing a decrease of 9% year-on-year. Zinc production was 25,574 (29,929) tonnes, with a decrease of 14.6% year-on-year. Lower production volumes in the first quarter and the scheduled maintenance shutdown implemented in the second quarter caused production volumes to decrease from the previous year, when production was particularly strong in the first half of the year.

Nickel production in the second quarter was 6,778 (7,100) tonnes, representing a decrease of 4.5% year-on-year. Zinc production was 13,362 (14,387) tonnes, with a decrease of 7.1% year-on-year. The scheduled maintenance shutdown implemented in May caused production volumes to decrease compared with the previous year, when the shutdown was implemented in August.

Net sales and financial performance

Net sales in the review period were EUR 185.0 (172.6) million, representing an increase of 7.2% year-on-year. The increase in net sales was driven by the prices of nickel and zinc, which were higher than in the comparison period and compensated for the low production volumes.

Net sales in the second quarter were EUR 91.6 (76.5) million, representing an increase of 19.7% year-on-year. The growth was driven by the prices of nickel and zinc, which were higher than in the comparison period.

EBITDA in the review period was EUR 16.3 (19.1) million, or 8.8% (11.1) of net sales. EBITDA was burdened by operating costs related to the preparations for the ramp-up of the battery chemicals plant and the scheduled maintenance shutdown implemented in May. In 2020, the maintenance shutdown was implemented in August.

EBITDA in the second quarter was EUR 6.7 (7.8) million, or 7.3% (10.2) of net sales.

The operating result for the review period was EUR -4.3 (-0.6) million, and free cash flow from operating activities* was EUR 34.9 (12.1) million.

The operating result for the second quarter was EUR -3.6 (-2.2) million, and free cash flow from operating activities was EUR 13.0 (-13.2) million.

* Free cash flow from operating activities after sustaining capital expenditure = EBITDA – change in net working capital – sustaining capital expenditure without right-of-use assets.

Capital expenditure

Capital expenditure totalled EUR 103.4 (97.4) million in the review period. Of this total, EUR 84.8 (75.4) million was used to improve productivity and increase capacity, and EUR 18.6 (22.0) million was used to sustain production.

The most significant investments in capacity growth were related to the construction of the battery chemicals plant and the extension of sections 2 and 3 of the primary leaching area by 150 metres. The ramp-up of production at the battery chemicals plant started in June.

The most significant investment projects related to sustaining production were the construction of a new section of the waste rock area, the purchase of spare parts for mining equipment and the ore crushing lines, increasing the pool capacity related to water management, changes to the conveyors in the secondary leaching area, and the construction of the new roof of the intermediate storage

building.

Financing arrangements

During the review period, Terrafame drew out a total instalment of around EUR 69 million of the equity financing (EUR 115 million in total) negotiated with the Finnish Minerals Group and Galena in August 2020. Around EUR 23 million of the financing remained unused at the end of June.

At the end of the review period, the shareholders' holdings were distributed as follows:

Finnish Minerals Group	67.0%
Galena Funds (Trafigura)	31.2%
Sampo plc	1.8%

Personnel and partner network

Terrafame had 975 (848) employees at the end of the review period, which represents an increase of 15% year-on-year. The number of personnel recruited directly or indirectly (e.g. laboratory, logistics) to the battery chemicals plant and including the apprenticeship training programme students as well as summer workers was 181 persons. At the end of the reporting period, altogether 48 people studied in a two-year apprenticeship training programme leading to a vocational qualification in the process industry. The programme is organised by Terrafame in cooperation with Kainuu Vocational College and Educational Consortium OSAO. The number of summer workers were 75 at the end of June.

An average of around 150 long-term partner companies operated on Terrafame's industrial site during the review period. An average of 1,001 (1,022) people employed by contractors and subcontractors worked on the site during the review period (FTE). This also includes the people who worked on the construction project of the battery chemicals plant.

Sustainability

Sustainability is an integral part of Terrafame's business and operations. The company is committed to the UN Global Compact principles in its operations. The company also respects the ILO Declaration on Fundamental Principles and Rights at Work in its operations. In addition, Terrafame's employees and partners, as well as its suppliers of services and materials, must comply with its Code of Conduct and the principles of its sustainability policy. Policy implementation is supported by Terrafame's certified management system (ISO 9001, ISO 45001 and ISO 14001) and more detailed operating guidelines. Terrafame operates in accordance with the laws and regulations issued by the authorities.

Sustainability programme

Terrafame's purpose is to enhance low-carbon mobility with responsible battery chemicals. Terrafame started a sustainability programme in 2020, setting ambitious numerical and qualitative targets for the development of its operations for 2020–2024. The themes and targets of the sustainability programme are linked to the UN Sustainable Development Goals as far as applicable. The implementation of the sustainability programme is monitored in our sustainability report, which is published annually. The latest sustainability report is available on the company's website at www.terrafame.com > Terrafame Ltd > Responsibility.

Competence development and operating culture

Highly competent employees are an important resource for Terrafame.

Summer workers, as well as trainees from educational institutions and students writing their thesis with us, are an important group for us, alongside our permanent staff. Our summer workers and trainees come from a wide area, which also increases general awareness of our company's operations. In the summer of 2021, Terrafame hired 75 summer workers, despite the exceptional arrangements caused by the coronavirus pandemic. Our summer workers are prospective future employees of Terrafame.

In the first half of 2021, the focuses of employees' competence development included the development of the company's safety and management culture, as well as skills related to operator-driven reliability (ODR), for example.

The annual personal performance and development appraisals were conducted during the second quarter.

In 2021, the most significant investment in the development of the company's operating culture is the ROTI project, which focuses on developing the safety and management culture and production reliability. The project strengthens a culture of continuous improvement through learning, inclusion and a systematic approach. All employees – supervisors and production staff in particular – will be able to participate in the project in practice through safety discussions and safety and shift meetings, for example.

Terrafame expects its partners to make a commitment to the Code of Conduct, high-quality operations, safety and continuous improvement of efficiency. Terrafame assesses the operations of its partner companies through regular audits and evaluations conducted during the contract period, after the completion of work and when selecting new partners through competitive bidding.

A total of 2 (3) supplier audits were carried out in January–June 2021. In addition, a total of 6 supplier assessments were conducted using the tool introduced in June 2020. During the first half of the year, three separate partner meetings were held to discuss the company's operating principles, the principles of the UN Global Compact initiative and the zero tolerance rules adopted by the company as part of its enhanced safety work in 2020. Around 200 representatives from a total of 108 partner companies participated in the meetings.

Safety at work

Safety is one of the core values at Terrafame, and the continuous development of a safety culture has been one of the main priorities since the company was established. Operations within the industrial site must be safe for both the company's own employees and those of its partners in all circumstances and situations. We aim for zero accidents.

Occupational safety indicators, 12-month LTIFR1	H1/2021	H1/2020	Change, %	2020
Accident frequency rate, Terrafame employees	4.9	11.5	-57.4	8.3
Accident frequency rate, partner companies	11.1	17.8	-37.6	10.6
Total accident frequency rate on the industrial site	8.7	15.2	-42.8	9.8

The ROTI project, which started in late 2020, has begun to produce results. Accidents involving Terrafame's employees have decreased significantly during 2021.

The environment and environmental permits

Terrafame monitors the state of the environment on the industrial site in accordance with the permit decisions and the monitoring programme approved by the authorities. Annual environmental monitoring reports for 2020 are available in Finnish on Terrafame's website at www.terrafame.fi > [Ympäristö > Ympäristövaikutukset ja -tarkkailu > Ympäristötarkkailuraportit](#). The metal and sulphate concentrations of discharge waters and the load cause by the release of water were in line with the environmental permit conditions in January–June 2021.

On 20 January 2021, the Regional State Administrative Agency for Northern Finland granted an environmental permit to Terrafame for its battery chemicals plant.

After the end of the review period, on 2 July 2021, the Regional State Administrative Agency for Northern Finland granted an environmental permit to Terrafame for the extension of the primary leaching area. The production use of the primary leaching area will be expanded by 150 metres in sections 2 and 3 during the summer of 2021.

On 24 June 2021, the Supreme Administrative Court issued its decision on the uranium recovery permit granted by the government to Terrafame on 6 February 2020. The permit decision had been appealed to the Supreme Administrative Court. The Supreme Administrative Court issued its decision as a yearbook decision. The company filed a permit application for uranium recovery under the Nuclear Energy Act (990/1987) to the Finnish Government on 30 October 2017.

On 22 June 2021, the Supreme Administrative Court issued its decision on the environmental permit for Terrafame's KL2 waste rock area. With its decision, the Supreme Administrative Court rejected the appeals filed against the decision issued by the Vaasa Administrative Court on 16 December 2019, meaning that the decision of the Vaasa Administrative Court remains valid. The environmental permit for the KL2 waste rock area is valid until the case concerning Terrafame's main permit has been resolved by means of a final or executable decision.

Near-term outlook

The price development of base metals and battery chemicals involves uncertainty.

The ramp-up of the battery chemicals plant is progressing. The production of battery chemicals is expected to increase the company's net sales from late 2021.

Terrafame continues to invest in improving its safety culture, production and cost-effectiveness.

For further information, please contact:

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Webcast briefing in Finnish for media representatives will be held on 29 July at 01:00 pm Finnish time. In the briefing the result will be presented by Terrafame Ltd's CEO Joni Lukkaroinen. The webcast can be viewed at terrafame.videosync.fi/q2-2021. Questions can be asked by sending a message via the form found on the same page.

Terrafame reduces the carbon footprint of transport by delivering responsibly produced battery chemicals to the global battery industry. One of the world's largest production lines for chemicals used in electric car batteries is located on Terrafame's industrial site. The plant is capable of producing nickel sulphate for around

1 million electric cars per year. The carbon footprint of the nickel sulphate produced by Terrafame is among the smallest in the industry.

Terrafame's integrated, unique and energy-efficient production process from the mine to battery chemicals is located on a single industrial site. It provides customers with a transparent, traceable and truly European battery chemical supply chain.

Terrafame Ltd was founded in 2015. Its net sales in 2020 were EUR 338 million. Around 1,600 people work on its industrial site, half of whom are employees of partner companies.