SMOLTEK

# QUARTERLY REPORT

Smoltek Nanotech Holding AB
JULY-SEPTEMBER 2022

# Smoltek Nanotech Holding AB, Q3 2022

## ABOUT SMOLTEK

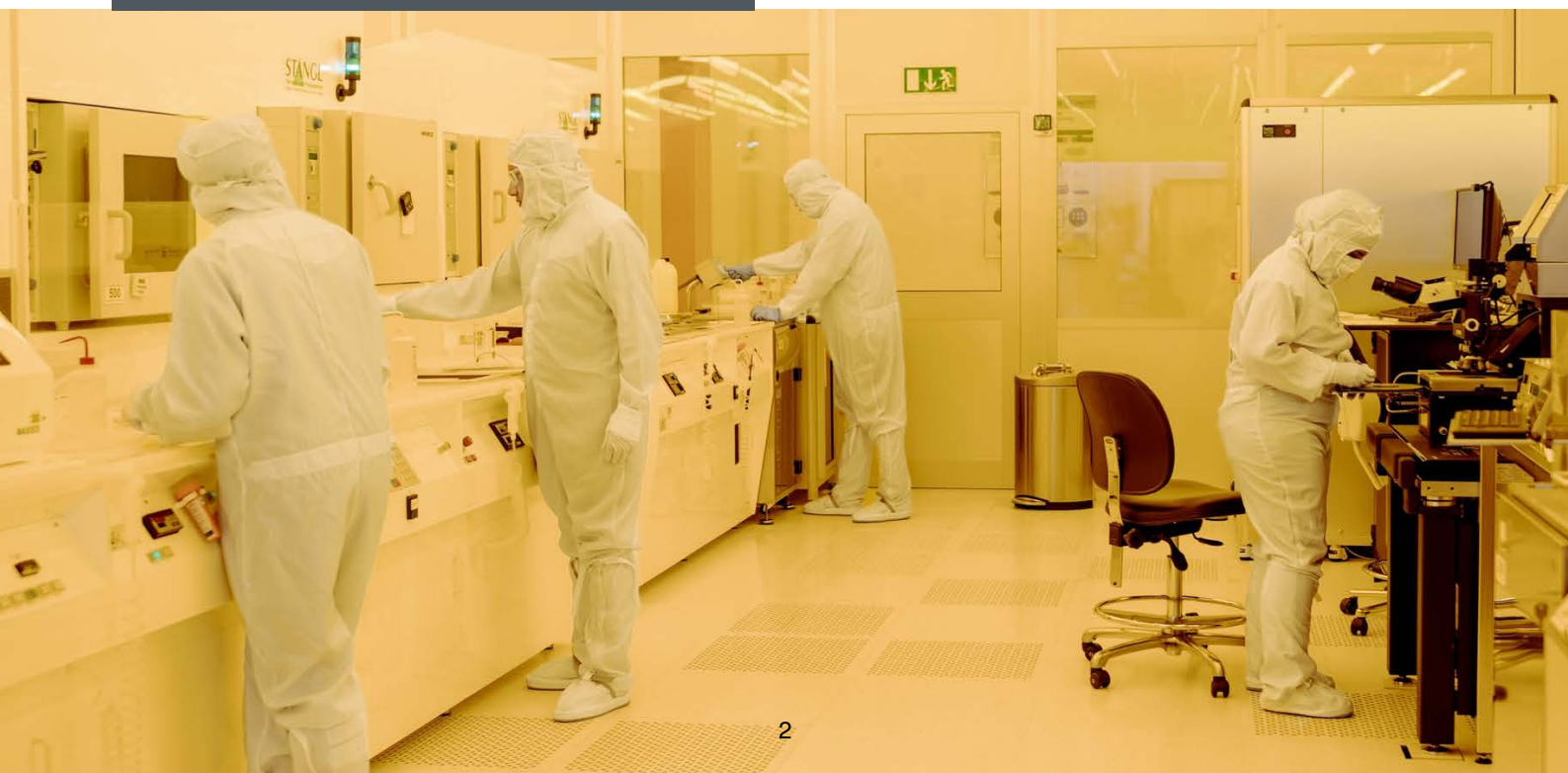
Smoltek develops process technology and concepts for applications based on carbon nanotechnology to solve advanced materials engineering problems in several industrial sectors.

The unique technology enables manufacturing of components with smaller form factors, higher performance and lower energy supply in the semiconductor industry, where Smoltek today concentrates on developing technology for ultra-thin capacitors. Smoltek also sees great potential in the hydrogen industry, where the company today focuses on developing high-performance cell materials for electrolyzers for cheaper and more efficient hydrogen production.

Smoltek protects its unique technology platform through an extensive and growing patent portfolio consisting of approximately 110 applied patents, of which 77 are granted. Smoltek's share is listed on Spotlight Stock Market under the short name SMOL.

## CONTENT





# Quarterly Summary (Group)

**JANUARY – SEPTEMBER**

- Net sales: SEK 1 002 thousand (995)
- Earnings before tax: SEK -32,353 thousand (-16,195)
- Earnings per share, before dilution: SEK -3.49 (-2.00)
- Earnings per share, after possible dilution: SEK -3.23 (-1.69)
- Number of shares outstanding: 9,282,895 (8,114,817)
- Number of shares after possible exercise of warrants: 9,496,878 (9,597,218)
- Total equity: SEK 104,225 thousand (123,501)
- Cash and cash equivalents: SEK 50,498 thousand (61,878)
- Equity ratio: 80.7% (94.6%)

**THIRD QUARTER**

- Net sales: SEK 1 002 thousand (418)
- Operating profit/loss: SEK -12,139 thousand (-3,129)
- Earnings per share, before dilution: SEK -1.31 (-0.39)
- Earnings per share, after possible dilution: SEK -1.09 (-0.33)
- Smoltek and Yageo have signed a Joint Development Agreement for the commercialization of CNF-MIM capacitors
- Global medical technology company has ordered a proof-of-concept study of Smoltek's nanotechnology
- The Board of Directors has conditionally resolved upon a preferential rights issue of approximately SEK 67 million which was approved by an extraordinary general meeting
- Smoltek Innovation has changed its name to Smoltek Hydrogen
- 1 new patent granted

**REVENUES AND RESULTS THIRD QUARTER**

Net sales during the period amounted to SEK 1.0 thousand (0.4). Operating loss was SEK -12.1 million (-3.1). Earnings per share before dilution were SEK -1.31 (-0.39). Earnings per share after possible dilution were SEK -1.09 (-0.33).

**LIQUIDITY AND FINANCIAL POSITION**

The company's cash and cash equivalents at the end of the period amounted to SEK 50.5 million (61.9). Long-term interest-bearing liabilities amounted to SEK 731 thousand (758). The equity/assets ratio was 80.7 percent (94.6).

**EQUITY AND NUMBER OF SHARES**

Equity at the end of the period amounted to SEK 104,225 thousand (123,501) distributed on 9,282,895 shares.

**EMPLOYEES**

The annual number of employees was 19 (13).

**SHARES AFTER POSSIBLE DILUTION**

When calculating the number of shares after possible dilution, outstanding warrants have been taken into account under the condition that they can be assumed to be redeemed.

# Preferential rights issue to take Smoltek to the next level

Dear Shareholders,

During the third quarter of the year, Smoltek made further progress in both of the company's business areas, ultra-thin capacitors for the semiconductor industry and high-performance cell material for electrolyzers for the hydrogen industry. We also started an evaluation collaboration, funded by a customer, within in the medical technology field. We also presented a planned preferential rights issue of approximately SEK 67 million that will take Smoltek to a completely new level both technically and commercially.

In the Semiconductors business area, we took a very important step forward in August within our collaboration with Yageo, a large global manufacturer of passive electronic components including capacitors. We did this by following up the signed MoU agreement with a Joint Development Agreement (JDA) for the completion of Smoltek's first ultra-thin capacitor product as well as mass production capacity in the discrete capacitor segment. With this agreement, we now have a complete and well-defined collaboration in place to bring our ultra-thin capacitors to market together with a perfect partner, who complements our technical innovation power with solid experience and global networks in mass production and sales of capacitors. The first product within the framework of the collaboration is a discrete decoupling capacitor for microprocessors in mobile phones and tablets, where we aim to reach an industrially manufactured thickness of only 40 micrometres.

With the signing of the development agreement, our group company Smoltek Semi received 1.5 million US dollars for the joint development, and we contribute, among other things, by including the industrial carbon growth machine that we ordered during the first quarter. We, as well as Yageo, are convinced that our ultra-thin capacitors represent a huge commercial opportunity in a global and growing billion-dollar market, as extremely thin and high-performance decoupling capacitors are a basic requirement for the performance of mobile processors to continue to increase at a rapid pace in the coming years. The collaboration was initiated with a project meeting in Gothenburg. The purpose of the meeting was to gather expertise and resources from Smoltek and Yageo for information exchange and to establish a common goal and agenda for the work to commercialize Smoltek's ultra-thin capacitors. The work was carried out with high energy and enthusiasm, which ensures strong progress in the project, not least from a market perspective. As previously communicated, the goal is to be able to receive orders in significant volume for ultra-thin capacitors as early as the end of 2024.

Within the Hydrogen business area, we have signed a collaboration agreement with a global manufacturer of input material for electrolyzers. Together, we will develop demonstrators for our highly efficient nanofiber-based cell material for PEM electrolyzers, and by integrating our material into a complete PEM electrolyzer cell we will also be able to carry out test runs and measurements of its performance. The initial results are expected already later this year, after which we will be able to verify, even more concretely than before, the ability of our cell material to contribute to a completely new level of performance and thus much lower costs for the production of green hydrogen. It is really exciting that we are now starting to establish ourselves within the extremely fast-growing green hydrogen economy, of which the market for electrolyzers alone is expected to amount to around SEK 650 billion globally in 2030 according to Global Market Insights*.

During 2022, Smoltek has developed rapidly in a positive direction, and we have achieved several important milestones in line with our strategic objectives. In order to maintain this high pace and establish Smoltek as a commercial industrial company, our Board of Directors decided in September to carry out a rights issue of approximately SEK 67 million with a subscription period between 2-16 November. The issue is guaranteed to approximately 65 percent through subscription commitments and underwriting commitments, and I myself will participate fully as I am very optimistic about the opportunity to take Smoltek to a whole new level, both technically and commercially. You can read more about our rights issue on page 11.

*Håkan Persson, CEO Smoltek Nanotech Holding AB*



** Global Market Insights länk: https://www.gminsights.com/pressrelease/electrolyzer-market*

# Significant events – during and after the period

### Significant events during the third quarter of 2022

**Proof-of-Concept study for medtech devices**
On July 13, it was announced that Smoltek has received an order to carry out a Proof-of-Concept study based on the company's unique carbon nanofiber technology, to solve a difficult materials engineering problem for a global medtech company. The order is worth 40,000 euros.

**Joint Development Agreement signed with Yageo to commercialize discrete capacitors**
On August 18, it was announced that the group company Smoltek Semi has entered into a Joint Development Agreement (JDA) with a subsidiary of Yageo Corporation (a global electronic component company), to commercialize discrete capacitors. The capacitors are based on Smoltek's patented CNF-MIM technology and will be fabricated using a proprietary nano-fiber synthesis machine and industrial silicon foundry processes. In conjunction with the signing of the JDA, Smoltek Semi received 1.5 MUSD to be used for development activities within the framework of the partnership with Yageo.

**Operational update for the Semiconductors business area**
On August 30, an operational update was published for the Semiconductors business area. The group company Smoltek Semi has made significant progress in the development of the technology for ultra-thin capacitors during the year. This has led to, for example, the Joint Development Agreement that was signed with the Yageo Group, which is expected to further accelerate the industrialization of Smoltek's ultra-thin capacitors. This is in line with the goal to be able to accept high-volume orders from the end of 2024.

**R&D engineer Maria Bylund keynote speaker at semiconductor conference**
On September 14, our R&D engineer Maria Bylund gave a keynote address at the international semiconductor and capacitor-oriented conference ESTC in Sibiu, Romania. The main focus of the conference was current advances and developments in the packaging and integration of electronic systems and components. Maria's speech was about Smoltek's CNF-MIM technology and how it enables the production of the world's thinnest capacitors, as well as how our ultra-thin capacitors – thanks to their high performance in combination with their thinness – can be used for more efficient and flexible packaging inside computers, tablets and mobile phones.

*Maria Bylund, R&D-engineer*

**Operational update for the Hydrogen business area**
On September 19, an operational update was published for the Hydrogen business area. During the first six months of the year, significant progress has been made within the development of the nanofiber-based cell material for electrolyzers. For example, a collaboration has been initiated with a global manufacturer of input material for electrolyzers for the joint construction of a PEM electrolyzer cell demonstrator to demonstrate the performance of the cell material.

Smoltek's carbon nanofiber-based cell material is intended to be included on the anode side of the cell stack in PEM electrolyzers. The three-dimensional structure of the cell material increases the current density to such an extent that the electrolyzer size can be reduced by up to a factor of three, while the usage of the expensive material iridium can be reduced by over 80%. Together, this makes it significantly cheaper to build new hydrogen plants, which is crucial for the rapid growth of what is being called the new green hydrogen economy – a market that is growing exponentially due to the huge investments that are now being made worldwide to enable the production of green hydrogen. For example, Global Market Insights Inc* estimates that the market for electrolyzers will be valued at around SEK 650 billion globally in 2030.

** Read more on page 10*

# Significant events – during and after the period

**Operations update fro the the Hydrogen business area**

- Construction of a PEM electrolyzer cell demonstrator to demonstrate the performance of the cell material.
- Manufacturing of demonstrators to evaluate production concepts
- Manufacturing of demonstrators to evaluate different types of corrosion protection
- Evaluation and measurement of test pieces (not entire cells) will also be conducted by a number of commercial players in the electrolyzer industry

**Hydrogen business organization update**

During the summer, two internal recruitments were carried out: Qi Li, PhD, as R&D Project Manager and Xin Wen, PhD, as Nanotechnology Scientist. Furthermore, Bastien Penninckx, from the University of Montpellier, has been recruited as a laboratory engineer. In October, Jaime S. Sanchez, PhD, assumed his position as Senior Corrosion and Catalyst Scientist. He comes most recently from the IMDEA Energy Institute in Madrid and is an international expert in the field.

**Board of Directors resolves upon a preferential rights issue of approximately SEK 67 million**

On September 21, it was announced that Smoltek's Board of Directors has conditionally resolved upon a rights issue of units of approximately SEK 67 million. The resolved preferential rights issue, subject to the approval of the extraordinary general meeting on October 24, 2022, is guaranteed to approximately 65 percent through subscription commitments and underwriting commitments. Notice to attend the extraordinary general meeting was published on September 22.

**Smoltek Innovation becomes Smoltek Hydrogen**

Smoltek Innovation AB has changed its name to Smoltek Hydrogen AB. The change of name is a logical next step as the innovation project around materials for electrolyzers and green hydrogen is now its own independent business area in Smoltek with its own staff and collaboration agreements with external parties. The next step in the business area is to start building prototypes together with potential customers and planning the first pilot plant for the production of cell material.

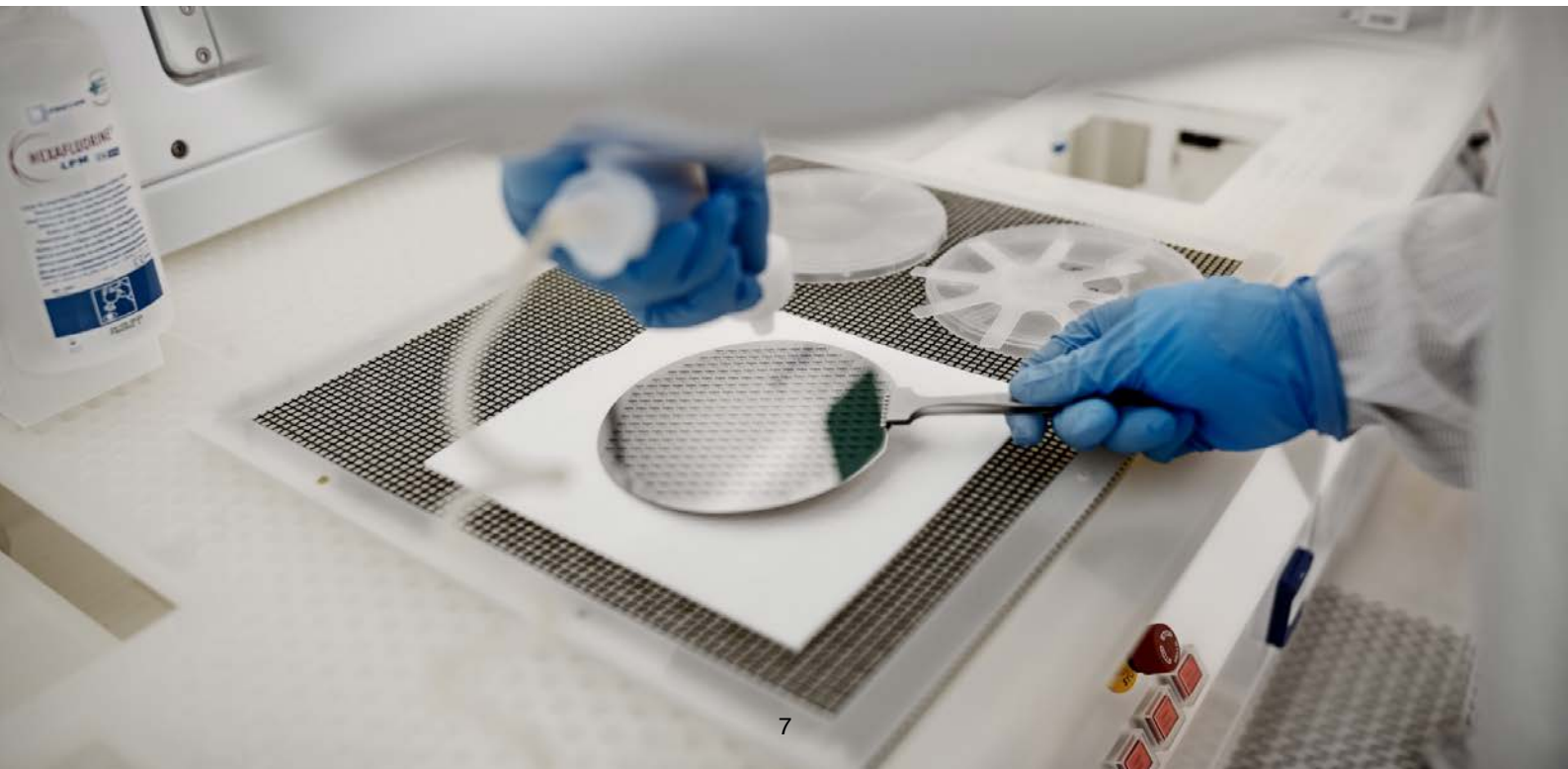
# Significant events – during and after the period

### Significant events after the period

**Smoltek and Yageo have begun the collaboration to commercialize Smoltek's decoupling capacitors**
On October 7, it was announced that the group company Smoltek Semi and the electronics component manufacturer Yageo, in a joint workshop in Gothenburg, have begun the work on commercializing Smoltek's ultra-thin carbon nanofiber capacitors. The first capacitor model being developed in this collaboration is a decoupling capacitor for application processors in next-generation mobile phones. The purpose of starting this collaboration in Gothenburg was to gather expertise and resources from Smoltek and Yageo for information exchange and to establish a common goal and agenda for the work to commercialize Smoltek's ultra-thin capacitors.

**Smoltek receives a sanction fee from the Swedish Financial Supervisory Authority**
On October 14, it was announced that the company has received a decision from Finansinspektionen (Sweden's financial supervisory authority) whereby the company is imposed an additional penalty fee of SEK 1.1 million. The sanction fee from Finansinspektionen is in addition to the previous sanction issued that Spotlight has issued against the company regarding violations of the EU's market abuse regulation in connection with the preferential rights issue which was carried out in the beginning of 2019. Smoltek intends to go through Finansinspektionen's decision with the company's legal advisor and then decide whether or not the company will appeal the decision.

**Report from the extraordinary general meeting**
On October 24, an extraordinary general meeting was held regarding the Board of Directors' proposal for raising capital, as published in a press release on September 21, 2022. The meeting decided to approve the Board of Directors' proposal of a new issue of shares and warrants (units) with preferential rights for existing shareholders.



# Operations and market – Smoltek's potential

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

These are two areas where 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.

**Operations and business model**
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, the holding company Smoltek Nanotech Holding AB was listed on the Spotlight Stock Market in Stockholm.

The Group's corporate structure has developed to, in addition to the holding company, consist of three subsidiaries:

- Smoltek AB: holds a patent portfolio and all R&D
- Smoltek Semi AB: targets the semiconductor industry with a special focus on ultra-thin capacitors
- Smoltek Hydrogen AB: targets the hydrogen industry, today with a focus on developing new high-performance cell materials for electrolyzers

Our operations and business model are based on a broad, patent-protected technology platform to, among other things, precision-grow conductive carbon nanostructures on different types of substrates and thereby enable better performance for different applications.

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. Therefore, we are now developing unique process steps as well as complete production processes owned by Smoltek, subcontractor chains as well as finished products. This means that we will be a more equal party with greater responsibility and control, from development to volume production. To respond to this, the company's organization is continuously being developed.

**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 77 patents are currently granted.

**International advisor**
To increase the opportunities to capitalize on our carbon nanofiber-based technology platform, we collaborate with DC Advisory, a leading global financial advisor with expertise in industrial transactions. DC Advisory has a broad network in the semiconductor and electronics industries as well as in other industrial segments. The agreement contributes to an increased global presence and opens up opportunities through strategic relationships in both existing and new application areas and industrial sectors.

# Operations and market – potential Semiconductors

**Operations and market – Semiconductors business area**

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 market showed greatest interest in our extremely thin capacitors (CNF-MIM).

The potential customer base for our capacitor technology consists of a small number of very large capacitor manufacturers. The goal is to collaborate with some of these players where they use our technology platform and production process for mass production of our ultra-thin capacitors. These collaborations will take place under license agreements, via joint ventures or via a product-based business model.

**Development of CNF-MIM technology**

In March 2021, we presented a prototype of the world's thinnest capacitor with a total height of 38.2 micrometres (including the necessary substrate). At the same time, the capacitor delivered the same high performance as our previous CNF-MIM-capacitors, with high energy storage capacity and low internal losses for the component, i.e. parameters that are in line with industry standard for competing capacitor technologies.

Another important characteristic when introducing new technology in the semiconductor industry is the degree of survival of the components and the expected service life in various harsh environments. In this area as well, our R&D team has further improved the CNF-MIM technology's parameters for reliability over the past year. Among other things, the failure rate of the capacitor samples has more than halved.

**The market for decoupling capacitors**

One of the sub-segments in the global semiconductor market is so-called "decoupling capacitors". These are used, among other things, in application processors for mobile phones. Within this sub-segment, very high demands are placed on the capacitor's performance and minimal form factor (read: extremely thin). And this is where our ultra-thin capacitors particularly excel; no one can make these thinner than we can.

In 2021, about 1.5 billion mobile phone application processors were produced, equivalent to a market value of 30 billion USD. Each application processor needs up to 10 decoupling capacitors, which in turn corresponds to a market volume of up to 15 billion decoupling capacitors per year.

**Agreement for product development and industrialization**

In mid-August this year, we signed a Joint Development Agreement with the Yageo Group, a global manufacturer of capacitors. The agreement concerns the development of a specific capacitor product to be adapted to application processors in mobile phones. The development agreement means that the group company Smoltek Semi and Yageo have agreed on overall terms and initial financing to take Smoltek's patent-protected CNF-MIM technology for ultra-thin capacitors to the market within the discrete capacitor segment, and to mass produce and sell these capacitors via a 50/50 owned joint venture company.

The work of product development and industrialization of our capacitor technology (CNF-MIM) for the production of ultra-thin capacitors is carried out together with a subsidiary of Yageo. The project is in a so-called design phase, which will then be followed by an engineering phase and finally a qualification phase before mass production can begin. Here, the investment (which we made last spring) in an industrial machine for the growth of carbon nanofibers also forms a central part.

# Operations and market – potential Hydrogen

**Operations and market – Hydrogen business area**

Smoltek's patent-protected technology platform offers, as previously mentioned, opportunities for more efficient surface conditions in several industrial sectors where current solutions and materials place limits on performance and efficiency.

One such area is today's electrolyzers for hydrogen production. Improved surface performance in the interface between membranes, flow plates and electrodes in the electrolyzer cells could provide a much better surface efficiency which would enable a reduction of the extremely expensive iridium catalysts and increased power per electrolyzer cell. This would enable a much cheaper production of fossil-free hydrogen.

**The market for cell material used in electrolyzers**
The hydrogen production technology that we are focusing on is called Proton Exchange Membrane (PEM electrolyzers). In addition to the fact that the PEM process produces very pure hydrogen gas, a great advantage is that it can handle higher current density and more varied load than alkaline electrolysis cells. This means that PEM electrolyzers can work together with renewable, intermittent energy sources, such as solar and wind power.

The market for cell material on the anode side in PEM electrolyzers is estimated to reach a value of approximately SEK 5 billion in 2026 and SEK 65 billion in 2030*. The market is in an early stage of development and huge investments are being made in research and development to find more efficient cell materials, from a technical perspective as well as from a cost perspective.

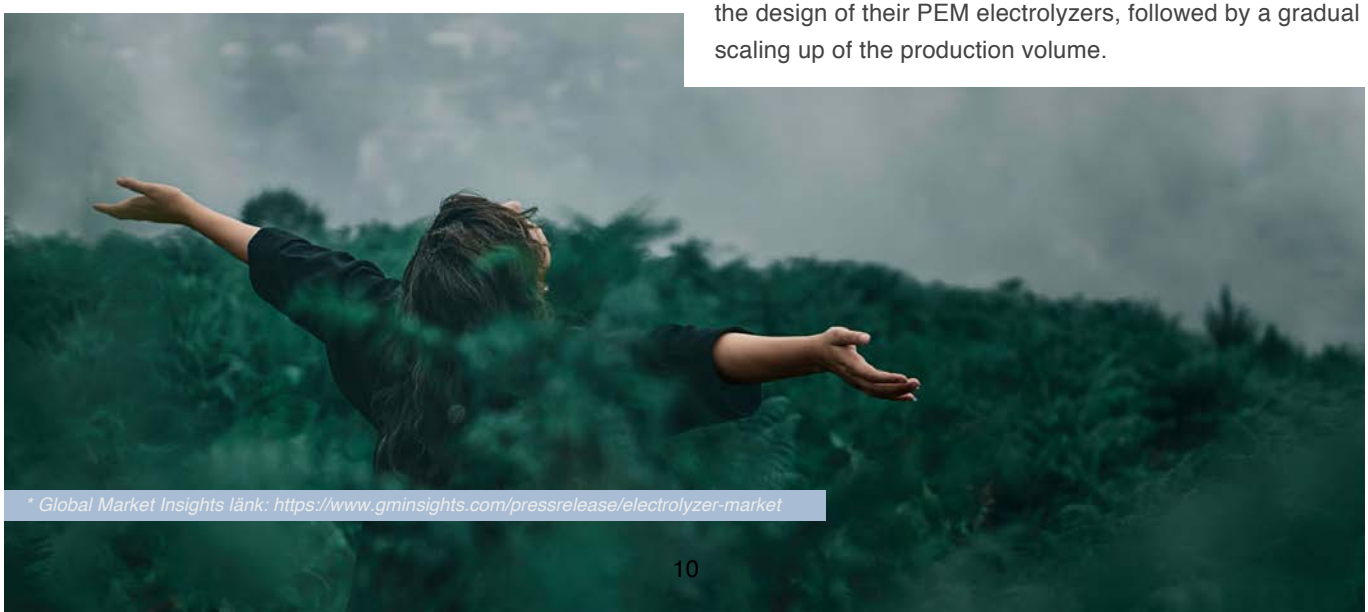
**Advantages of Smoltek's high-performance cell material**
Our technology for a nanonfiber-based electrolyzer cell material can enable greatly reduced costs for the manufacture and operation of electrolyzers – and thus contribute to cheaper production of green hydrogen.

Our patent-protected cell material (ECM) makes it possible to place the very expensive catalytic nanoparticles of iridium on three-dimensional nanostructures in the electrolyzer cell. This optimization creates more mass transport of oxygen per cell and reduces the amount of iridium by 80%, or more. The three-dimensional structure also allows the iridium particles to be packed 2-3 times more tightly thanks to the uneven, "thorny" structure that allows the membrane to be "penetrated" by iridium. This means that the current density in the electrolyzer increases, and thus the capacity per cell also increases.

All in all, this means a 2-3 times lower investment cost for the electrolyzer in a hydrogen plant, at the same time as operating and maintenance costs will also be lower, thanks to the electrolyzer being able to decrease in size.

**Development of the ECM technology**
In May this year, we signed a collaboration agreement with a global manufacturer of materials for electrolyzers to jointly develop demonstrators (prototypes) of electrolyzer cells with our cell material (ECM).

Currently we work with evaluation and analysis of how the production process for large-scale production of the cell material is to be developed and completed. This will also ensure possible adaptation of the cell material, according to the wishes of different partners and customers, as well as the design of their PEM electrolyzers, followed by a gradual scaling up of the production volume.



** Global Market Insights länk: https://www.gminsights.com/pressrelease/electrolyzer-market*

# Preferential rights issue – subscription period 2-16 November

On September 21, it was announced that Smoltek's Board of Directors resolved upon a preferential rights issue of units of approximately SEK 67 million, which is guaranteed to approximately 65 percent through subscription commitments and underwriting commitments. The proposed preferential rights issue was approved by an extraordinary general meeting on October 24, 2022.

All information regarding the issue can be found at www.smoltek.com/emission-2022

**Background and rationale in summary**
During 2022, Smoltek's board of directors and management team have continuously evaluated the need for resources and costs required to reach the goals that the group has established, and agreed that an injection of capital is required for the continued development and commercialization of the company's two business areas. The company also needs funding to strengthen and develop the organization in the long term through recruitment and development of additional competence for product development as well as preparations to scale-up production to high volumes.

Smoltek is in an exciting development phase and is working intensively on the development of its innovative carbon nanofiber-based technology. To better utilize the potential of the technology, the company has initiated collaborations with international partners to reach the market in a more efficient way. On August 18, 2022, the company signed a joint development agreement with Yageo Group for the commercialization of discrete capacitors, which means that the company may take part in Yageo's mass production facilities and sales channels, and that Smoltek has initially received approximately SEK 15 million for development activities within the framework of the collaboration. The company has begun working towards the commercialization phase to achieve scale-up of volume production for ultra-thin capacitors in order to be able to accept large orders by the end of 2024. Within the hydrogen business area, Smoltek has signed a cooperation agreement with an international manufacturer of input materials for electrolyzers. The company is now looking for additional international cooperation partners to reach the hydrogen market in an efficient way and take the next step in the development phase of a nano-fiber-based cell material for electrolyzers that drastically reduces the investment costs for the production of fossil-free hydrogen, which means a correspondingly drastic cost reduction per unit of hydrogen produced.

The proceeds from the Rights Issue and exercised warrants of series TO 7 shall be primarily used for:

- Continued development of ultra-thin capacitors as well as to prepare the products for commercialization and production in high volumes
- Continued development of demonstrators and production concepts for highly efficient cell materials to electrolyzers
- Recruitment of competence for continued development and work to prepare Smoltek's ultra-thin capacitors and highly efficient cell material to electrolyzers for commercialization

**The preferential rights issue in summary**

- Subscription period: 2-16 November
- Trading with unit rights: 2-14 November
- Subscription price: SEK 36.00 per unit, corresponding to SEK 9.00 per share as the warrants are issued free of charge
- Proceeds: Upon full subscription in the rights issue, the company receives proceeds of approx SEK 66.8 million before transaction costs

# Smoltek and Yageo have initiated industrialization of ultra-thin capacitors

In September, we started our collaboration with the Yageo group to industrialize and commercialize ultra-thin capacitors based on our CNF-MIM technology. This is also in accordance with the joint development agreement that we signed this summer.

The first capacitor model being developed in this collaboration is a decoupling capacitor for application processors in next-generation mobile phones. The same basic type of decoupling capacitor could, in a next step, be developed to support other applications where ultra-thin and high capacitance density components are required.

In connection with the start of the collaboration, Yageo's project team visited Gothenburg for a joint workshop.

"The purpose of meeting with us in Gothenburg for a workshop was to gather expertise and resources from Smoltek and Yageo for information exchange and to establish a common goal and agenda for the work to commercialize Smoltek's ultra-thin capacitors", says Håkan Persson, CEO of Smoltek.

At the workshop, the technology and industrialization roadmaps as well as product and market-related activities were discussed. Furthermore, discussions around commercial activities in terms of marketing messages and customer interactions have also started.

"Yageo Corporation is partnering with Swedish innovative nanotechnology company Smoltek to industrialize carbon nanofiber on silicon-capacitors. We kicked off the project last month at Smoltek's HQ in Gothenburg, Sweden. We also had a tour of the nanofiber growth-process at the MC2-laboratory at Chalmers University of Technology", says Philip Lessner, Senior Vice President Yageo.

"It was great fun to have our colleagues from Yageo on site in Gothenburg, and virtually attend from other parts of the world, to start the work under the joint development agreement. The work was carried out with high energy and enthusiasm, which ensures strong progress in the project, not least from a market perspective where Yageo's brand and channels open doors that would otherwise have been difficult for us to open", Håkan Persson concludes.

*Smoltek and Yageo in a joint workshop*

# Financial outcome

**Turnover**
Net sales during the first three quarters of the year amounted to SEK 1,002 thousand (995). And for the third quarter of the year to SEK 1,002 thousand (418).

**Expenses**
Operating expenses during the same periods were SEK 37,197 thousand (21,124) and 14,190 thousand (5,816), respectively. The higher costs compared with the previous year can be explained by continued technology development and the start of industrialization and commercialization of the company's CNF-MIM technology as well as continued development of the technology for our nanofiber-based cell material for electrolyzers.

**Results**
Consolidated profit / loss, after financial items, for the first three quarters of 2022 amounted to SEK -32,353 thousand (-16,195). For the third quarter, profit /loss after financial items amounted to SEK -12,139 thousand (-3,129).

**Cash flow and financial position**
Cash flow from operating activities amounted to SEK -7,432 thousand (-15,342). Cash and cash equivalents, including short-term investments, amounted to SEK 50,498 thousand (61,878) at the end of the period.

**Financing**
The company has chosen to invest excess liquidity in fixed income funds. Long-term interest-bearing liabilities amounted to SEK 731 thousand (758).

**Investments**
Investments in intangible fixed assets in total in the Group on September 30, 2022 amount to SEK 65.4 million, divided between the subsidiaries Smoltek AB and Smoltek Hydrogen AB. The investments refer to further development of the company's own technology. During the period, up until September 30, Smoltek Semi made a partial payment of SEK 4 million for the specially ordered machine for industrial growth of carbon nanofibers, which was ordered earlier in the year. This corresponds to about 40% of the total cost of the machine.

**Key ratios**

| (SEK thousand) | Q3 2022 | Q3 2021 |
|---|---|---|
| Return on equity | -31.0% | -13.1% |
| Return on total capital | -25.1% | -12.4% |
| Solidity | 80.7% | 94.6% |
| Cash liquidity | 230.5% | 1 053.6% |

# Additional financial information

**The share**
Smoltek Nanotech Holding AB has been listed on Spotlight since 2018 under the ticker SMOL. As of the September 30 2022, the company had approximately 2,600 shareholders. The number of shares amounts to 9,282,895.

**Warrants**
Outstanding warrants as of September 30, 2022:

| | |
|---|---|
| Peter Augustsson | 80,000 |
| Gustav Brismark | 50,000 |
| Håkan Persson | 50,000 |
| Per Zellman | 10,000 |
| Edvard Kälvesten | 30,000 |
| Employees | 72,750 |
| Own custody | 52,000 |
| *Total* | *344,750* |

**Intangible assets**
The company's most important asset is intangible assets in the form of patents, know-how and demonstrated technical performance. The balance sheet item is included in costs incurred minus scheduled depreciation on completed assets and amounts to SEK 65.4 million. It is the Board's assessment that the fair value is higher. The comparisons the company has made with similar companies' intellectual property rights and development support this assumption.

**Future prospects**
The company continues to view the market prospects for the respective business areas – Smoltek Semi and Smoltek Hydrogen – positively. For Smoltek Semi, the ongoing and important work of building relationships and deepening interactions with leading semiconductor companies in the US and Asia continues. With regard to the expansion of the company's operations into new areas within Smoltek Hydrogen, there is now a clear focus on technical solutions for electrolyzers, where the subsidiary has quickly built up a large contact network of leading companies and research teams, primarily in Europe. At the same time, the company continues the determined work of developing the patent portfolio, which to date contains around 100 patent assets, of which 77 patents have been granted.

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

**Annual report, general meeting and dividend**
The annual report was published on April 21, 2022 and is available on the company's website. Upon request to info@smoltek.com, the annual report can be printed and mailed. The Annual General Meeting for the 2021 financial year was held by advance voting (postal voting) on May 12, 2022. On the Board's proposal to the Annual General Meeting, no dividend was paid for 2021. Communications from the Annual General Meeting are available on the company's website.

**Going concern – Affirmation by the board**
The board and the CEO assure that this interim report gives a true and fair view of Smoltek Nanotech Holding AB's operations, financial position and performance.

*Göteborg, 2022-10-27*
The Board of Directors of Smoltek Nanotech Holding AB;
Peter Augustsson, Chairman of the Board
Finn Gramnaes, board member
Edvard Kälvesten, board member
Gustav Brismark, board member
Per Zellman, board member
Håkan Persson, CEO

**Risks and uncertainties**
Smoltek Nanotech Holding AB's earnings 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 2021.

# Consolidated income statement

*Smoltek Nanotech Holding AB incl. subsidiaries*

| (SEK thousand) | Jul-sep 2022 | Jul-sep 2021 | Jan-sep 2022 | Jan-sep 2021 | Full year 2021 |
|---|---|---|---|---|---|
| Net sales | 1,002 | 418 | 1,002 | 995 | 1,360 |
| Own work capitalized | 1,050 | 2,237 | 3,872 | 3,724 | 4,497 |
| Other operating income | 0 | 32 | 23 | 211 | 228 |
| Operating expenses | -14,190 | -5,816 | -37,197 | -21,124 | -31,057 |
| **Operating profit / loss** | **-12,139** | **-3,185** | **-32,300** | **-16,250** | **-24,973** |
| Profit / loss from financial items | 0 | 56 | -52 | 55 | 228 |
| Profit / loss for the period | -12,139 | -3,129 | -32,353 | -16,195 | -24,744 |
| **Profit / loss after tax per share** | **-1.31** | **-0.39** | **-3.49** | **-2.00** | **-3.01** |

# Consolidated balance sheet

*Smoltek Nanotech Holding AB incl. subsidiaries*

| **(SEK thousand)** | **2022-09-30** | **2021-09-30** | **2021-12-31** |
|---|---|---|---|
| *Assets* | | | |
| Intangible fixed assets | 65,371 | 60,558 | 63,498 |
| Tangible fixed assets | 8,022 | 4,116 | 4,584 |
| | | | |
| Current receivables | 5,249 | 3,955 | 3,865 |
| Other short-term investments | 24,146 | 55,058 | 40,240 |
| Cash and cash equivalents | 26,352 | 6,820 | 31,347 |
| **Total assets** | **129,140** | **130,507** | **143,533** |
| | | | |
| *Equity and liabilities* | | | |
| Equity | 104,225 | 123,501 | 136,001 |
| Long-term liabilities | 731 | 758 | 758 |
| Current liabilities | 24,184 | 6,247 | 6,775 |
| **Total equity and liabilities** | **129,140** | **130,507** | **143,533** |
| | | | |
| **Equity / assets ratio** | **80.7%** | **94.6%** | **94.8%** |

# Consolidated statement of cash flows

*Smoltek Nanotech Holding AB incl. subsidiaries*

| **(SEK thousand)** | **Jan-sep 2022** | **Jan-sep 2021** | **Full year 2021** |
|---|---|---|---|
| Ongoing operations | | | |
| Operating profit / loss | -32,300 | -16,250 | -24,793 |
| Items not affecting cash flow | 8,895 | 247 | -10 |
| Results from financial items | -52 | 0 | 0 |
| **Cash flow from operating activities** | | | |
| **before changes in working capital** | **-23,457** | **-16,002** | **-24,983** |
| Changes in working capital | | | |
| Change in receivables | -1,384 | -1,241 | -1,150 |
| Changes in current liabilities | 17,409 | 1,901 | 2,248 |
| **Cash flow from operating activities** | **-7,432** | **-15,342** | **-23,705** |
| **Investment activities** | | | |
| Intangible assets | -10,001 | -9,438 | -11,868 |
| Tangible fixed assets | -4,206 | -1,847 | -2,573 |
| Other short-term investments | 0 | -55,000 | -60,000 |
| Försäljning kortfristiga placeringar | 16,094 | 0 | 19,999 |
| **Cash flow from investment activities** | **1,887** | **-66,285** | **-54,442** |
| **Financing activities** | | | |
| New issue of shares and warrants | 577 | 865 | 21,913 |
| Repurchase warrants | 0 | -41 | -41 |
| Change in long-term liabilities | -27 | -61 | -61 |
| **Cash flow from financing activities** | **550** | **763** | **21,811** |
| Change in cash and cash equivalents | -4,995 | -80,863 | -56,336 |
| Cash opening balance | 31,347 | 87,683 | 87,683 |
| **Cash closing balance** | **26,352** | **6,820** | **31,347** |

# Consolidated changes in equity

*Smoltek Nanotech Holding AB incl. subsidiaries*

| (SEK thousand) | Share capital | Other contributed capital | Other equity including net loss for the period | Total equity |
|---|---|---|---|---|
| **Opening balance 2021-01-01** | **967** | **170,060** | **-32,154** | **138,873** |
| Repurchase of warrants | | -41 | | -41 |
| Issue of warrants | | 1,325 | | 1 325 |
| Issue of shares (Exercising warrants TO 4) | 139 | 20,449 | | 20,588 |
| Profit / loss for the period | | | -24,744 | -24,744 |
| **Closing balance 2021-12-31** | **1,006** | **191,793** | **-56,899** | **136,001** |
| Issue of warrants | | 577 | | 577 |
| Profit / loss for the period | | | -32,353 | -32,353 |
| **Closing balance 2022-09-30** | **1,006** | **192,370** | **-89,252** | **104,225** |

# Parent company income statement

*Smoltek Nanotech Holding AB*

| (SEK thousand) | Jul-sep 2022 | Jul-sep 2021 | Jan-sep 2022 | Jan-sep 2021 | Full year 2021 |
|---|---|---|---|---|---|
| Net sales | 1 433 | 1 268 | 3 617 | 3 882 | 5 017 |
| Other operating income | 284 | 185 | 822 | 492 | 719 |
| Operating expenses | -5 426 | -3 794 | -15 095 | -11 972 | -16 858 |
| **Operating profit / loss** | **-3 709** | **-2 340** | **-10 656** | **-7 598** | **-11 123** |
| Profit / loss from financial items | 192 | 409 | 486 | 947 | -38 574 |
| **Profit / loss for the period** | **-3 517** | **-1 931** | **-10 170** | **-6 651** | **-49 697** |

# Parent company balance sheet

*Smoltek Nanotech Holding AB*

| **(SEK thousand)** | **2022-09-30** | **2021-09-30** | **2021-12-31** |
|---|---|---|---|
| *Assets* | | | |
| Shares in group companies | 80,314 | 80,314 | 80,314 |
| Long-term receivables at group companies | 41,646 | 51,461 | 30,114 |
| | | | |
| Current receivables from group companies | 2,176 | 4,131 | 908 |
| Other current receivables | 3,191 | 892 | 918 |
| Other short-term investments | 24,146 | 55,058 | 40,240 |
| Cash and cash equivalents | 7,402 | 2,803 | 20,401 |
| **Total assets** | **158,875** | **194,659** | **172,895** |
| | | | |
| Equity and liabilities | | | |
| Equity | 153,488 | 185,078 | 163,081 |
| Long-term liabilities at group companies | 0 | 7,000 | 2,608 |
| Current liabilities | 5,387 | 2,581 | 7,207 |
| **Total equity and liabilities** | **158,875** | **194,659** | **172,896** |
| | | | |
| **Equity / assets ratio** | **96.6%** | **95.1%** | **94.3%** |

# Parent company statement of cash flows

*Smoltek Nanotech Holding AB*

| (SEK thousand) | Jan-Sep 2022 | Jan-Sep 2021 | Full year 2021 |
|---|---|---|---|
| **Ongoing operations** | | | |
| Operating profit / loss | -10,656 | -7,598 | -11,123 |
| Profit / loss from financial items | -46 | -2 | -2 |
| **Cash flow from operating activities** | | | |
| **before changes in working capital** | **-10,702** | **-7,600** | **-11,125** |
| **Changes in working capital** | | | |
| Current receivables / liabilities group | -8,475 | -3,311 | -881 |
| Changes in receivables | -2,273 | -279 | -305 |
| Changes in current liabilities | 2,779 | 576 | 603 |
| **Cash flow from operating activities** | **-18,670** | **-10,614** | **-11,708** |
| **Investment activities** | | | |
| Financial assets | 0 | 0 | 0 |
| Changes in receivables from group companies | -11,000 | -14,644 | -32,000 |
| Other short-term investments | 0 | -55,000 | -60,000 |
| Sale of short-term investments | 16,094 | 0 | 19 999 |
| **Cash flow from investment activities** | **5,094** | **-69,644** | **-72,001** |
| **Financing activities** | | | |
| New issue of shares and warrants | 577 | 865 | 21,913 |
| Repurchase warrants | 0 | -41 | -41 |
| **Cash flow from financing activities** | **577** | **824** | **21,872** |
| Change in cash and cash equivalents | -12,999 | -79,435 | -61,837 |
| Cash opening balance | 20,401 | 82,238 | 82,238 |
| **Cash closing balance** | **7,402** | **2,803** | **20,401** |

# Parent company changes in equity

*Smoltek Nanotech Holding AB*

| **(SEK thousand)** | **Restricted equity** | **Non-restricted equity** | **Total equity** |
|---|---|---|---|
| **Opening balance 2021-01-01** | **967** | **189,939** | **190,906** |
| Repurchase of warrants | | -41 | -41 |
| Issue of warrants | | 1,326 | 1,326 |
| Issue of shares (Exercising warrants TO4) | 139 | 20,448 | 20,587 |
| Profit / loss for the period | | -49,697 | -49,697 |
| **Closing balance 2021-12-31** | **1,106** | **161,975** | **163,081** |
| Issue of warrants | | 577 | 577 |
| Profit / loss for the period | | -10,170 | -10,170 |
| **Closing balance 2022-09-30** | **1,106** | **152,382** | **153,488** |

# Financial calendar

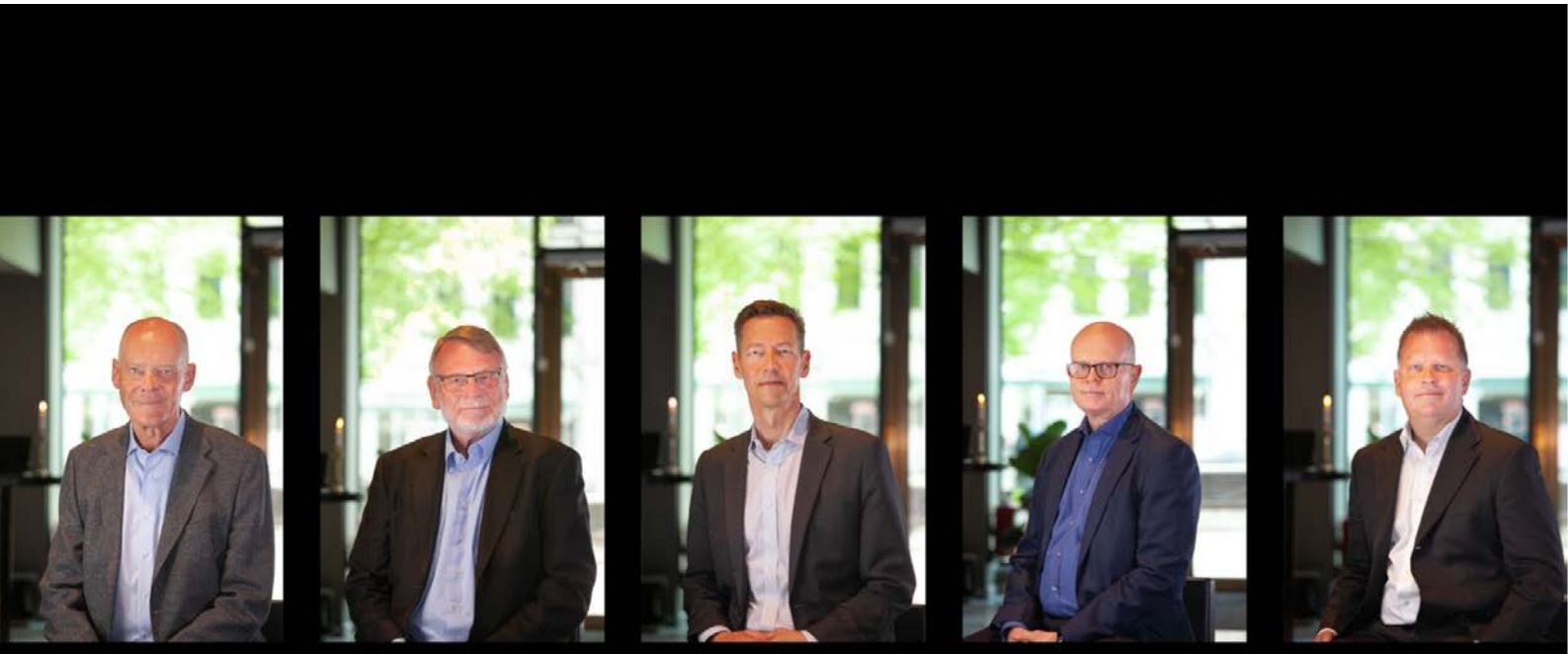
- Year-end report 2022 will be published 2023-02-22

**Audit report**
This report has not been subject to review by the company's auditors.

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

**For further information:**
Håkan Persson, CEO of Smoltek Nanotech Holding AB
Telephone: 0760-52 00 53
E-Mail: hakan.persson@smoltek.com
Website: www.smoltek.com/investors

Göteborg 2022-10-27
The Board



SMOLTEK

**Smoltek Nanotech Holding AB**
Kaserntorget 7, 411 18 Göteborg
+46 760-52 00 53 | info@smoltek.com
www.smoltek.com/investors

Corporate id: 559020-2262