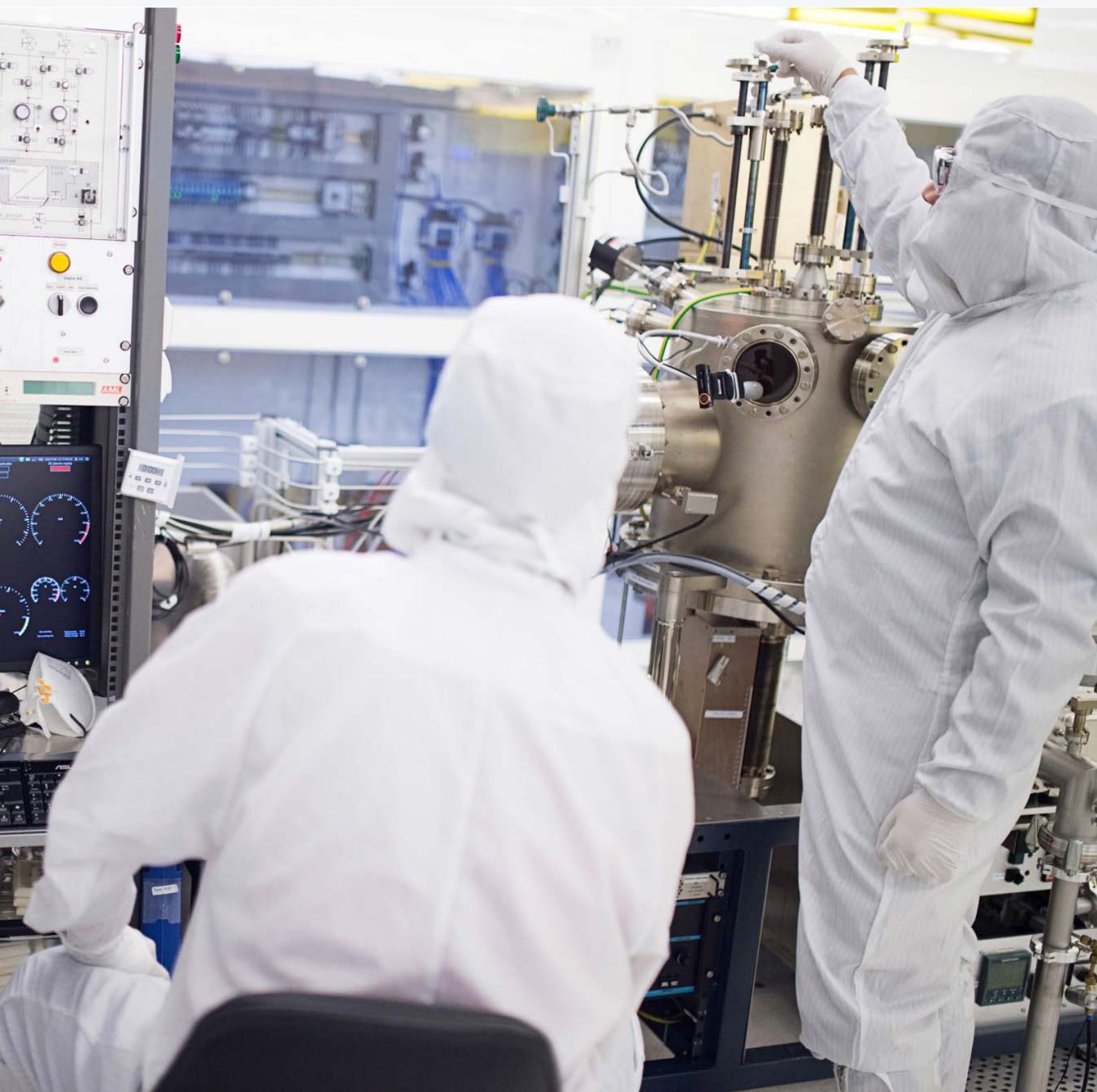


# INTERIM REPORT

Smoltek Nanotech Holding AB

APRIL–JUNE 2024



# Smoltek Nanotech Holding AB, Q2 2024

## ABOUT SMOLTEK

Smoltek develops process technology, concepts and applications to solve advanced materials engineering problems within several different industrial sectors.

Smoltek's pioneering carbon nanotechnology enables, for example, the manufacture of components with smaller form factors, higher performance and lower energy consumption in the semiconductor industry. Today, the company focuses on developing a disruptive capacitor technology for use in mobile phones and other advanced electronics applications.

Smoltek also sees great potential in the hydrogen industry, where the company is currently focusing on developing a nanofiber-based cell material for the anode electrode in the electrolyzer cell. The new cell material enables the hydrogen industry to scale up the production of both smaller and more cost-effective PEM electrolyzers.

Smoltek protects the company's unique technology platform through an extensive and strategic patent portfolio. Smoltek's share is listed on Spotlight Stock Market under the ticker SMOL.

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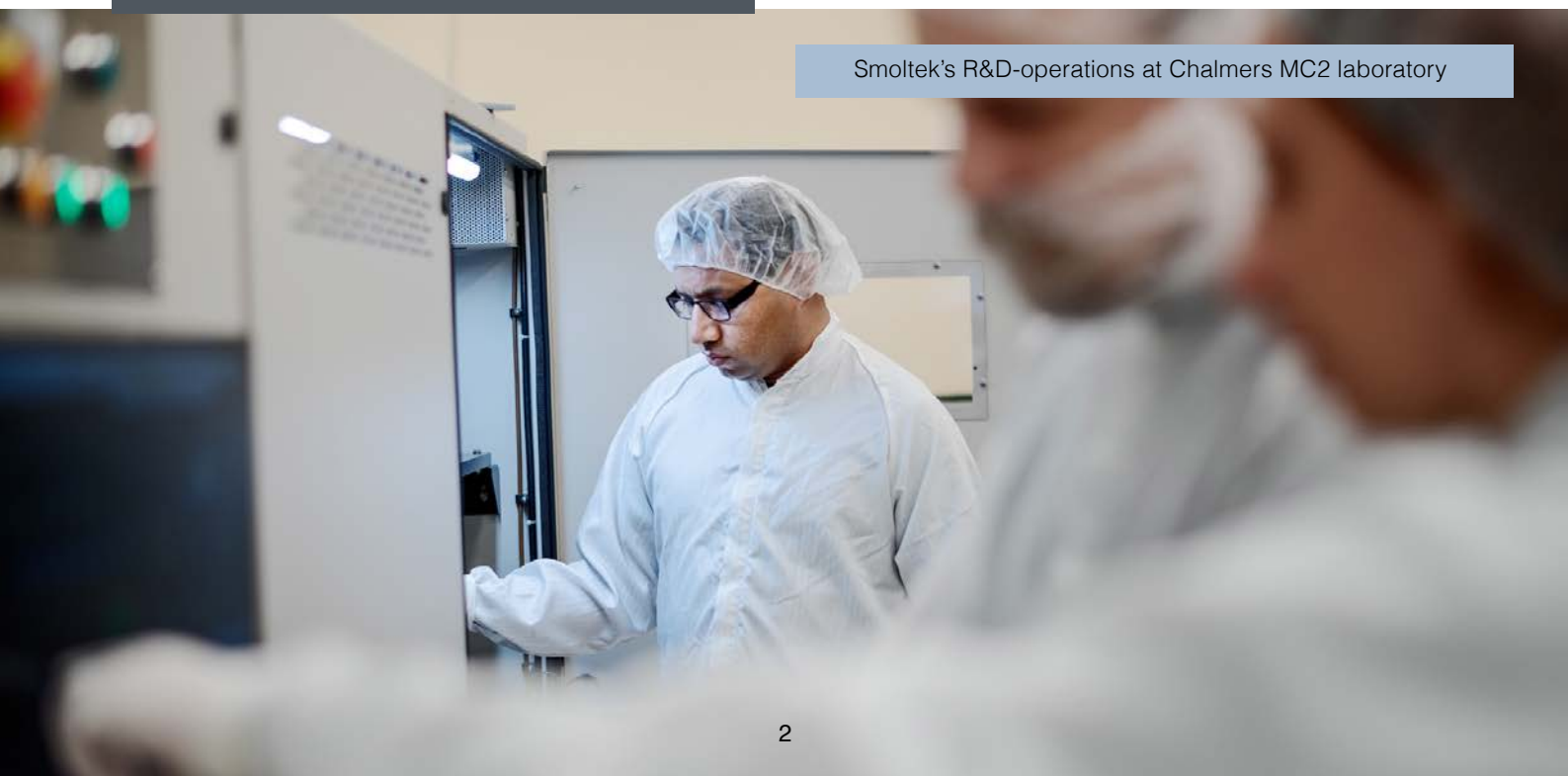
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*Note: This interim report is an English version of the previously published Swedish version, which has interpretive precedence.*

*Cover photo: Paul Wennerholm*

Smoltek's R&D-operations at Chalmers MC2 laboratory



## The second quarter in brief (Group)

### JANUARY - JUNE

- Net sales: SEK 1,776 thousand (3,056)
- Result for the period: SEK -16,255 thousand (-28,091)
- Earnings per share, before dilution: -0.71 SEK (-1.95)
- Earnings per share, after possible dilution: -0.61 SEK (-1.92)
- No. of outstanding shares: 23,074,203\* (16,222,202)
- No. of shares after possible exercise of warrants: 26,721,045 (16,504,222)
- Total equity: SEK 100,607 thousand (103,533)
- Cash and cash equivalents: SEK 3,857 thousand (48,126)
- Equity Ratio: 90.9% (83.0%)

### SECOND QUARTER

- Net sales: SEK 102 thousand (1,651)
- Result for the period: SEK -7,173 thousand (-13,097)
- Earnings per share, before dilution: -0.31 SEK (-0.90)
- Earnings per share, after possible dilution: -0.27 SEK (-0.88)
- Smoltek Hydrogen has successfully completed a 1,000-hour test of the company's cell material for PEM electrolyzers
- Smoltek Semi has completed a new technology generation of the company's CNF-MIM capacitors that enables greatly increased capacitance density
- Smoltek has carried out a rights issue that strengthens the treasury by SEK 22.4 million before issue costs - the issue proceeds were paid out on July 4, 2024
- Smoltek has started a strategic process to collect bids from interested parties for various assets in the company
- A world-leading vehicle manufacturer tests Smoltek's cell material for electrolyzers
- Smoltek Hydrogen has tripled the size of plasma to A4 size, which is a prerequisite for the industrialization of the technology for the company's cell material for PEM electrolyzers

### INCOME AND RESULTS SECOND QUARTER

Net sales during the period amounted to SEK 102 thousand (1,651). The operating result was SEK -7.7 million (-13.1). Earnings per share before dilution were SEK -0.31 (-0.90). Earnings per share after possible dilution were SEK -0.27 (-0.88).

### LIQUIDITY AND FINANCIAL CONDITION

The company's cash and cash equivalents, including short-term investments, amounted to SEK 3,857 thousand (48,126) at the end of the period. Long-term interest-bearing liabilities amounted to SEK 682 thousand (693). The equity ratio was 90.9 percent (83.0).

### EQUITY AND NUMBER OF SHARES

At the end of the period, equity amounted to SEK 100,607 thousand (103,533) distributed over 23,074,203\* shares (16,222,202).

### EMPLOYEES

The number of annual employees amounted to 18 people (21).

\* After completed rights issue and compensation issue at the end of June, at the date of this report, the number of shares amounts to 76,814,040.

## CEO Håkan Persson comments on the period

Dear Shareholders,

Groundbreaking innovation and deep technical development form the basis of Smoltek's operations, and continued progress in the development of our disruptive nanotechnology gives us the conditions to generate revenue in both existing and new business areas.

In order to create long-term income, we need to enter into collaborations and partnerships in order to finance the commercialization of our technology. As a consequence of the termination of contract negotiations with Yageo, for a global exclusive license and service agreement for discrete and embedded capacitors, earlier this spring, we needed to reevaluate our strategy for the business and how we can best create financial stability in the work of taking our technology to the market.

In order to make visible the values that the board and management see in Smoltek and to ensure the company's continued growth and development, we decided to start a bidding process where interested parties are invited to negotiations regarding the potential sale of all or parts of the business operating subsidiaries Smoltek Semi AB (semiconductor) and Smoltek Hydrogen AB (hydrogen), or concepts and intangible assets within the respective business area.

This procedure allows us to concretize the significant values that have been developed in our two business operating subsidiaries. Through this, liquid funds can be added to Smoltek to ensure continued growth and development and enable new innovations, which will create shareholder value in both the short and long term.

The working group appointed for the bidding process includes advisory consultants, who have been engaged to initially assist and define investment offers, identify relevant investors and actors and evaluate their technical competence and financial strength. During the summer months, we have carried out preparatory work and probed contacts, which has created a stable basis for further work and dialogue with potential investors.

Within the semiconductor business area, we work intensively on improving various parameters in the next technology generation (Gen-One) for our CNF-MIM capacitors, where we aim to present the world's smallest capacitors with capacitance values on par with what the market can offer today. The technology development takes place in part in collab-

oration with Yageo, who continues to show great interest in our technology and who helps us with testing and evaluation of the new capacitor generation, which we plan to be able to complete by the end of the year.

Within the hydrogen business area, we receive ongoing requests from various actors for collaboration and testing of prototypes of our nanofiber-based cell material for both electrolyzer cells and fuel cells, where our technology also can be used. For example, one of the world's largest vehicle manufacturers has received a specially manufactured and customized cell material for testing and evaluation.

One of the reasons for the great interest can be explained by the fact that at the end of March we were able to present the results of a thousand-hour durability test which shows that our material can withstand the demanding environment of an electrolyzer without being degraded. At the same time, we show that we can minimize the amount of the incredibly expensive precious metal iridium, which both enables the production of the requested volume of hydrogen gas and contributes to meeting the demands for more cost-effective production facilities for fossil-free hydrogen gas.

At the end of the period, we carried out a rights issue, which was subscribed to just over 86 percent, and which added around SEK 22 million in new capital to the company. I am very happy and grateful for the trust our shareholders show in both our technology and the strategy we have presented for how we will commercialize and create value in both current and future business areas.

In conclusion, the first half of the year has been eventful to say the least, and with our continuous technical progress and the bidding process started, I look to the future with great confidence.

*Håkan Persson, CEO of Smoltek Nanotech Holding AB*



## Significant events – during and after the period

### Significant events in the second quarter of 2024

#### Smoltek Hydrogen has successfully completed a 1,000-hour test

On April 12, it was announced that the group company Smoltek Hydrogen has completed a successful long-term test of the company's newly developed material for PEM electrolyzer cells. During 1,000 hours of continuous operation at 2 amps per square centimeter, the R&D team has produced hydrogen with a catalyst loading of only 0.2 milligrams of iridium per square centimeter, without any degradation of the nanostructure (nanofibers) in the cell.

The material that Smoltek Hydrogen develops forms one of the layers in an electrolyzer cell and the technology aims to significantly reduce the amount of iridium used as a catalyst to produce hydrogen gas. The long-term test has proven that Smoltek's nanofibers, coated with platinum, create a stable structure for the anode side electrode in a PEM electrolyzer, which is both durable and creates a large surface area for the iridium catalysts. The nanostructure proves to be intact after 1,000 hours of continuous operation in an extremely corrosive environment.



Fabian Wenger, Head of R&D Smoltek Hydrogen

#### New technology generation of the company's CNF-MIM capacitors completed

On April 22, it was announced that the group company Smoltek Semi had developed and completed a new technology generation of the company's CNF-MIM capacitors with high volumetric capacitance density, which enables a powerful increase in the capacitance density in capacitors. Gen-Zero, as it is called, is part of the technology development collaboration with Yageo, and in which Smoltek Semi owns all rights to the result.

*- The capacitor manufacturer Yageo is still very interested in our technology and will help us evaluate the results of upcoming Gen-One capacitors, says Farzan Ghavanini, CTO at Smoltek.*

With the new Gen-Zero capacitors, Smoltek can create a volumetric capacitance density of up to 120 nanofarads per square millimeter and per 1 (one) micrometer of carbon nanofiber. This is comparable to the best capacitors on the market.

However, the capacitance values in the Gen-Zero capacitors are still lower than the competition. This is because Smoltek Semi has not yet optimized the length of the carbon nanofibers in Gen-Zero, which are only a few micrometers high. In the next generation, Gen-One which is under development, the ambition is to grow longer carbon nanofibers, which is estimated to enable capacitance values on par with the competitors.

*- Although we can provide a very high volumetric capacitance density, there is still work to be done to reach our full potential. The ongoing Gen-One project will already during this year prove the strength and potential of our technology to create a world-leading capacitor product, Farzan explains.*



Farzan Ghavanini, CTO Smoltek

#### Interview with CTO, Farzan Ghavanini

On April 25, an interview with Smoltek's CTO Farzan Ghavanini was published. In the interview, he talks, among other things, about Smoltek's latest technical progress for the CNF-MIM technology and what remains to be able to fully compete with today's leading technology for ultra-thin capacitors.

The interview can be viewed at [www.smoltek.com/7299](http://www.smoltek.com/7299).

## Significant events – during and after the period

### Smoltek initiates a bidding process for the potential sale of assets or entire subsidiaries within the semiconductor and hydrogen business areas

22 May it was announced that the board decided to initiate a process to obtain bids from interested parties regarding the potential sale of concepts and intangible assets within the semiconductor and hydrogen business areas, which are conducted within the subsidiaries Smoltek Semi AB and Smoltek Hydrogen AB respectively. Alternatively, all or parts of these subsidiaries may be divested.

According to Smoltek's board, this procedure has the potential to realize all or part of the significant value that has been accrued in these subsidiaries and thereby provide the company with liquid funds for continued investment and the establishment of new business areas. The bidding process is estimated to take 6–12 months.

### A world-leading vehicle manufacturer is testing specially manufactured cell material from Smoltek

On May 24, it was announced that one of the world's largest vehicle manufacturers has contacted Smoltek Hydrogen to get the opportunity to test the company's material, which can significantly reduce the amount of iridium in an electrolyzer cell. In the collaboration that the two companies have entered into, the vehicle manufacturer is very interested in the unique construction, and in this initial project, Smoltek Hydrogen has delivered a specially manufactured and customized cell material for testing and evaluation.

- We have manufactured customer-specific prototypes where our carbon nanofibers were first covered with platinum, and then we applied iridium according to the customer's wishes, says Ellinor Ehrnberg, CEO of Smoltek Hydrogen.

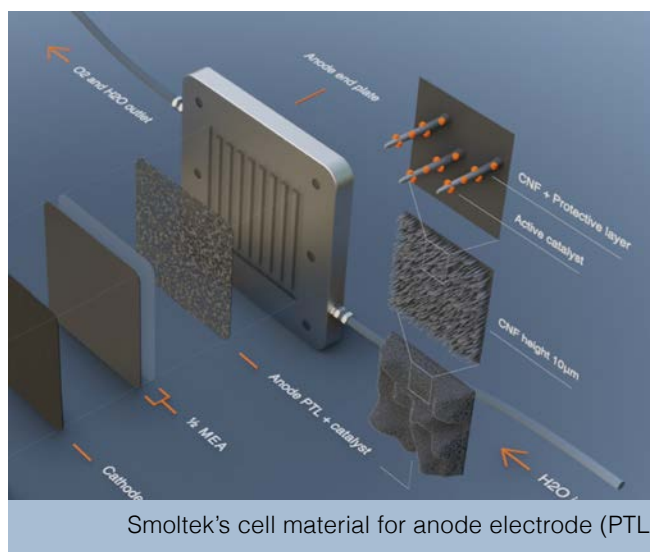


Ellinor Ehrnberg, CEO of Smoltek Hydrogen

### Smoltek has the technology to make the production of green hydrogen profitable and is looking for capital-strong partners to scale up production of the company's nanomaterials

On June 11, it was announced that the company is looking for capital-strong partners to realize part of the value in the subsidiary Smoltek Hydrogen, in order to create the conditions to reach a market share for electrolyzer cell materials of about 30 percent in 2030, which would correspond to a turnover of about SEK 20 billion.

Smoltek Hydrogen has developed a cell material that has been proven to work well in long-term tests, and the company has a clear path to reaching the hydrogen industry's target for iridium in electrolyzer cells – which is set at 0.1 mg of iridium per square centimeter – by the year 2030. which is considered the level when large-scale production of PEM electrolyzers becomes commercially viable.



Smoltek's cell material for anode electrode (PTL)

Today, Smoltek Hydrogen does not know of any other industrially verified solution that is capable of producing hydrogen with the same low iridium load in the electrolyzer cell.

To take advantage of this technological lead, Smoltek Hydrogen is looking for capital-strong partners, in a bidding process, who can finance the remaining development and commercialization of the cell material, including scaling up production capacity. This process has been made concrete with Smoltek's ongoing bidding process for Smoltek Hydrogen, which is expected to take 6-12 months.

## Significant events – during and after the period

### Interview with Philip Lessner, CTO of Yageo Group

On June 13, an interview was published in which Louise Duker, Chief Product Officer at Smoltek Semi, talks with Philip Lessner, CTO at Yageo Group, about the future of the capacitor industry. In the interview, Philip Lessner also elaborates how the market and technology needs for ultra-thin capacitors look like and how Smoltek's CNF-MIM technology is very well suited for this market. Yageo remains very interested in Smoltek's CNF-MIM capacitors and sees great potential in using the technology in the future.

Link to the interview "The future for the capacitor industry" is found on: [www.smoltek.com/category/videos](http://www.smoltek.com/category/videos).



Louise Duker and Philip Lessner

### Smoltek Semi has the technology for the capacitors of the future and is looking for capital-strong partners to realize it

On June 14, a strategic update was published for the group company Smoltek Semi, whose CNF-MIM technology (carbon nanofiber capacitors) is one of the few alternatives to silicon capacitors, stating that the company is looking for capital-strong partners to industrialize the technology and scale up manufacturing to mass production.

Smoltek Semi's carbon nanofiber capacitors offer new revenue opportunities in several market segments, from premium sectors such as the mobile industry and advanced electronics to simpler applications such as RF filters. The annual turnover potential is estimated at approximately SEK 1 billion during the period 2030 to 2034.

Smoltek Semi's capacitors can be manufactured cost-effectively thanks to a CMOS-compatible production process that is cheaper than competing options and uses existing machinery at contract manufacturers. This enables partners to effectively address multiple segments with good profitability.

After the negotiations with Yageo unexpectedly ended in March 2024, Smoltek Semi has the opportunity to, in a bidding process, more broadly and more coordinated offer interested parties to submit bids for license agreements or the acquisition of all or part of the assets of Smoltek Semi. This is because there is no longer any exclusivity in the negotiations or bids for Smoltek's CNF-MIM technology.

### Smoltek's rights issue was subscribed to 86.4 percent without the use of underwriting and the company received SEK 22.4 million

On June 19, it was announced that Smoltek's rights issue was subscribed to a total of 86.4 percent and that the company will receive approximately SEK 22.4 million before issue costs.

- We in the management are, together with the board, very pleased to be able to announce that the outcome of the rights issue has been very good given the prevailing market conditions and that underwriters therefore did not have to be used. The issue proceeds from the rights issue give us the right conditions to continue the bidding process we previously communicated as well as for continued value-creating technology development. I would like to extend a big thank you to existing shareholders and at the same time welcome new shareholders who have chosen to participate and support us on the continued journey, says CEO Håkan Persson.

The final outcome showed that a total of 49,853,180 shares were subscribed through the rights issue, which corresponds to 86.4 percent. 38,559,930 shares were subscribed with the support of subscription rights (approx. 66.8 percent). Furthermore, 11,293,250 shares were subscribed without the support of subscription rights (approx. 19.6 percent). The subscription rate meant that no guarantee commitments were used. In total, 49,853,180 new shares were subscribed and the company will receive approximately SEK 22.4 million before issue costs.

The rights issue increased the number of shares in the company by 49,853,180 shares, from 23,074,203 shares to 72,927,383 shares. The company's share capital increased by approximately SEK 5,938,922.21, from approximately SEK 2,748,789.48 to approximately SEK 8,687,711.69. For existing shareholders who did not participate in the rights issue, this meant a dilution effect of approximately 68.36 percent.

## Significant events – during and after the period

### Other technological advances during the second quarter of the year

#### Smoltek Hydrogen has achieved an A4-size plasma

Smoltek Hydrogen has successfully rebuilt Smoltek's proprietary PECVD (Plasma Enhanced Chemical Vapor Deposition) tool, from its original round 6-inch diameter, to be compatible with an A4-size rectangular plasma size. This corresponds to a tripling of the area and stable plasma covering the entire A4 surface has been achieved.

This is a crucial step towards achieving industrial scalability of carbon nanofiber growth. The development of the industrial manufacturing concept for Smoltek Hydrogen's electrolyzer cell material is in its final stages, with the goal of completion in 2024.

*- By expanding our capacity in the PECVD tool, we gain useful knowledge that will prepare and also accelerate the transfer of the manufacturing recipes from lab-scale in the R&D tool to industrial technology in the Prototype Coater we will use for industrial-scale production. For that reason, it is a milestone that we were able to rebuild our system to A4 plasma and it is a big step towards a scalable industrial process, says Shafiq Kabir at Smoltek Hydrogen.*



Shafiq Kabir, Head of Volume Processes Smoltek Hydrogen

#### Smoltek has produced carbon nanofibers with hydrogen

In a project that took place during the spring, Smoltek Hydrogen investigated the possibility of growing carbon nanofibers using a hydrogen-based process instead of today's ammonia-based process. Something that could lead to a more environmentally friendly manufacturing process.

*- We have investigated the process for our production of carbon nanofibers, where we have adjusted the*

*manufacturing recipe (plant recipe) to be able to use hydrogen as input gas instead of ammonia. This approach could potentially pave the way for a more circular economy, where the green hydrogen gas generated in a PEM electrolyzer is reused as one of the gases in the production of carbon nanofibers. These nanofibers are in turn included in the cell material of new electrolyzer cells, says Shafiq Kabir.*

### Significant events after the period

#### New patent that improves the capacitance density of the company's CNF-MIM capacitors

On July 2, it was announced that Smoltek has received a new patent – the first in a new patent family called Multilayer Cap. The new innovation concerns a MIM capacitor unit that can double or triple the capacitance density of the company's CNF-MIM capacitors. This patent is considered important both for Smoltek's business and technological progress.

*- Capacitance density is one of the most important characteristics for our CNF-MIM capacitor technology. In this new patent, we introduce a technology that doubles or triples the capacitance density through an innovative multilayer structure, says Farzan Ghavanini, CTO at Smoltek.*

#### Recalculation of warrants of series TO 8

On July 10, it was announced that the warrants of series TO 8 that were issued in connection with the company's targeted issues during the fourth quarter of 2023 have been recalculated due to the rights issue that ended on June 17, 2024. Recalculation has been made in accordance with the terms of the company's warrants of series TO 8 regarding subscription price and number of shares that each warrant entitles to subscribe. After conversion, each warrant gives the right to subscribe for 1.53 new shares in the company at a subscription price of SEK 2.36 per share.

#### New patent in patent family Discrete CNF-MIM granted

On August 13, it was announced that Smoltek had been granted another patent approval in the Discrete CNF-MIM family. This patent family protects an innovation that fully utilizes and benefits from the extraordinary surface-to-volume ratio that Smoltek's carbon nanofibers provide to create an MIM capacitor with unprecedented high capacitance density.



## Strategic bidding process started

**Smoltek announced in a press release from May 22 that the board has decided to initiate a process to obtain bids from interested parties regarding the potential sale of concepts and intangible assets within the semiconductor and hydrogen business areas, which are operated by the subsidiaries Smoltek Semi AB and Smoltek Hydrogen AB respectively. Alternatively, all or parts of these subsidiaries may be divested. According to Smoltek's board, this procedure has the potential to realize all or part of the significant value that has been generated in these subsidiaries and can thereby provide the company with liquid funds for continued investment and establishment of new business areas. The bidding process is estimated to take approximately 6–12 months.**

Work on the bidding process has been going on since the beginning of June when a project group was appointed. The group consists of key people in the company, a representative from the board and external consultants.

The consultants act as advisors and have been contracted to assist in producing relevant investor material and identifying relevant investors and partners, as well as evaluating these based on what they can bring to Smoltek's business areas.

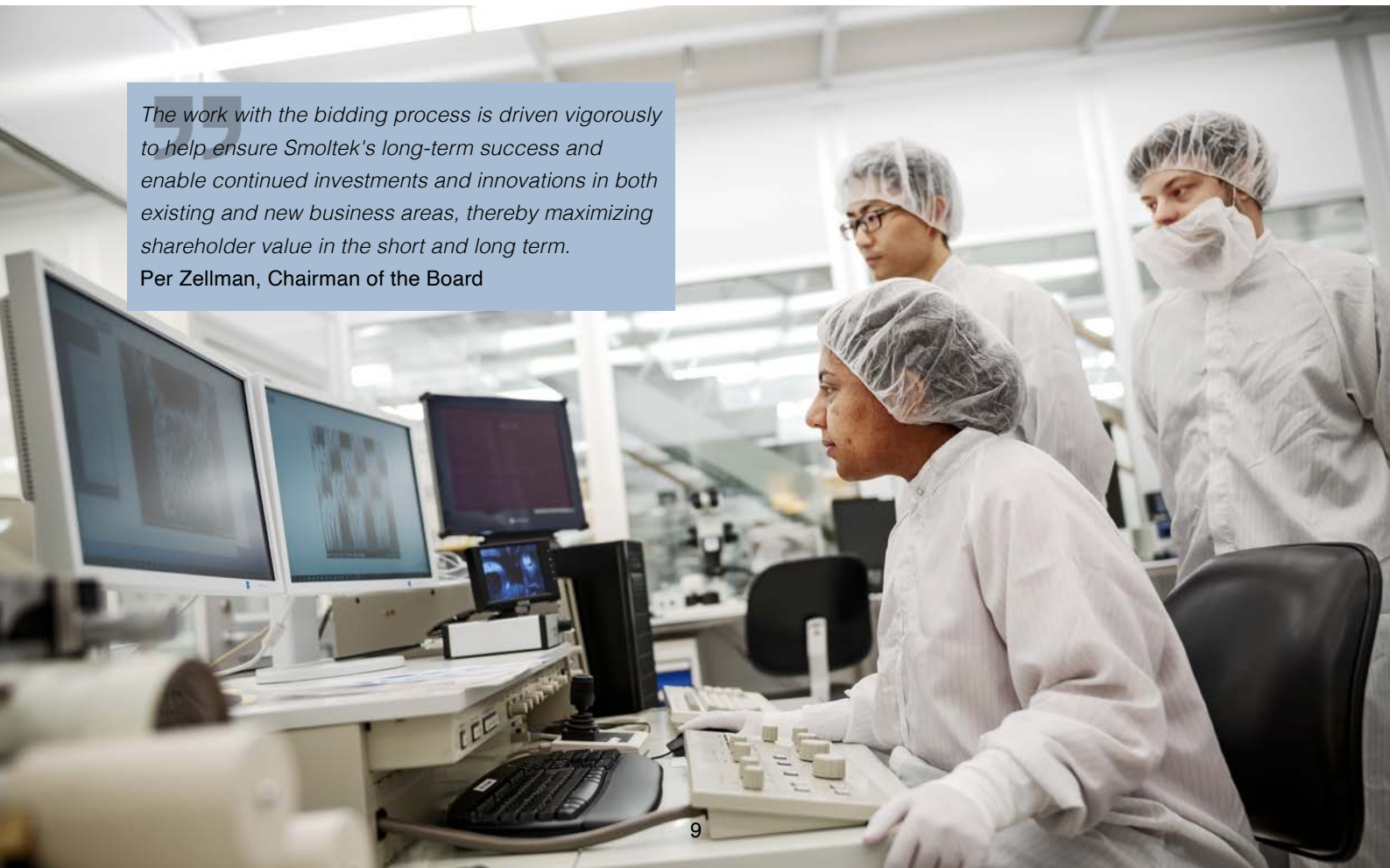
The project group has reviewed and updated the group's and group companies' strategies for industrialization and commercialization as well as the respective companies' financial model.

*- We have started by updating our business descriptions and the presentation of the business models to position each business area, so that it is possible to set a fair value on the various subsidiaries given their market potential and the concepts and intangible assets that have been developed, says Håkan Persson CEO and president of Smoltek.*

In the initial probing, different types of investors have been contacted and grouped based on investor profile and how they fit with Smoltek's subsidiary's current position and future needs to maximize the likelihood of reaching a transaction.

*The work with the bidding process is driven vigorously to help ensure Smoltek's long-term success and enable continued investments and innovations in both existing and new business areas, thereby maximizing shareholder value in the short and long term.*

**Per Zellman, Chairman of the Board**



## Operations and market – Smoltek’s market potential

Smoltek has developed a patent-protected technology that can make materials and components in several industrial sectors thinner, more energy efficient, more powerful as well as cheaper to produce.

Through precision manufacturing of extremely thin, conductive, carbon nanofibers in various three-dimensional structures, our technology creates films of vertical carbon nanofibers that provide a several times larger contact area, and thereby better performance, compared to a conventional flat surface.

In practice, our technology multiplies the physical surface area that can be coated with different types of materials. This creates opportunities for more efficient surface properties in several areas where today’s solutions and materials limit performance and efficiency. This means that we can take maximum advantage of our position as a pioneering technology developer in the field of controlled growth of nanostructures.

Smoltek’s pioneering technology platform – for precision manufacturing of carbon nanostructures – gives us very good opportunities to develop innovative solutions in a large number of application areas. However, prioritization is required – and we have currently chosen to focus on two business areas: Semiconductors and Hydrogen.

Both these areas carry enormous potential for the company, as there is a great need for new innovative solutions, and where a lot of development takes place and is required to take the end products to the next level. And this fits well with Smoltek’s strengths to develop surface-efficient products with high performance.

### Smoltek’s business model

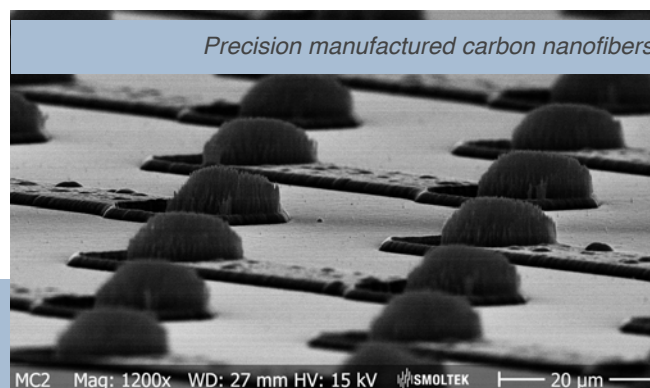
Historically, our business model has been to license the company’s IP and know-how for the development of process technology and application concepts. Today, however, we have broadened the company’s business model to also include volume sales of products. This includes unique process steps as well as complete production processes owned by Smoltek, subcontractor chains as well as finished products.

Industrialization and commercialization of new technology is both time-consuming and cost-driven, which means that Smoltek needs to sign various types of agreements where

the company’s technology concept is developed in collaboration with financially strong partners, who are now invited to a bidding process for all or parts of the business.

### IP-strategy

We use a global patent strategy to protect our technology platform in all important markets. The strategy includes both core patents and more tailored patent protection at the application level. We have a steadily growing patent portfolio which currently consists of around 110 filed patents, in 20 different patent families, within which 89 patents are granted by June 30 2024.



*Precision manufactured carbon nanofibers*

### Smoltek Nanotech – group structure

Smoltek was founded in December 2005 in connection with the filing of the first patent – manufacturing of nanostructures, one of the company’s core patents.

In February 2018, Smoltek Nanotech Holding AB was listed on the Spotlight Stock Market in Stockholm, Sweden.

The Group’s corporate structure has today developed to consist of three subsidiaries:

- Smoltek AB: holds and develops the patent portfolio
- Smoltek Semi AB: targets the semiconductor industry with a special focus on capacitors for semiconductors
- Smoltek Hydrogen AB: targets the hydrogen industry, with a special focus on developing a new electrode cell material for electrolyzers

## Operations and market – potential Smoltek Semi

Since the company was founded, Smoltek has focused on developing technology specifically for the semiconductor industry. After early development projects in various application areas, the semiconductor market showed greatest interest in our technology for extremely thin capacitors, called CNF-MIM.

The potential customer base for Smoltek's capacitor technology consists of a small number of very large capacitor manufacturers, or manufacturers of semiconductor packages (advanced packaging alt. heterogeneous integration). Possible applications for our capacitors are many and varied. Some examples are mobile phones, data centers or automotive electronics.

The business area is run by Smoltek Semi, which has had a far-reaching collaboration with the Yageo Group, one of the world's largest manufacturers of passive components (a capacitor is a passive component). Together, the two companies have conducted technology development with the aim of commercializing different types of capacitors based on the CNF-MIM technology platform.

The collaboration is now solely focused on technology development of the next generation of capacitors. At the same time, Smoltek Semi is part of the bidding process (read more on page 9) to find new alternatives to Yageo for commercialization.

### The market for capacitors

The market for our capacitor technology is primarily in the areas of semiconductors and integrated circuits as it is specially designed to offer high capacitance values in a very compact form factor.

*Examples of areas of application are:*

**Consumer electronics** – Smartphones, tablets and portable devices where the capacitors are used in the application processor, which place high demands on the combination of high performance in a small form factor. With our technology for ultra-thin capacitors, we can become a leading technology supplier in this segment, as we can meet those requirements. It enables, for example, our capacitors to be placed closer to the application processor compared to competing technologies, which is very important for, like for example, mobile phone manufacturers as it increases system performance (AP/SoC – System on Chip\*).

**The automotive industry** – Our capacitors are suitable for various electrical systems in the automotive industry where technology has become more advanced, with extensive software implementation and many complex safety systems. This means that there are strict requirements for stable voltage levels and reliable function of important components, which are challenges our capacitor technology can meet.

**The aerospace and defense industry** – Technology developments require high-performance capacitors to meet the strict specifications found in radar systems, communications equipment, and other avionics.

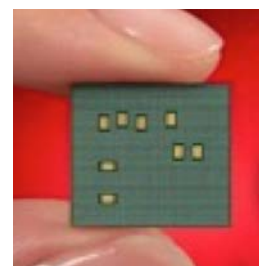
**Radio frequency (RF)** – Our technology can be used in so-called RF circuits where there are high requirements for a very small form factor. In RF, our technology can be used to control impedance (electrical resistance to alternating current) and improve the performance of wireless communication devices such as mobile phones and Wi-Fi routers.

**Industry and manufacturing** – In industrial automation and control systems, our capacitor technology can be used to ensure the high demands placed on stable and accurate voltage levels, contributing to the reliability of manufacturing processes.

In summary, our technology is driven by the increasing demand for miniaturized, high-performance electronic devices in a variety of industries. As the development of semiconductor technology continues and the need for smaller and more efficient components increases, we expect the market for our capacitor technology to expand.

Today, we focus particularly on the mobile market (consumer electronics), where the need for small form factors and high performance represents significant challenges and opportunities.

As an example, the market for landside-mounted decoupling capacitors for application processors in premium priced mobile phones is predicted to have an expected average annual growth rate of about 3.6% CAGR, increasing from about 3.6 billion decoupling capacitors in 2023 to about 4.6 billion decoupling capacitors in 2030.



Qualcomm Snapdragon 8 chip with 8 Landside-mounted capacitors

\* AP/SoC is a type of integrated circuit (IC) design that combines many, or all, high-level functional elements of an electronic device on a single chip, rather than using separate components mounted on a motherboard as is done in traditional electronics design.

## Operations and market – potential Smoltek Hydrogen

Within the hydrogen business area, which is run by the group company Smoltek Hydrogen, we develop a nanofiber-based cell material for PEM electrolyzers, the system that uses renewable electricity to split water into oxygen and hydrogen.

### Huge market for green hydrogen and electrolyzers

Hydrogen as a fossil-free raw material and energy carrier is one of the keys to the ongoing electrification and the reduction of fossil fuels in order to reach the goals of net zero emissions.

Today, large amounts of fossil hydrogen are used in several energy-intensive industrial sectors, all of which need to switch to fossil-free energy in the near future.

In 2023, 5 million tons of fossil-free hydrogen were produced (about 5% of total hydrogen production), and in 2030 the hydrogen industry aims to produce close to 40 million tons of fossil-free hydrogen\*. This means that there is a great demand for the development of new technology to get more cost-effective electrolyzers to be able to produce fossil-free hydrogen.

### Smoltek Hydrogen can reduce the iridium coating

Our proprietary cell material (ECM) is developed to reduce the iridium coating in the anode electrode of the electrolyzer cell and can reduce the amount of extremely rare and expensive iridium particles in PEM electrolyzers by up to 95%, compared to today's standard materials.

Thanks to the fact that the material consists of large amounts of vertical nanofibers, a coatable surface that is

up to 30 times larger compared to today's materials is created. This means that we can coat our nanofibers with iridium particles much more effectively and thus reduce the amount of iridium in the electrolyzer.

Significantly reducing the iridium coating will lower the cost of the electrode material by tens of thousands of SEK per square meter.

We can also increase the capacity per surface in the cell by using longer fibers. With longer fibers, more iridium can be coated and thus the number of cells in the electrolyzer can be reduced.

Fewer cells provide another significant cost-saving for PEM electrolyzer manufacturers.

### We can match the goals of the electrolyzer industry

In March 2023, we proved that our coating technology can produce the same amount of hydrogen with only 0.5 mg iridium/cm<sup>2</sup> compared to a standard material, which uses about 2.5 mg iridium/cm<sup>2</sup>. Since then we have continued development and this spring a successful long-term test was carried out where we produced hydrogen with only 0.2 mg iridium/cm<sup>2</sup> - this means that we are now approaching the hydrogen industry's final goal of 0.1 mg iridium/cm<sup>2</sup>, which is a prerequisite for the industry to scale up the manufacturing of PEM electrolyzers.

Smoltek Hydrogen is part of the bidding process (page 9).



1. Nanofibers  
2. Corrosion protection  
3. Iridium particles

Fossil-free substitute for natural gas	Raw material for fossil-free steel production	Synthetic fuels (electro fuels) for marine transports	Fuel cells in electric vehicles for better range
Solar energy shipments from deserts (in pipelines)	Balancing of the electrical system for intermittent energy sources	Raw material for fossil-free cement production	Raw material for the production of fossil-free fertilizer

Industry sectors for green hydrogen production – markets for electrolyzers

\* Source: Hydrogen Council

## Financial outcome

### Turnover

Net sales during the first half of the year amounted to SEK 1,776 thousand (3,056). And for the second quarter of the year to SEK 102 thousand (1,651).

### Expenses

Operating expenses during the same periods were SEK -25,374 thousand (-33,638) and SEK -9,154 thousand (-15,782), respectively.

### Results

The group's result after financial items for the first half of 2024 was SEK -16,255 thousand (-28,091). For the second quarter, the result after financial items amounted to SEK -7,173 thousand (-13,097).

### Cash flow and financial status

Cash flow from operating activities for the period January to June amounted to SEK -16,370 thousand (-23,446).

Cash and cash equivalents including short-term investments amounted to SEK 3,857 thousand (48,126) at the end of the period.

### Financing

Long-term interest-bearing liabilities amounted to SEK 682 thousand (693) and refer to a seed loan granted by the Västra Götaland region in 2006.

### Investments

Investments in intangible fixed assets in total in the group amounted to SEK 66.2 million on June 30, 2024, distributed between the subsidiaries Smoltek AB (71%) and Smoltek Hydrogen AB (29%). The investments refer to further development of the company's own technology.

In terms of investments in tangible fixed assets, the group has, up to and including 30 June 2024, invested approximately SEK 15.2 million.

### Additions

During Q2, the parent company added SEK 0.5 million to the subsidiaries Smoltek Hydrogen AB and SEK 2.5 million to Smoltek Semi AB.

### Key ratios

(SEK thousand)

	Q2 2024	Q2 2023
Return on equity	-16.2%	-27.1%
Return on total capital	-14.7%	-22.5%
Solidity	90.9%	83.0%
Cash liquidity	81.1%	249.5%

## Additional financial information

### The share

Smoltek Nanotech Holding AB has been listed on Spotlight under the short name SMOL since 2018. The company had approximately 2,400 shareholders as of the end of June 2024 and the number of shares amounted to 23,074,203. After completed rights issue and compensation issue, at the end of June, at the date of this report, the number of shares amounts to 76,814,040.

### Warrants

Outstanding warrants as of June 30, 2024\*:

Gustav Brismark	41,332
Håkan Persson	27,946
Per Zellman	21,500
Emma Rönmark	555
Ellinor Ehrnberg	41,477
Pia Tegborg	5,000
Others	40,000
TO 8 (excl. board/management TO 8, which are counted for above)	3,546,842
<b>Total</b>	<b>3,584,687</b>

\* The warrants may be subject to recalculation.

### Intangible assets

The company's most important assets are intangible assets in the form of patents, know-how and demonstrated technical performance. The balance sheet item is recorded at incurred costs and amounts to SEK 66.2 million. It is the board's assessment that the true value is higher. The comparisons the company has made with similar companies' intellectual property rights and development support this assumption.

### Future prospects

The company has started a strategic process to receive bids from interested parties for all or parts of the operational activities run by the subsidiaries Smoltek Semi AB and Smoltek Hydrogen AB.

Smoltek Semi has developed a new technology generation for the company's CNF-MIM capacitors and will, in collaboration with Yageo, complete a further development (Gen-One) of these capacitors in autumn 2024, which is expected to have capacitance density on par with leading competitors.

Smoltek Hydrogen has several partner collaborations for the company's cell material for PEM electrolyzers. Among other

things, one of the world's largest vehicle manufacturers is testing the material.

The strategic work to develop and strengthen the patent portfolio continues and during the first half of the year seven new patents have been granted.

### Accounting principles

This report has been prepared in accordance with the Annual Accounts Act and the Accounting Board's General Council, BFNAR 2012:1 (K3) and the accounting principles are unchanged compared to the previous year.

### Annual report, general meeting and dividend

Annual report for 2023 was published on April 23, 2024 and is available on the company's website. A printed version of the annual report can be sent by post, on request emailed to [info@smoltek.com](mailto:info@smoltek.com).

The general meeting for the 2023 financial year was held in Gothenburg on 14 May 2024. The meeting approved the board's proposal that no dividend be paid for 2023.

### Going concern – Affirmation by the board

The board and the managing director assure that this interim report provides a fair overview of Smoltek Nanotech Holding AB's operations, position and results. The board and the managing director continuously monitor the company's financial position and opportunities for additional financing from partners.

*Gothenburg, 2024-08-29*

Per Zellman, chairman of the board  
Gustav Brismark, board member  
David Gramnaes, board member  
Emma Rönmark, board member  
Håkan Persson, CEO

### Risks and uncertainties

Smoltek Nanotech Holding AB's results and financial position are affected by various risk factors that must be taken into account when assessing the company and its future potential. These risks are discussed in the annual report for 2023.

## Consolidated income statement in summary

Smoltek Nanotech Holding AB incl. subsidiary

(SEK thousand)	Apr-jun 2024	Apr-jun 2023	Jan-jun 2024	Jan-jun 2023	Full year 2023
Net sales	102	1,651	1,776	3,056	8,457
Activated own-account work	855	1,050	1,854	2,485	4,256
Other operating income	546	0	4,915	26	481
Operating costs	-9,154	-15,782	-25,374	-33,638	-65,567
<b>Operating profit / loss</b>	<b>-7,651</b>	<b>-13,081</b>	<b>-16,829</b>	<b>-28,071</b>	<b>-52,373</b>
Profit / loss from financial items	479	-16	574	-20	-1,044
<b>Profit / loss for the period</b>	<b>-7,173</b>	<b>-13,097</b>	<b>-16,255</b>	<b>-28,091</b>	<b>-51,329</b>
<b>Earnings per share after tax</b>	<b>-0.31</b>	<b>-0.90</b>	<b>-0.71</b>	<b>-1.95</b>	<b>-3.33</b>

## Consolidated balance sheet in summary

*Smoltek Nanotech Holding AB incl. subsidiary*

(SEK thousand)

	2024-06-30	2023-06-30	2023-12-31
<i>Assets</i>			
Capital subscribed but not paid in*	21,705	0	0
Intangible fixed assets	66,196	64,486	64,749
Tangible fixed assets	15,161	9,069	14,335
Current receivables	3,734	3,059	5,385
Other short-term receivables	0	22,755	10,802
Cash and cash equivalents	3,857	25,371	17,880
<b>Total assets</b>	<b>110,653</b>	<b>124,740</b>	<b>113,151</b>
<i>Equity and liabilities</i>			
Equity	100,607	103,533	95,194
Long-term liabilities	682	693	682
Current liabilities	9,363	20,514	17,274
<b>Total equity and liabilities</b>	<b>110,653</b>	<b>124,740</b>	<b>113,151</b>
<b>Equity/assets ratio</b>	<b>90.9%</b>	<b>83.0%</b>	<b>84.1%</b>

\* Refers to rights issue carried out in June, registered at the beginning of July.



## Consolidated statement of cash flows

Smoltek Nanotech Holding AB incl. subsidiary

(SEK thousand)

	Jan-jun 2024	Jan-jun 2023	Full year 2023
<b>Operating activities</b>			
Operating profit / loss	-16,829	-28,071	-52,373
Items not affecting cash flow	6,146	5,952	12,012
Profit / loss from financial items	574	-20	-3
<b>Cash flow from operating activities before changes in working capital</b>	<b>-10,109</b>	<b>-22,139</b>	<b>-40,364</b>
<b>Changes in working capital</b>			
Change in receivables	1,650	280	-2,046
Changes in current liabilities	-7,911	-1,587	-4,022
<b>Cash flow from operating activities</b>	<b>-16,370</b>	<b>-23,446</b>	<b>-46,432</b>
<b>Investment activities</b>			
Intangible assets	-6,866	-5,315	-10,979
Tangible assets	-1,553	-1,153	-7,078
Sale short-term investments	10,802	0	13,000
<b>Cash flow from investment activities</b>	<b>2,383</b>	<b>-6,468</b>	<b>-5,057</b>
<b>Financing activities</b>			
Issue of shares (rights issue)	692	7,239	22,546
Issue costs	-728	-296	-1,509
Change in long-term liabilities	0	-11	-21
<b>Cash flow from financing activities</b>	<b>-36</b>	<b>6,932</b>	<b>21,015</b>
Change in cash and cash equivalents	-14,023	-22,982	-30,473
Cash opening balance	17,880	48,353	48,353
<b>Cash closing balance</b>	<b>3,857</b>	<b>25,371</b>	<b>17,880</b>

## Consolidated changes in equity

Smoltek Nanotech Holding AB incl. subsidiary

(KSEK)

	Share capital	Other contributed capital	Other equity including net loss for the period	Total equity
<b>Opening balance 2023-01-01</b>	<b>1,690</b>	<b>226,693</b>	<b>-103,701</b>	<b>124,681</b>
Issuance of shares (use of TO 7)	242	6,996		7,238
Issue of shares (directed issue 1)	760	14,548		15,308
Receipt issue (not reg. share capital)	22	783		805
Issue costs		-1,509		-1,509
Profit / loss for the period			-51,329	-51,329
<b>Closing balance 2023-12-31</b>	<b>2,714</b>	<b>247,511</b>	<b>-155,031</b>	<b>95,194</b>
Issue of shares (directed issue 2)	34	658		692
Rights issue (not reg. Share capital)	5,939	16,495		22,434
Receipt issue (not reg. share capital)	463	1,286		1,749
Issue costs		-3,206		-3,206
Profit / loss for the period			-16,255	-16,255
<b>Closing balance 2024-06-30</b>	<b>9,151</b>	<b>262,744</b>	<b>-171,286</b>	<b>100,608</b>

## Parent company income statement

*Smoltek Nanotech Holding AB*

(SEK thousand)	<b>Apr-jun 2024</b>	<b>Apr-jun 2023</b>	<b>Jan-jun 2024</b>	<b>Jan-jun 2023</b>	<b>Full year 2023</b>
Net sales	2,417	2,123	4,560	4,581	8,760
Other operating income	493	795	1,127	1,664	2,896
Operating expenses	-3,626	-6,595	-10,059	-13,952	-24,988
<b>Operating profit / loss</b>	<b>-716</b>	<b>-3,677</b>	<b>-4,372</b>	<b>-7,707</b>	<b>-13,331</b>
Profit / loss from financial items	917	702	1,392	1,292	-77,945
<b>Profit / loss for the period</b>	<b>200</b>	<b>-2,975</b>	<b>-2,980</b>	<b>-6,414</b>	<b>-91,276</b>

## Parent company balance sheet

Smoltek Nanotech Holding AB

(SEK thousand)

	2024-06-30	2023-06-30	2023-12-31
<i>Assets</i>			
Capital subscribed but not paid in*	21,705	0	0
Shares in group companies	75,940	80,314	69,940
Long-term receivables at group companies	26,461	67,140	26,168
Current receivables from group companies	10,918	2,995	2,955
Other current receivables	1,240	1,225	1,526
Other short-term investments	0	22,755	10,802
Cash and cash equivalents	1,198	14,828	8,612
<b>Total assets</b>	<b>137,462</b>	<b>189,256</b>	<b>120,003</b>
<i>Equity and liabilities</i>			
Equity	132,455	183,729	113,767
Current liabilities	5,007	5,527	6,236
<b>Total equity and liabilities</b>	<b>137,462</b>	<b>189,256</b>	<b>120,003</b>
<b>Equity/assets ratio</b>	<b>96.4%</b>	<b>97.1%</b>	<b>94.8%</b>

\* Refers to rights issue carried out in June, registered at the beginning of July.

## Parent company statement of cash flows

Smoltek Nanotech Holding AB

(SEK thousand)

	Jan-jun 2024	Jan-jun 2023	Full year 2023
<b>Operating activities</b>			
Operating profit / loss	-4,372	-7,707	-13,331
Profit / loss from financial items	597	0	62
<b>Cash flow from operating activities before changes in working capital</b>	<b>-3,775</b>	<b>-7,707</b>	<b>-13,269</b>
<b>Changes in working capital</b>			
Current receivables group	-7,962	-612	-573
Changes in receivables	285	-307	-608
Changes in current liabilities	-1,229	1,176	2,690
<b>Cash flow from operating activities</b>	<b>-12,682</b>	<b>-7,450</b>	<b>-11,761</b>
<b>Investment activities</b>			
Changes in receivables from group companies	-5,498	-16,000	-45,000
Sale short-term investments	10,802	0	13,000
<b>Cash flow from investment activities</b>	<b>5,304</b>	<b>-16,000</b>	<b>-32,000</b>
<b>Financing activities</b>			
Issue of shares (rights issue)	692	7,239	22,546
Issue costs	-727	-296	-1,509
<b>Cash flow from financing activities</b>	<b>-35</b>	<b>6,943</b>	<b>21,037</b>
Change in cash and cash equivalents	-7,414	-16,508	-22,724
Opening balance	8,612	31,336	31,336
<b>Closing balance</b>	<b>1,198</b>	<b>14,828</b>	<b>8,612</b>

## Parent company changes in equity

Smoltek Nanotech Holding AB

(SEK thousand)

	Restricted equity	Unrestricted equity incl. net loss for the period	Total equity
<b>Opening balance 2023-01-01</b>	<b>1,690</b>	<b>181,511</b>	<b>183,201</b>
Issuance of shares (use of TO 7)	242	6,996	7,238
Issue of shares (directed issue 1)	760	14,548	15,308
Receipt issue (not reg. share capital)	22	783	805
Issue costs		-1,509	-1,509
Profit / loss for the period		-91,276	-91,276
<b>Closing balance 2023-12-31</b>	<b>2,714</b>	<b>111,053</b>	<b>113,766</b>
Issue of shares (directed issue 2)	34	658	692
Rights issue (not reg. Share capital)	5,939	16,495	22,434
Receipt issue (not reg. share capital)	463	1,286	1,749
Issue costs		-3,206	-3,206
Profit / loss for the period		-2,980	-2,980
<b>Closing balance 2024-06-30</b>	<b>9,150</b>	<b>123,306</b>	<b>132,455</b>

## Financial Calendar

- Interim report Q3 2024 will be published 2024-11-05
- Interim report Q4 2024 will be published 2025-02-20
- Interim report Q1 2025 will be published 2025-04-29

### Audit Report

This report has not been subjected to review by the company's auditors.

**Smoltek Nanotech Holding AB** is listed on Spotlight Stock Market since 2018-02-26 under the ticker SMOL.

### For further information

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Göteborg 2024-08-29

The Board



Gustaf Brismark

David Gramnaes

Emma Rönnmark

Per Zellman



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