KAROLINSKA DEVELOPMENT

YEAR-END REPORT
Jan – Dec 2021

Q4

Karolinska Development

Karolinska Development (Nasdaq Stockholm: KDEV) is an investment company which offers a unique opportunity to participate in the growth in value of a number of Nordic life sciences companies with substantial commercial opportunities. All of the portfolio companies are developing potentially ground-breaking treatments for medical conditions with a substantial need for improved therapies, including leukaemia, endometriosis, serious viral infections, sepsis and systemic inflammation, bone defects, and hepatic encephalopathy. To date, two of the companies have launched their first products.

For further information, see www.karolinskadevelopment.com

Financial Update

Fourth quarter

- The net profit/loss for the fourth quarter was SEK -19.5 million (SEK 85.9 million in the fourth quarter of 2020). Earnings per share totalled SEK -0.1. (SEK 0.49 in the fourth quarter of 2020).
- The result of the Change in fair value of shares in portfolio companies for the fourth quarter amounted to SEK -16.8 million (SEK 73.8 in the fourth quarter of 2020). The result is largely due to a downturn in share price of in the listed holding Aprea Therapeutics, which is owned indirectly via KDevI Investments.
- The total fair value of the portfolio was SEK 1,293.1 million at the end of December 2021, corresponding to a decrease of SEK 147.5 million from SEK 1,440.6 million at the end of the previous quarter. The net portfolio fair value at that time was SEK 950.2 million, corresponding to a decrease of SEK 125.3 million from SEK 1,075.5 million at the end of the previous quarter. The decrease is mainly an effect of the divestment of the portfolio company Forendo Pharma during the fourth quarter.
- Net asset value amounted to SEK 978.0 million, per share SEK 5.6, at the end of December 2021 (SEK 805.8 million, per share SEK 4.6 at the end of December 2020).
- Net sales totalled SEK 0.5 million during the fourth quarter of 2021 (SEK 0.4 million during the fourth quarter of 2020).
- Karolinska Development and other specialised life science investors made no investments in the portfolio companies during the fourth quarter.
- Cash and cash equivalents (including short-term investments) increased by SEK 47.1 million during the fourth quarter, totalling SEK 92.4 million on 31 December 2021. During the fourth quarter, Karolinska Development received an initial payment from the sale of Forendo Pharma.

Full year

- The full-year net profit/loss was SEK 170.8 million (SEK -207.5 million in 2020). Earnings per share totalled SEK 0.97 (SEK -1.18 in 2020).
- The full-year result for the change in the fair value of the portfolio amounted to SEK 223.2 million (SEK -215.4 million during 2020).

- The total fair value of the portfolio was SEK 1,293.1 million at the end of December 2021, an increase from SEK 933.2 million at the corresponding date in 2020. The net portfolio fair value was SEK 950.2 million, an increase by SEK 179.9 million from SEK 770.3 million at the corresponding date in 2020.
- Net asset value amounted to SEK 978.0 million, per share SEK 5.6, at the end of December 2021 (SEK 805.8 million, per share SEK 4.6 at the end of December 2020).
- Revenue totalled SEK 2.2 million for the full year of 2021 (SEK 2.7 million in 2020).
- Karolinska Development invested a total of SEK 69.2 (40.0) million in its portfolio companies during the full year. Full-year investments in the portfolio companies by Karolinska Development and other specialised life sciences investors totalled SEK 455.5 (146.5) million.
- Karolinska Development's cash compensation for divestments of portfolio companies during the full year amounted to SEK 56.4 (101.9) million.
- Cash and cash equivalents (including short-term investments) increased by SEK 16.5 million during the full year, totalling SEK 92.4 (75.9) million on 31 December 2021.
- The Board does not propose any dividend for the financial year 2021.

Significant events during the fourth quarter

- The portfolio company OssDsign has received an expanded marketing authorization from the U.S. Food and Drug Administration (FDA) for the company's patient-specific cranial implant product OssDsign Cranial PSI. The approval underlines that OssDsign's patented calcium phosphate composition has osteoconductive properties inducing resorption and formation of new bone tissue (October 2021).
- The portfolio company Umecrine Cognition has entered a collaboration with Professor Trevor G Smart and his research group at University College London. The collaboration will involve molecular analysis and behavioral studies of Umecrine Cognition's most advanced drug candidate, golexanolone (October 2021).
- The portfolio company AnaCardio has strengthened its organization in preparation for the initiation of a phase 1b/2a study of its drug candidate AC01 in patients with heart failure. Anacardio has recently recruited Patrik Strömberg as its new CEO. He holds a PhD in biochemistry from Karolinska Institutet, an MBA from the Department of Business Administration at Stockholm University and has many years of experience in drug development and business development from leading positions within AstraZeneca and Sobi (October 2021).
- The portfolio company Dilafor, a drug development company focusing on the development of tafoxiparin for obstetric indications, has enrolled the first patient in a clinical Phase 2a study with tafoxiparin in pregnant women diagnosed with preeclampsia (October 2021).
- The portfolio company Umecrine Cognition has presented new scientific results showing that the innate neurosteroid allopregnanolone plays an important role in the development of cognitive symptoms observed in patients with primary biliary cholangitis (PBC). Since Umecrine Cognition’s drug candidate golexanolone could potentially impact allopregnanolone the company has, based on the novel clinical results and other supportive data, initiated preparations for a Phase 2 clinical study in PBC (November 2021).

- The portfolio company Modus Therapeutics has received approval from the regulatory authorities in the Netherlands to carry out a clinical Phase 1b-study with sevuparin, a potential new treatment of sepsis/septic shock (November 2021).
- Karolinska Development announces that the global pharmaceutical company Organon is acquiring its portfolio company Forendo Pharma. Forendo Pharma's shareholders will receive an initial payment of USD 75 million (approximate SEK 652 million) and are entitled to additional future payments totalling USD 870 million (approximate SEK 7,560 million) upon the achievement of certain development, registration and commercial milestones pertaining to Forendo Pharma's drug candidates. The total purchase price, if all milestones are met, amounts to USD 945 million. Karolinska Development estimates the risk-adjusted net present value (rNPV) of future cash flows, including the initial payment, from the transaction at SEK 114 million, with a positive effect on net profit of SEK 70 million and a consequential increase in the portfolio company's fair value of SEK 70 million in the third quarter 2021. The completion of the transaction was subject to review by competition authorities and other customary conditions but was closed in December 2021 with an initial up-front payment. The transaction was in 2021 one of the largest in the Nordic biotechnology sector (November and December 2021).
- The portfolio company Modus Therapeutics has dosed the first subject in a phase 1b study of sevuparin. The drug candidate is being developed as a potential treatment for sepsis/septic shock, a serious and often fatal condition (December 2021).
- The Board of Directors of Karolinska Development proposed in December 2021 a rights issue of approximately SEK 491 million and convened and Extraordinary General Meeting in January 2022. The Extraordinary General Meeting, which was held on 12 January 2022, has decided to carry out a rights issue of class A and class B shares with preferential rights for existing shareholders which, if fully subscribed, provides the Company with approximately SEK 491 million before transaction costs (the "Rights Issue"). The purpose of the Rights Issue was to finance the continued development of existing investments, new investments, and general corporate purposes.

  The terms in the Rights Issue constituted that ten (10) existing shares (regardless of share class) give the right to subscribe for seven (7) newly issued shares of the same class as the subscription right refers to, at a subscription price of SEK 4.00 per share. The rights issue was secured to 75 percent through subscription commitments and underwriting commitments. To enable the Board and management to participate in the Rights Issue, publication of the year-end report is postponed to February 25, 2022. Furthermore, Director Tse Ping resigned from his position at the Extraordinary General Meeting and Philip Duong was elected as a new Board member for the period until the next Annual General Meeting. Furthermore, Tse Ping and Hans Wigzell have been appointed Senior Strategic Advisors at Karolinska Development. They will assist with strategic advice to the Company’s board and management team (December 2021).

Significant post-period events

- The portfolio company Svenska Vaccinfabriken has appointed Richard Bethell as new CEO. He will assume the position immediately. Richard Bethell holds a D.Phil in Biological Chemistry from the University of Oxford, has thirty years of experience in the biopharmaceutical industry and has worked primarily in the development of new products for the treatment and prophylaxis of infectious diseases (January 2022).

- The Portfolio company Umecrine Cognition has presented results from a preclinical study showing that the drug candidate golexanolone has a suppressive effect on neuroinflammation in the cerebellum, leading to the cessation of disease-related motor disturbances. The study further enhances understanding of golexanolone's mechanism of action and highlights its potential to treat symptoms related to movement and coordination. The study was carried out in collaboration with Dr Vincente Felipo at the Laboratory of Neurobiology, Centro de Investigación Principe Felipe, Valencia (January 2022).
- At the Extraordinary General Meeting of Karolinska Development held on January 12, 2022, the following resolutions were passed: Election of a new member of the Board of Directors, approval of the Board of Directors' resolution to issue shares with preferential rights for existing shareholders and amendment of the articles of association (January 2022).
- Karolinska Development publishes a prospectus which has been approved and registered by the Swedish Financial Supervisory Authority due to the upcoming rights issue (January 2022).
- The portfolio company AnaCardio has completed a fundraising of SEK 33 million comprised of a convertible loan. Karolinska Development participated in this important funding, which enables AnaCardio to proceed with the clinical development plans for the company's lead asset AC01 (February 2022).
- Karolinska Development AB announces definitive outcome in rights issue. Karolinska Development's rights issue with preferential rights for shareholders is completed. The rights issue was subscribed to 76.9 percent and Karolinska Development has received SEK 378 million before transaction costs and set-off of loans. The issue proceeds will finance the continued development of existing investments, new investments, and general corporate purposes. In total, the rights issue was subscribed to 76.9 percent, of which 74.5 percent was subscribed with subscription rights and 2.4 percent without the support of subscription rights. No guarantee undertakings were claimed. Karolinska Development directs gratefulness to existing shareholders for their participation in the rights issue and at the same time welcomes a number of new shareholders, including Swedbank Robur Microcap and Nyenburgh Holding B.V.

  The subscription price in the rights issue was SEK 4.00 per share. Through the rights issue, the share capital in Karolinska Development increases by SEK 944,121.85, through the issue of 1,052,163 shares of class A and 93,360,022 shares of class B, to a total of SEK 2,700,775.94 allocated to 270,077,594 shares, of which 2,555,261 shares are of class A and 267,522,333 shares are of class B (February 2022).

Viktor Drvota, CEO of Karolinska Development, comments:

"We saw a strong performance by many of our portfolio companies during the fourth quarter and completed the successful divestment of Forendo Pharma. A new rights issue that will enable us to accelerate our value creation was completed after the quarter-end, and we also welcomed highly skilled new colleagues to our investment team. The strength of Karolinska Development's business strategy is becoming increasingly clear, and we look forward to continuing to assist in the development of ground-breaking medical innovations."

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Chief Executive's Report

The divestment of Forendo Pharma to the global pharmaceutical company, Organon – one of the world's leading pharmaceutical companies in the area of women's health – was completed during the fourth quarter of 2021. The transaction could result in revenues of up to USD 945 million for Forendo Pharma's shareholders, making it one of the biggest transactions ever in the Nordic biotech sector. We have been supporting Forendo Pharma's successful development of candidate drugs with the potential to improve life for millions of women worldwide for many years now, and those efforts have now resulted in an extremely healthy financial return on the capital invested. The value creation within Forendo is an excellent example of Karolinska Development's long-term business strategy.

Strong performance by many of the portfolio companies

Several of our portfolio companies have reported important progress recently. The fourth quarter saw Modus Therapeutics' launch of a clinical phase 1b study of its candidate drug, sevuparin, which is being developed for the treatment of sepsis/septic shock. Dilafor, meanwhile, expanded its clinical development programme by initiating a phase 2 study in the neglected medical area of preeclampsia, while in January, the Umecrine Cognition portfolio company presented the results of a preclinical study demonstrating that their candidate drug, golexanolone, has a suppressive effect on neuroinflammation in the cerebellum, leading to the cessation of disease-related motor disturbances. These new preclinical results support the further development of golexanolone as a potential treatment for inflammatory diseases of the CNS.

New rights issue lays the foundations for ongoing value creation

A new rights issue of ca. SEK 378 million was recently implemented in order to finance the development of our existing portfolio companies, create scope for new investments, and finance general corporate objectives. Increased financial muscle will enable us to provide stronger support for our existing portfolio companies. It will also boost our ability to make new investments with a clear focus both on pharmaceutical projects that have shown signs of proof of concept in clinical studies and on companies with medicotechnical products that have overcome regulatory barriers and are in the early launch phase. We evaluate on the order of 200 companies every year, with twenty or so of them subjected to a more in-depth examination. In the vast majority of cases, we syndicate our investments with other reputable specialist investors, giving us access to additional expertise, a broader capital base, and an expanded international network of potential licensing and commercial partners. We have seen the valuation of many companies' valuations progress recently in a way that gives rise to interesting investment opportunities.

Team strengthening ahead of expanded ventures

We are absolutely delighted to welcome on board two new colleagues who will enhance our ability to support the portfolio companies and evaluate potential new investment objects. Linda Spahiu, our new Investment Manager, who has an MS in Engineering and is a Doctor of Medicine, has 13 years' experience in the life sciences sector. Her CV includes everything from academic and laboratory work to structuring marketing strategies and conducting commercial due diligence processes. She joins Karolinska Development from a position as CEO of VOC Diagnostics, a Swedish company operating in the area of oncology diagnostics, prior to which, she was a strategic commercial advisor at Boston Consulting Group, working exclusively on life science industry projects. We have also recruited a new analyst, Mikaela Sörman, who has almost 10 years' experience of the health and medical sector. Mikaela has a Master of Public Health and, like Linda Spahiu, has a background in commercial advisory work in the life sciences field at Boston Consulting Group.

Value creation for patients and investors alike

Our ongoing efforts to identify interesting new investment opportunities and to support the portfolio companies in their development and commercialisation of new pharmaceuticals and medicotechnical products are the tools we use in our endeavours to improve and extend the lives of millions of patients worldwide. The capital contribution from the rights issue, and the strengthening of our team, improve our potential to achieve our goals and thereby create significant value for our shareholders.

Solna, 25 February 2022

Viktor Drvota
Chief Executive Officer

Portfolio Companies

High potential for continued value generation

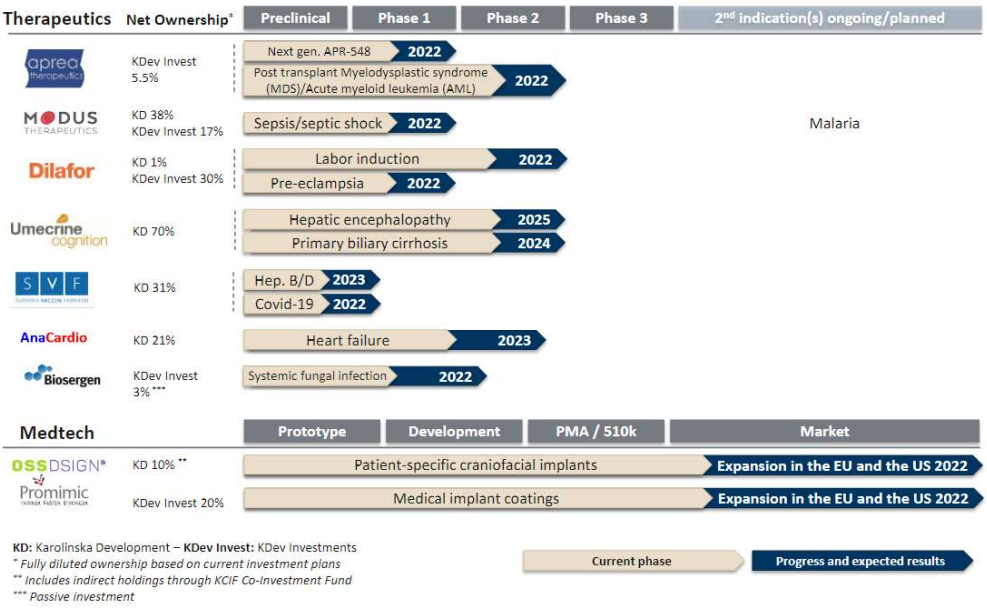
Karolinska Development's investments in therapeutic companies are conducted in syndicates with other professional life science investors, normally until proof-of-concept is demonstrated in phase 2 trials, at which point different exit options are evaluated. For medtech companies, the business model is to finance the companies beyond break-even before realizing the investments.

Karolinska Development has a focused portfolio of therapeutic and medtech companies with significant value-generating potential. The portfolio companies are developing highly differentiated and commercially attractive products that have the potential to deliver compelling clinical and health economic benefits, as well as attractive returns on investment.

During the past years, Karolinska Development has optimized the clinical programs of the portfolio companies to reach clinically meaningful value-inflection points. The majority of Karolinska Development's portfolio companies are well-financed for their ongoing development and commercialisation work and are well-positioned to meet decisive value-generating milestones over the next two years. The ongoing pandemic has affected the portfolio companies to varying degrees, but the majority have been able to develop in accordance with previously set timetables.

In addition to its active value creation in eight portfolio companies, Karolinska Development has passive investments in one portfolio company, Biosergen, and interests in two other life science companies, Forendo Pharma and Oncopeptides, in the form of earn-out agreements.

Karolinska Development's current portfolio



Aprea Therapeutics Inc

An innovative approach to treating a broad range of cancers

Aprea Therapeutics (Boston, USA and Stockholm, Sweden) develops novel anticancer drugs targeting the tumour suppressor protein, p53. Mutations of the p53 gene occur in around 50% of all human tumours and are associated with poor overall survival. Aprea's candidate drug, eprenetapopt (APR-246), has shown an ability to reactivate mutant p53 protein, inducing programmed cell death in many cancer cells. The company has received a breakthrough therapy and orphan drug designation from the American Food and Drugs Administration, the FDA for eprenetapopt.

In 2020, positive results were reported from a phase 2 study of eprenetapopt in combination with azacitidine as post-transplant maintenance therapy in patients with p53-mutated MDS and acute myeloid leukaemia (AML). The relapse free survival at 1-year post-transplant was 58% and the overall survival was 79%.

In August 2021, FDA issued a clinical hold for Aprea Therapeutics clinical program. The issue caused a pause in the patient enrolment for the company's clinical trials. On 9 December, the FDA removed the full clinical hold. In the near future, the company will primarily focus on conducting a pivotal study on MDS/AML post transplantation patients. Aprea is listed on the NASDAQ Global Select Market in the USA since October 2019.

Project (First-in class)
APR-246

Primary indication
MDS

Development phase
Phase 3

Holding in company*
KDev Investments 5.5%

Other investors
HealthCap, Consonance Capital, Versant Ventures, Redmile Group, Fidelity Management & Research Co

Origin
Karolinska Institutet

More information
aprea.com

** Fully-diluted ownership based on current investment plans.*

Deal values for similar projects

- USD 469 million MEI Pharma (licensor) & Helsinn Group (licensee) 2016
- USD 483 million Calithera Biosciences (licensor) & Incyte (licensee) 2017

The market

Eprenetapopt has the potential for use in many different types of cancer as mutations in p53 are found in around 50% of all diagnosed cancers. The lead target indications thus far include blood tumours such as MDS and AML. MDS is an orphan disease and represents a spectrum of hematopoietic stem cell malignancies. Approximately 30-40% of MDS patients progress to AML and mutations in p53 are found in up to 20% of MDS and AML patients, which is associated with poor overall prognosis.

Recent progress

- FDA has granted orphan drug designation to Aprea Therapeutics drug candidate eprenetapopt for the treatment of AML (April 2021).
- Positive results were reported from a phase 2 trial evaluating the drug candidate eprenetapopt with azacitidine for post-transplant maintenance therapy in patients with TP53 mutant MDS and AML. The relapse free survival at 1-year post-transplant was 58% and overall survival was 79% (July 2021). In the near future, the company will primarily focus on conducting a pivotal study on MDS/AML post transplantation patients
- In August 2021, FDA issued a clinical hold for Aprea Therapeutics clinical program evaluating eprenetapopt with acalabrutinib or venetoclax and rituximab in lymphoid malignancies. The issue caused a pause in the patient enrolment for the company's clinical trials. On 9 December, the FDA removed the full clinical hold.

Expected milestones

- The results from the phase 1 study of APR 548 are expected in the second half of 2022.

MODUS THERAPEUTICS

Project (First-in-class)
Sevuparin

Primary indication
Sepsis/Septic shock

Development phase
Phase 2

Holding in company*
Karolinska Development 38%
KDev Investments 17%

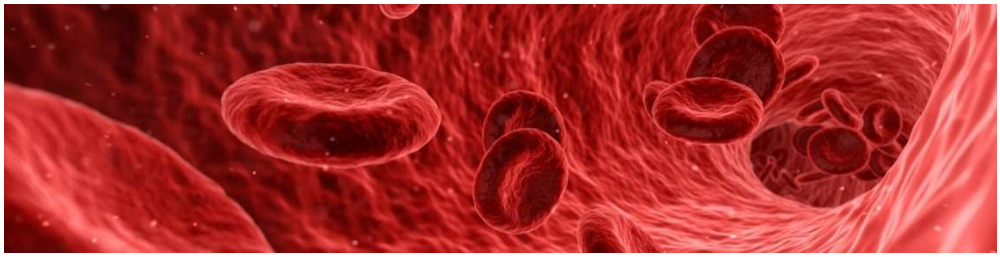
Other investors
The Foundation for Baltic and East European Studies, Ergomed, Praktikerinvest

Origin
Karolinska Institutet, Uppsala University

More information
modustx.com

**Fully-diluted ownership based on current investment plans*

Modus Therapeutics AB



Establishing new treatments of sepsis/septic shock

Modus Therapeutics (Stockholm, Sweden) is developing sevuparin as a treatment of sepsis/septic shock, a potentially life-threatening condition that is currently lacking efficient pharmaceutical therapies. Patients that are affected by sepsis are exposed to a risk of developing multi-organ failure and – in severe cases – decease. Sevuparin is a polysaccharide drug candidate with a multimodal mechanism of action, including anti-inflammatory, anti-adhesive and anti-aggregate effects. It acts by interfering with the harmful agents generated by white blood cells during systemic inflammation. This interference could potentially break the molecular chain of events that lead to vascular damage and plasma leakage in patients with sepsis/septic shock and other systemic inflammatory manifestations. Data from pre-clinical animal as well as in vitro human cell models has revealed that sevuparin was able to protect blood vessels and counteract lung plasma leakage during systemic inflammation.

Previous clinical trials in other patient groups have shown that sevuparin is well tolerated and has a favourable safety profile. The sepsis programme is financed though the rights issue that was conducted in connection with the listing at the Nasdaq First North Growth Market. Modus also continues to collaborate with academic partners, for example, this is seen in the collaboration that began with Imperial College, London in May, where the intention is for sevuparin to be tested in patients with severe malaria who also constitute a condition with systemic inflammation.

The market

Septic shock is a leading cause of death in intensive care units, with mortality rates typically exceeding 30%. There is currently no specific pharmaceutical treatment available for the treatment of sepsis. As a result, it is one of the costliest conditions to treat in the hospital care setting. Sepsis/septic shock is triggered by an infection and causes the same form of severe uncontrolled inflammation that can occur in conjunction with extensive surgery, trauma, burns and autoimmunity. An analysis by Carlsquare in December estimated the future market at USD 27 billion, with the potential market share of sevuparin estimated to be 10%.

Recent progress

- A successful listing of the company's share on Nasdaq First North in Stockholm was made. The newly raised capital will primarily be used to finance the continued clinical development of the company's drug candidate sevuparin for sepsis and septic shock (July 2021).
- Modus Therapeutics announced that their phase 1b clinical trial with sevuparin was approved by certified authorities in the Netherlands (November 2021). In December, the first subject in the sevuparin study was dosed.

Expected milestones

- Ongoing phase 1b LPS challenge study, with H1 2022 as the estimated completion date.
- Phase 2 proof-of-concept (PoC) for sepsis/septic shock with an estimated start date of Q4 2022.

Dilafor

Project (First-in-class)
Tafoxiparin

Primary indication
Labor induction

Development phase
Phase 2b

Holding in company*
Karolinska Development 1%
KDev Investments 30%

Other investors
The Foundation for Baltic and East European Studies,
Opocrin,
Praktikerinvest,
Rosetta Capital,
Lee's Pharmaceutical

Origin
Karolinska Institutet

More information
dilafor.com

** Fully-diluted ownership based on current investment plans.*

Deal values for similar projects

- USD 397 million Velo Bio (seller) & AMAG Pharmaceuticals (buyer) 2018
- USD 465 million Palatin Technologies (licensor) & AMAG Pharmaceuticals (licensee) 2017

Dilafor AB

Reducing complications with childbirth

Dilafor (Solna, Sweden) is developing tafoxiparin for obstetric indications, with particular reference to protracted labor and associated complications.

About one quarter of all pregnant women undergo induction in labor. In just over half of all cases, the induction fails, leading to protracted labor that entails an increased risk for both mother and child due to medical complications. Between 25 and 40% of women who experience protracted labor eventually require an emergency caesarean section. Surgical intervention always entails not only a risk to the patient, but substantial health care costs. Tafoxiparin could eliminate patient suffering and save valuable health care resources.

Subcutaneous administration of tafoxiparin in an earlier phase 2a study showed a significantly positive effect with a shortened time to delivery and an enhanced ripening of the cervix in patients delivered after induction. A soft and ripe cervix is a prerequisite of successful labor induction.

The market

Approximately one quarter of all pregnant women require labor induction. The current standard treatment includes administration of prostaglandins and oxytocin, but in over 50% of cases, the induction fails, leading to protracted labour, emergency caesarean sections, or other maternal and foetal complications.

Recent progress

- Dilafor reported positive results from its phase 2b study (June 2021).
- Dilafor enrolled the first patient in a clinical Phase 2a study with tafoxiparin in pregnant women diagnosed with preeclampsia (October 2021).

Expected milestones

- Continued phase 2b study with lower dosage according to plan.

Umecrine Cognition AB

Unique treatment approach for CNS-related disorders

Umecrine Cognition (Solna, Sweden) is developing golexanolone (GR3207) – a candidate drug in a new class of pharmaceuticals that affect the GABA system. An over-activation of the inhibitory GABA system in the CNS is suspected in conjunction with liver failure, causing very serious clinical symptoms. The over-activation is also thought to lay behind certain cognitive impairments and sleep disturbances. GABA-receptor modulating steroid antagonists, such as golexanolone, counter the increased activation of the GABA system and hence constitute a promising group of candidate drugs.

Golexanolone GR3027 has been shown to restore different types of neurological impairments in experimental models. The candidate drug enters the brain and works by reversing the inhibitory effects of the neurosteroid allopregnanolone on brain function in humans.

A clinical phase 2a study of golexanolone in patients with hepatic encephalopathy (HE) – a serious neuropsychiatric and neurocognitive condition that occurs in conjunction with acute and chronic hepatic damage with underlying cirrhosis – was conducted during the last year. The results showed that the candidate drug was well-tolerated, that the safety profile was good, and that the pharmacokinetic profile was favourable. One of the effect parameters – a well-established and sensitive form of EEG study – demonstrates that the candidate drug has a significant effect on brain signalling, with a correlated positive effect on extreme daytime fatigue. There was no significant effect, however, on other secondary outcome measures. In December, the company announced that, based on these study results, it had established a plan for the further development of the candidate drug.

The market

HE is a serious disease with a large unmet need that affects up to 1% of the population in the USA and EU. 180,000-290,000 patients are hospitalised every year in the USA due to complications of HE. Once HE develops, mortality reaches 22-35% after five years. HE is also associated with substantial societal costs.

Recent progress

- Umecrine Cognition presented new scientific results that support the development of golexanolone as treatment for primary biliary cholangitis (PBC). Since Umecrine Cognition's candidate drug golexanolone has the ability to affect allopregnanolone, the company has, based on these new findings in combination with other supportive results, decided to commence the planning of a clinical phase 2 study within PBC (November 2021).
- The company presented results from a preclinical study showing that the drug candidate golexanolone has a suppressive effect on neuroinflammation in the cerebellum, leading to the cessation of disease-related motor disturbances (January 2022).

Going forward

- The planned IPO in Q1 2022 may be delayed due to market sentiments. The development work continues according to plan.

Project (First-in-class)
GR3027

Primary indications
Hepatic encephalopathy
Idiopathic hypersomnia

Development phase
Phase 2a

Holding in company*
Karolinska Development 70%

Other investors
Norrlandsfonden,
Fort Knox Förvaring AB,
PartnerInvest

Origin
Umeå University

More information
umecrinecognition.com

** Fully-diluted ownership based on current investment plans.*

Deal values for similar projects

- USD 397 million Aerial Biopharma (licensor) & Jazz Pharmaceuticals (licensee) 2014
- USD 201 million Vernalis (licensor) & Corvus Pharmaceuticals (licensee) 2015

Project (First-in-class)
SVF-001

Primary indication
Hepatitis B and D
SARS-CoV-2 and other Corona virus

Development phase
Preclinical

Holding in company*
Karolinska Development 31%

Origin
Karolinska Institutet

More information
svenskavaccinfabriken.se

**Fully-diluted ownership based on current investment plans*

Deal values for similar projects

- USD 546 million Affinivax raises Series B and C financing 2020
- USD 1.4 billions MYR Gmbh (acquired) & Gilead Sciences Inc (buyer) 2020

Svenska Vaccinfabriken Produktion AB

Developing therapeutic proteins and DNA vaccines

Svenska Vaccinfabriken Produktion AB ("SVF") develops therapeutic vaccines against hepatitis B and hepatitis D, as well as vaccines to prevent infections by SARS-CoV-2 and potential future Coronaviruses. Therapeutic vaccines, unlike preventative vaccines, have the potential to cure already infected patients.

Despite the availability of preventative vaccines and antiviral treatments, over 250 million people live with a chronic hepatitis B infection. One million chronic carriers die each year due to complications caused by the virus, such as liver cirrhosis and liver cancer. The closely related hepatitis D virus infects 15-25 million hepatitis B carriers and exacerbates the progression of the disease.

Svenska Vaccinfabriken uses an in-house developed vaccine platform to produce a specific form of antibodies that blocks the ability of the hepatitis virus to invade human cells. The company has generated promising efficacy data in a preclinical animal model regarding hepatitis and is now continuing its preclinical development with the goal of enabling a phase 1 study to be initiated in 2023.

Although Coronavirus infections are usually mild, some virus types can lead to life-threatening conditions. This has been the case in the outbreaks of SARS-CoV in 2003, MERS-CoV in 2012, and during the ongoing Covid-19 pandemic. SVF has also developed a platform to address and prevent severe infections of this kind and which is expected to afford the potential for quickly developing and producing vaccines against both existing and new forms of Coronaviruses. The company submitted a patent application specifically linked to a potential Covid-19 vaccine during 2021. A Phase 1 study is expected to be launched in 2022.

The market

Svenska Vaccinfabriken is currently focusing its innovative vaccine platform on the market for therapeutic vaccines for hepatitis B and D, and preventative vaccines for respiratory viral diseases, such as Covid-19. The 2017 KuicK research report, "Global Hepatitis Drug Market & Clinical Trials Insight 2023" estimated the value of the annual global market for hepatitis B at between USD 4 and 5 billion, growing to USD 5-6 billion by 2023. The annual global market for hepatitis D, by contrast, is estimated at around USD 1 billion. There is substantial competition between vaccine developers, who comprise both smaller biotech companies and international pharmaceutical companies. Svenska Vaccinfabriken's business model is based on guiding their vaccine projects to the clinical development phase and then licensing them out global pharmaceutical companies with established distribution networks.

Recent progress

- The company appointed Richard Bethell as new CEO (January 2022).

Expected milestones

- The work of preparing the hepatitis B and D vaccine product for development in humans is expected to be completed in 2022.
- Phase 1 study with COVID vaccine expected to be initiated in 2022
- Phase 1 studies of hepatitis B and D vaccines are expected to be initiated in 2023.

AnaCardio

Project (First-in-class)
Peptide

Primary indication
Heart failure

Development phase
Phase 2a

Holding in company'
Karolinska Development 21%

Origin
Karolinska Institutet
Karolinska University Hospital

More information
anacardio.com

**Fully-diluted ownership based on current investment plans*

Deal values for similar projects

- USD 2.1 billion – Cardioxyl Pharmaceuticals (licensor) & Bristol-Myers Squibb (licensee), 2015
- USD 620 million – Corthera (licensor) & Novartis (licensee), 2012

AnaCardio AB

A safer long-term treatment for heart failure

AnaCardio (Stockholm, Sweden) is developing a new form of peptide drug that protects cardiac tissue in conjunction with heart failure.

Heart failure occurs when the heart's ability to pump sufficient blood to meet the body's needs has deteriorated. The underlying condition often involves a weakening of the heart's musculature, resulting in an inability to pump the blood out of the heart's chambers. The condition arises as a sequela of previous cardiovascular complications, such as high blood pressure or vasoconstriction. Chronic heart failure often presents with diffuse symptoms, such as tiredness or breathlessness, and delayed diagnosis is consequently a common problem. Acute heart failure results in an individual's health status becoming critical, necessitating hospitalisation. One of the major issues with existing pharmaceuticals is that they are not designed for long-term treatment, due to a degree of toxicity that results in the breakdown of cardiac tissue and consequent side effects, such as arrythmia, low blood pressure, ischemia, and an increased risk of premature mortality.

AnaCardio's clinical candidate drug is being developed to restore the heart's normal muscular function and blood circulation with ground-breaking and safer technique based on research by Professor Lars Lund at Karolinska Institutet.

The market

Heart failure is a global disease with a substantial unmet medical need for safe, effective drugs. Cardiovascular diseases are becoming more widespread as a result of the sedentary lifestyle and growing problems with obesity that are following in the wake of increasing global affluence. An estimated 20 million people suffer from chronic heart failure and around 3 million people are hospitalised to treat it every year. The risk of developing cardiovascular disease increases with age, and 10-20% of the elderly population is now estimated to suffer from chronic heart failure, which is now the most common reason for hospitalisation amongst the elderly. Heart failure not only causes considerable individual suffering, it also has significant economic consequences for society in the form both of direct costs from in-patient care and of indirect costs in the form of productivity losses and reductions in tax revenues. The increased medical need is reflected in the sales value of heart failure treatments, which is expected to increase from USD 3.8 billion to USD 16.1 billion by 2026 in the world's seven largest pharmaceutical markets.

Recent progress

- During the autumn of 2021, the company's new management and organization has been established with, among others, CEO Patrik Strömberg, Allan Gordon as Medical Director and Marc Willuhn as CMC Responsible.
- During February 2022, the company raised SEK 33 million in financing and entered into an agreement with Helsinn regarding a global license for AC01, to be developed as the company's main program.

Expected milestones

- Completion of preparations for phase 1b/2a study.
- Start of phase 1b/2a study.

OSSDSIGN®

Project
OSSDSIGN® Cranial and OSSDSIGN® Facial

Primary indication
Cranial implants

Development phase
Marketed

Holding in company*
Karolinska Development 10%**

Other investors
SEB Venture Capital, Fouriertransform

Origin
Karolinska University Hospital, Uppsala University

More information
ossdsign.com

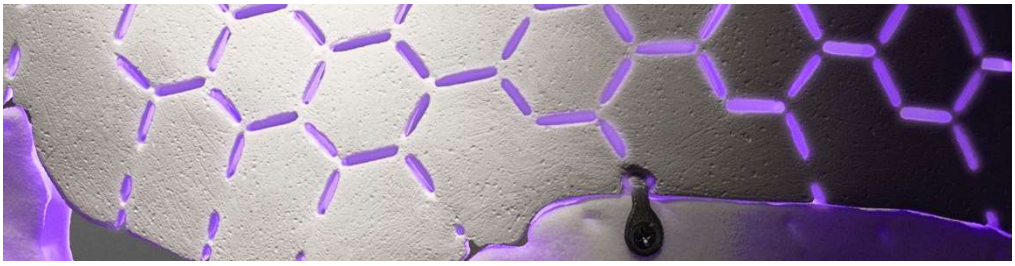
** Fully-diluted ownership based on current investment plans*

*** Includes indirect holdings through KCIF Co-Investment Fund*

Deal values for similar projects

- USD 330 million Baxter International (buyer) & ApaTech (seller) 2010
- USD 360 million Royal DSM (buyer) & Kensey Nash (seller) 2012

OssDsign AB



Commercializing innovative craniofacial implants

OssDsign (Uppsala, Sweden) is an innovative company that designs and manufactures implants and material technology for bone regeneration. Its lead products, OSSDSIGN® Cranial and OSSDSIGN® Facial, are already being sold in several European markets, including Germany, the UK, and the Nordic region. The company is commercialising its cranial implant in the USA and is currently preparing commercial activities in Japan after the approval of the company's OSSDSIGN® Cranial PSI product. OssDsign acquired Sirakoss Ltd, a company operating in the field of bone graft substitutes in November 2020. This strategic acquisition means a fivefold increase in the company's addressable market.

During the year, the company worked intensively to increase sales. The US subsidiary has been actively working since 2019 on strengthening the company's position in the USA through long-term, sound customer relationships. A recent patent application from the US Patent Office further enhances OssDsign's potential for future growth in the USA.

OssDsign's clinically proven bone regeneration technology has better healing properties than similar products. The company uses cutting edge 3D printing, moulding, and regenerative medicine technology to customise solutions for individual patients. The result is a patient-specific, titanium-reinforced implant made from a ceramic material with regenerative properties that accelerates the natural tissue formation and enables permanent healing of a bone defects. The regenerative effect of the ceramic material helps ensure a shorter healing process and entails both reduced suffering for the patient and cost savings for hospitals.

The market

OssDsign focuses on the market for craniomaxillofacial (CMF) implants. The total market size was estimated to USD 1.8 billion in 2016 and is expected to grow at an CAGR of 5-9% worldwide over the next five years. The market for OssDsign's lead product in cranioplasty alone is estimated to approximately USD 200 million. OssDsign's products target a well-defined patient population – the relevant type of operation is performed at a limited – and easily identifiable – number of hospitals worldwide. The price sensitivity is low, and the products are relatively easy to register in multiple markets.

Recent progress

- OssDsign has carried out a fully guaranteed rights issue of SEK 240 million in combination with overallotment options of approximately SEK 30 million – a total of approximately SEK 270 million. The purpose of the financing is, among other things, to accelerate the company's development through the new strategy program ASCENT25 (May 2021).
- The company launched OssDsign Catalyst in the U.S and the first patients in the US have also been treated. The product is a synthetic bone graft that stimulates the formation of healthy bone tissue in spinal fusion surgeries (August 2021).
- OssDsign has received an expanded marketing authorization from FDA for the company's patient-specific cranial implant product OssDsign Cranial PSI (October 2021).

Expected milestones

- Financing for continued roll-out of the product internationally and market introduction of the Sirakoss product.

Promimic
THINNER. FASTER. STRONGER.

Project
HA^{nano} Surface

Primary indication
Implant surface coatings

Development phase
Marketed

Holding in company*
KDev Investments 20%

Other investors
K-Svets Ventures,
ALMI Invest,
Chalmers Ventures

Origin
Chalmers University of Technology

More information
promimic.com

**Fully-diluted ownership based on current investment plans*

Deal values for similar projects

- USD 95 million Nobel Biocare (buyer) & AlphaBioTec (seller) 2008
- USD 120 million MAKO surgical (buyer) & Pipeline Biomedical (seller) 2013

Promimic AB

Coatings to enhance the properties of medical implants

Promimic (Gothenburg, Sweden) is a biomaterials company that develops and markets a unique coating for medical implants called HA^{nano} Surface, which increases their integration into bone and anchoring strength.

HA^{nano} Surface is a hydrophilic nanometre-thin coating that helps preserve the surface structure of the implant by reducing the risks of cracking. The coating is unique because it can be applied to any implant geometry and material, including porous materials and 3D structures. The technology on which HA^{nano} is based is FDA-approved, which means that a new implant coated with HA^{nano} Surface can receive marketing approval through the 510(k) route and reach a new market quickly. The coating process is easy to implement in the industrial scale production of implants.

Promimic has an established sales operation in the USA and a series of development and commercial partnerships, including one with Sistema de Implante Nacional (S.I.N), a leading provider of dental implants in Brazil, which is commercialising dental implants coated with HAnano Surface, and one with Danco Anodizing, which has established a manufacturing facility for implants with HAnano Surface, targeting the US and Chinese markets. Promimic strengthened its position in the orthopaedic market in 2019 and 2020 by entering partnerships with four new orthopaedic companies. The partnership includes the development and commercialisation of products within limb salvage surgery, knee implants and sports medicine treated with the HAnano Surface® technology. Many of these products are new and modern 3D-printed spinal implants treated with HAnano Surface® in order to improve osseointegration and stimulate new bone formation and bone growth on the implant surface.

The market

Promimic is focusing on the markets for dental and orthopaedic implants, which collectively represent a worldwide market opportunity of USD 600 - 800 million. The competition amongst implant manufacturers is fierce and each market segment is dominated by four to eight global companies. Promimic's business model is centred on out-licensing the HA^{nano} Surface technology to leading implant manufacturers.

Recent progress

- During 2021, eight new products were submitted to the FDA for 510(k) approval.
- Eight products with Promimic's technology were also approved by the FDA in 2021.
- At least ten new applications for 510(k) approval will be sent to the FDA during 2022.

Expected milestones

- In the beginning of 2022, further product launches and license agreements are expected to be closed and announced.
- Possibility of a listing of the company's share on Nasdaq First North Growth Market in 2022.

Financial Development

The following financial reporting is divided into one financial reporting for The Parent Company and one for The Investment Entity. The Parent Company and The Investment Entity are the same legal entity, but the reporting is divided in order to meet legal reporting requirements.

The Parent Company is reporting in accordance with the guidelines under the Swedish Annual Accounting Act and Swedish Financial Accounting Standards Council, RFR 2. The Investment Entity is required to meet the reporting requirements of listed companies and thus in accordance with IFRS adopted by the EU and the Swedish Annual Accounts Act

Amounts with brackets refer to the corresponding period previous year unless otherwise stated.

Financial development in summary for the Investment Entity

SEKm	2021 Oct-Dec	2020 Oct-Dec	2021 Full-year	2020 Full-year
Condensed income statement				
Change in fair value of shares in portfolio companies	-16.8	73.8	223.2	-215.4
Net profit/loss	-19.5	85.9	170.8	-207.5
Balance sheet information				
Cash and cash equivalents	92.4	75.9	92.4	75.9
Net asset value (Note 1)	978.0	805.8	978.0	805.8
Net debt (Note 1)	-32.2	0.0	-32.2	0.0
Share information				
Earnings per share, weighted average before dilution (SEK)	-0.1	0.5	1.0	-1.2
Earnings per share, weighted average after dilution (SEK)	-0.1	0.5	1.0	-1.2
Net asset value per share (SEK) (Note 1)	5.6	4.6	5.6	4.6
Equity per share (SEK) (Note 1)	5.5	4.6	5.5	4.6
Share price, last trading day in the reporting period (SEK)	5.3	1.8	5.3	1.8
Portfolio information				
Investments in portfolio companies	0.0	20.7	69.2	40.0
Of which investments not affecting cash flow	0.0	0.2	16.4	0.9
Portfolio companies at fair value through profit or loss	950.2	770.3	950.2	770.3

Financial Development for the Investment Entity in 2021

Investments *(comparable numbers 2020)*

Karolinska Development and other specialised life science investors made no investments in the portfolio companies during the fourth quarter.

During the year, Karolinska Development and external investors have made investments in the portfolio companies as follows:

SEKm	Karolinska Development	External Investors	Total Invested Q1-Q4 2021
OssDsign	28.4	242.2	270.5
Dilafor	15.8	25.7	41.5
Modus Therapeutics	12.6	30.4	43.0
Umecrine Cognition	6.4	35.0	41.4
AnaCardio	3.0	3.0	6.0
Svenska Vaccinfabriken Produktion	3.0	0.0	3.0
Biosergen	0.0	50.0	50.0
Total	**69.2**	**386.3**	**455.5**

Portfolio Fair Value

Fair Value of the portfolio companies owned directly by Karolinska Development decreased by SEK 108.4 million during the fourth quarter 2021. The main reason for the decrease in fair value was the sale of Forendo Pharma to Organon, which was successfully completed in December.

Fair Value of the portfolio companies owned indirectly via KDev Investments decreased by SEK 39.2 million during the fourth quarter 2021.The main reasons for the decrease in Fair value of the portfolio companies was the downturn in share price in the listed holding Aprea Therapeutics but also through a further partial sale of shares in Aprea Therapeutics.

Total Fair Value from portfolio companies owned directly by Karolinska Development and indirectly via KDev Investments decreased by SEK 147.6 million in the fourth quarter 2021.

As a consequence of the decrease in Fair Value of the part of the portfolio owned via KDev Investments, the potential distribution to Rosetta Capital decreased by SEK 22.2 million, resulting in Net Portfolio Fair Value decreasing by SEK 125.4 million in the fourth quarter 2021.

SEKm	31 Dec 2021	30 sep 2021	Q4 2021 vs Q3 2021
Karolinska Development Portfolio Fair Value (unlisted companies)	652.4	760.1	-107.7
Karolinska Development Portfolio Fair Value (listed companies)	73.9	74.6	-0.7
KDev Investments Portfolio Fair Value	566.8	606.0	-39.2
Total Portfolio Fair Value	**1,293.1**	**1,440.6**	**-147.6**
Potential distribution to Rosetta Capital of fair value of KDev Investments	-342.9	-365.1	22.2
Net Portfolio Fair Value (after potential distribution to Rosetta Capital)	**950.2**	**1,075.5**	**-125.4**

Profit development 2021 (comparable numbers 2020)

During the fourth quarter 2021, Karolinska Development's revenue amounted to SEK 0.5 (0.5) million and consists primarily of services provided to portfolio companies. For the full-year 2021, the revenue amounted to SEK 2.2 (2.7) million.

Change in fair value of shares in portfolio companies of in total SEK -16.8 (73.8) million includes the difference between the change in Net Portfolio Fair Value during the fourth quarter 2021 with SEK -125.4 million and the divestment of a portfolio company of SEK 108.7 million. Change in fair value of other financial assets and liabilities amounted to SEK 7.0 (19.3) million and are the consequence of changes in valuation of earn-out deals. For the full-year 2021, the change in fair value of shares in portfolio companies amounted to SEK 223.2 (-215.4) million and the change in fair value of other financial assets amounted to SEK -33.9 (43.1) million.

During the fourth quarter 2021 other expenses amounted to SEK 1.3 (2.0) million and personnel costs amounted to SEK 6.7 (4.3) million. The main reason for the increase in personnel costs compared to the fourth quarter 2020 is the outcome of bonus scheme related to exit of portfolio companies. For the full-year 2021 other expenses amounted to SEK 6.9 (8.5) million and personnel cost amounted to 23.2 (23.6) million.

The operating profit/loss in the fourth quarter 2021 amounted to SEK -17.5 million compared to SEK 87.2 million in the fourth quarter 2020. The operating profit/loss for the full-year 2021 amounted to 160.7 (-202.4) million.

The financial net during the fourth quarter 2021 amounted to SEK -2.0 (-1.3). For the full-year 2021 the financial net amounted to SEK 10.1 (-5.1) million. The improved financial net during the full year 2021 are partly due to a financing fee of SEK 10 million from Modus Therapeutics, but also from adjusted interest income from loans to the portfolio company Umecrine Cognition of SEK 5.6 million.

The Investment Entity's Net profit/loss amounted to SEK -19.5 (85.9) million in the fourth quarter 2021. Net profit/loss for the full-year 2021 amounted to SEK 170.8 (-207.5) million.

Financial position

The Investment Entity's equity to total assets ratio amounted to 88% on 31 December 2021, compared to 90% on 31 December 2020.

The investment company's equity on December 31, 2021, amounted to SEK 971.1 million, compared to SEK 990.6 million on September 30, 2021. The decrease is a result of the net profit/loss of SEK -19.5 million for the fourth quarter of 2021.

Interest-bearing liabilities consisted of bridge loans including accrued interest amounting to SEK 124.6 million on 31 December 2021, compared to SEK 75.9 million on 31 December 2020.

After paying operational costs for the fourth quarter 2021, cash and cash equivalents (including short term investments) amounted to SEK 92.4 million on 31 December 2021 compared to SEK 75.9 million on 31 December 2021. Net debt amounted to SEK 32.2 million on 31 December 2021 compared to SEK 0.0 million on 31 December 2020.

The company is going concern. The company's ability to continue operations (going concern) was strengthened not only with the initial payments from the sale of Forendo Pharma which was received in December 2021 but also with the rights issue carried out in February 2022. The company's long-term financial situation has been strengthened. The report is prepared on the basis of the assumption of continued operation.

Financial Development – Parent Company

The Parent Company refers to Karolinska Development AB (comparable numbers 2020).

During the fourth quarter 2021, the Parent Company's Net profit/loss amounted to SEK -19.5 (85.9) million. Net profit/loss for the full-year 2021 amounted to SEK 170.8 (-207.5) million.

Due to the negative result for the fourth quarter 2021, the equity decreased from SEK 990.6 million as of 30 September 2021 to SEK 971.1 million 31 December 2021.

Shares

The share and share capital

Trade in the Karolinska Development share takes place on Nasdaq Stockholm under the ticker symbol "KDEV". The last price paid for the listed B share on 31 December 2021 was SEK 5.32, and the market capitalization amounted to SEK 935 million.

The share capital of Karolinska Development on 31 December 2021 amounted to SEK 1.8 million divided into 1,503,098 A shares, each with ten votes (15,030,980 votes) and 174,162,311 B shares, each with one vote (174,162,311 votes). The total number of shares and votes in Karolinska Development on 31 December 2021 amounted to 175,665,409 shares and 189,193,291 votes.

Ownership

On December 31, 2021, Karolinska Development had 19,585 shareholders.

Shareholder	A-Shares	B-Shares	Cap %	Vote %
invoX Pharma Ltd	0	75,727,285	43.11%	40.03%
Worldwide International Investments Ltd	0	28,007,077	15.94%	14.80%
Stift För Främjande & Utveckling	1,503,098	2,079,836	2.04%	9.04%
Östersjöstiftelsen	0	3,889,166	2.21%	2.06%
Coastal Investment Management LLC	0	2,470,541	1.41%	1.31%
SEB Investment Management	0	1,142,011	0.65%	0.60%
Adis Holding AB	0	700,000	0.40%	0.37%
Gålöstiftelsen	0	668,661	0.38%	0.35%
Zhang, Qiuyue	0	654,000	0.37%	0.35%
Synskadades riksförbund	0	494,939	0.28%	0.26%
Sum Top 10 Shareholders	1,503,098	115,833,516	66.80%	69.17%
Sum Other Shareholders	0	58,328,795	33.20%	30.83%
Sum All Shareholders	**1,503,098**	**174,162,311**	**100.00%**	**100.00%**

[1]On October 4, 2021, Sino Biopharmaceutical transferred its holding in Karolinska Development to the wholly owned subsidiary invoX Pharma Ltd.

Information on Risks and Uncertainties

Investment Entity and Parent Company

Financial risks

Russia's invasion of Ukraine and the coronavirus's global spread affects the economy and society as a whole, including Karolinska Development and its portfolio companies. The value of listed companies can decline, delays in clinical trial programs may occur and the opportunities for refinancing can be hampered. The Board monitors the evolvement of the crises closely and Karolinska Development is working intensively to minimize the impact on the value of our investments and continues with different financing alternatives to secure the long-term capital requirement and thereby increase the degree of strategic and operational headroom for the future. After the initial payment from the sale of Forendo Pharma which was received in December 2021 and the rights issue carried out in February 2022 the company's long-term financial situation has been strengthened.

For a detailed description of other risks and uncertainties, see the Annual report 2020.

Signing of the report

Solna, 25 February 2022

Viktor Drvota
CEO

This report has not been reviewed by the Company's auditors.

Dates for Publication of Financial Information

Annual Report 2021	25 March 2022
Interim Report January – March 2022	29 April 2022
Annual meeting 2022	12 May 2022
Interim Report January – June 2022	19 August 2022
Interim Report January – September 2022	18 November 2022

Karolinska Development is required by law to publish the information in this interim report. The information was published on 25 February 2022.

This interim report, together with additional information, is available on Karolinska Development's website: www.karolinskadevelopment.com.

Note: This report is a translation of the Swedish interim report. In case of any discrepancies, the official Swedish version shall prevail.

Financial Statements

Condensed income statement for the Investment Entity

SEK 000	Note	2021 Oct-Dec	2020 Oct-Dec	2021 Full-year	2020 Full-year
Revenue		469	528	2,170	2,651
Change in fair value of shares in portfolio companies	2,3	-16,770	73,832	223,203	-215,378
Change in fair value of other financial assets and liabilities		6,954	19,320	-33,891	43,077
Other expenses		-1,291	-2,039	-6,887	-8,466
Personnel costs		-6,686	-4,266	-23,205	-23,620
Depreciation of right-of-use assets		-173	-162	-690	-690
Operating profit/loss		**-17,497**	**87,213**	**160,700**	**-202,426**
Financial net		-1,997	-1,294	10,119	-5,061
Profit/loss before tax		**-19,494**	**85,919**	**170,819**	**-207,487**
Taxes		-	-	-	-
NET PROFIT/LOSS FOR THE PERIOD		**-19,494**	**85,919**	**170,819**	**-207,487**

Condensed statement of comprehensive income for the Investment Entity

SEK 000	Note	2021 Oct-Dec	2020 Oct-Dec	2021 Full-year	2020 Full-year
Net profit/loss for the period		-19,494	85,919	170,819	-207,487
Total comprehensive income/loss for the period		**-19,494**	**85,919**	**170,819**	**-207,487**

Earnings per share for the Investment Entity

SEK	Note	2021 Oct-Dec	2020 Oct-Dec	2021 Full-year	2020 Full-year
Earnings per share, weighted average before dilution		-0.11	0.49	0.97	-1.18
Number of shares, weighted average before dilution		175,421,124	175,421,124	175,421,124	175,421,124
Earnings per share, weighted average after dilution		-0.11	0.49	0.97	-1.18
Number of shares, weighted average after dilution		175,421,124	175,421,124	175,421,124	175,421,124

Condensed balance sheet for the Investment Entity

SEK 000	Note	31 Dec 2021	31 Dec 2020
ASSETS			
Tangible assets			
Right-of-use assets		690	690
Financial assets			
Shares in portfolio companies at fair value through profit or loss	2,3	950,170	770,320
Other financial assets	4	61,799	0
Total non-current assets		**1,012,659**	**771,010**
Current assets			
Accounts receivable		-	3
Receivables from group company		-	80
Receivables from portfolio companies		505	243
Other financial assets	4	-	41,181
Other current receivables		768	768
Prepaid expenses and accrued income		2,940	929
Short-term investments at fair value through profit or loss		50,005	-
Cash and cash equivalents		42,398	75,869
Total current assets		**96,616**	**119,073**
TOTAL ASSETS		**1,109,275**	**890,083**
EQUITY AND LIABILITIES			
Total equity		**971,107**	**800,267**
Current liabilities			
Current interest liabilities to related parties	5	124,603	75,864
Other financial liabilities		1,756	5,726
Accounts payable		1,674	617
Liability to make lease payment		711	711
Other current liabilities		2,156	1,373
Accrued expenses and prepaid income		7,268	5,525
Total current liabilities		**138,168**	**89,816**
Total liabilities		**138,168**	**89,816**
TOTAL EQUITY AND LIABILITIES		**1,109,275**	**890,083**

Condensed statement of changes in the Investment Entity's equity

SEK 000	Not	2021-12-31	2020-12-31
Opening balance, equity		**800,267**	**1,007,732**
Net profit/ loss for the period		170,819	-207,487
Closing balance, equity		**971,107**	**800,267**

Condensed statement of cash flows for the Investment Entity

SEK 000	Note	2021 Full-year	2020 Full-year
Operating activities			
Operating profit/loss		160,700	-202,426
Adjustments for items not affecting cash flow			
Depreciation		690	690
Change in fair value		-189,312	172,301
Other items		-	-45
Cash flow from operating activities before changes in working capital and operating investments		**-27,922**	**-29,480**
Cash flow from changes in working capital			
Increase (-)/Decrease (+) in operating receivables		-1,461	29,988
Increase (+)/Decrease (-) in operating liabilities		46,084	-33,708
Cash flow from operating activities		**16,701**	**-33,200**
Investment activities			
Part payment for earn-out deal		-3,121	-5,093
Proceeds from sale of shares in portfolio companies		56,427	101,853
Acquisitions of shares in portfolio companies		-52,759	-39,154
Acquisitions of short-term investments[1]		-50,005	-
Cash flow from investment activities		**-49,458**	**78,171**
Financing activities			
Amortization of lease liabilities		-714	-669
Cash flow from financing activities		**-714**	**-669**
Cash flow for the period		**-33,471**	**23,737**
Cash and cash equivalents at the beginning of the year		75,869	52,132
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD		**42,398**	**75,869**

[1]Surplus liquidity in the Investment Entity is invested in interest-bearing instruments and is recognized as short-term investments with a maturity exceeding three months. These investments are consequently not reported as cash and cash equivalents and are therefore not included in the statement of cash flows from operating activities. Cash and cash equivalents and short-term investments amounts to SEK 92.4 million at the end of the period.

Condensed income statement for the Parent Company

SEK 000	Note	2021 Oct-Dec	2020 Oct-Dec	2021 Full-year	2020 Full-year
Revenue		469	528	2,170	2,651
Change in fair value of shares in portfolio companies		-16,770	73,832	223,203	-215,378
Change in fair value of other financial assets and liabilities		6,954	19,320	-33,891	43,077
Other expenses		-1,470	-2,217	-7,601	-9,180
Personnel costs		-6,686	-4,266	-23,205	-23,620
Operating profit/loss		**-17,503**	**87,197**	**160,676**	**-202,450**
Financial net		-1,988	-1,287	10,164	-5,016
Profit/loss before tax		**-19,491**	**85,910**	**170,840**	**-207,466**
Tax		-	-	-	-
NET PROFIT/LOSS FOR THE PERIOD		**-19,491**	**85,910**	**170,840**	**-207,466**

Condensed statement of comprehensive income for the Parent Company

SEK 000	Note	2021 Oct-Dec	2020 Oct-Dec	2021 Full-year	2020 Full-year
Net profit/loss for the period		-19,491	85,910	170,840	-207,466
Total comprehensive income/loss for the period		**-19,491**	**85,910**	**170,840**	**-207,466**

Condensed balance sheet for the Parent Company

SEK 000	Note	31 Dec 2021	31 Dec 2020
ASSETS			
Financial non-current assets			
Shares in portfolio companies at fair value through profit or loss	2,3	950,170	770,320
Other financial assets	4	61,799	-
Total non-current assets		**1,011,969**	**770,320**
Current assets			
Accounts receivable		-	3
Receivables from group companies		-	80
Receivables from portfolio companies		505	243
Other financial assets	4	-	41,181
Other current receivables		768	768
Prepaid expenses and accrued income		2,940	929
Short-term investments at fair value through profit or loss		50,005	-
Cash and cash equivalents		42,398	75,869
Total current assets		**96,616**	**119,073**
TOTAL ASSETS		**1,108,585**	**889,393**
EQUITY AND LIABILITIES			
Total equity		**971,128**	**800,288**
Current liabilities			
Current interest liabilities	5	124,603	75,864
Other financial liabilities		1,756	5,726
Accounts payable		1,674	617
Other current liabilities		2,156	1,373
Accrued expenses and prepaid income		7,268	5,525
Total current liabilities		**137,457**	**89,105**
Total liabilities		**137,457**	**89,105**
TOTAL EQUITY AND LIABILITIES		**1,108,585**	**889,393**

Condensed statement of changes in equity for the Parent Company

SEK 000	Not	31 Dec 2021	31 Dec 2020
Opening balance, equity		**800,288**	**1,007,753**
Net profit/ loss for the period		170,840	-207,466
Closing balance, equity		**971,128**	**800,288**

Notes to the Financial Statements

NOTE 1 Accounting policies

This report has been prepared in accordance with the International Accounting Standard (IAS) 34 Interim Financial Reporting and the Annual Accounts Act. The accounting policies applied to the Investment Entity and the Parent Company correspond, unless otherwise stated below, to the accounting policies and valuation methods used in the preparation of the most recent annual report.

Information on the Parent Company

Karolinska Development AB (publ) ("Karolinska Development," "Investment Entity" or the "Company") is a Nordic life sciences investment company. The Company, with Corporate Identity Number 556707-5048, is a limited liability company with its registered office in Solna, Sweden. The Company focuses on identifying medical innovations and investing in the creation and growth of companies developing these assets into differentiated products that will make a difference to patients' lives and provide an attractive return on investment to its shareholders. Investments are made in companies whose sole purpose is to generate a return through capital appreciation and investment income. These temporary investments, which are not investment entities, are designated "portfolio companies" below.

New and revised accounting principles 2021

No new or revised IFRS standards or recommendations from IFRS Interpretations Committee has had significant impact on the Investment Entity.

Related party transactions

In September 2021 Sino Biopharmaceutical transferred the bridge loan of SEK 70 million and the credit facility of SEK 42.5 million (plus accrued interest) to their subsidiary invoX Pharma. Same condition applies.

The bridge loans from invoX Pharma (subsidiary of Sino Biopharmaceutical) total SEK 112.5 million plus accrued interest of SEK 12.1 million falls due on 31 December 2022.

The bridge loans, including accrued interest, was converted into shares in Karolinska Development's rights issue in February 2022.

Karolinska Development has, in addition to the bridge loans, the opportunity to utilize a credit facility from invoX Pharma of up to approximately SEK 85 million (EUR 8.5 million), interest rate of 5% on utilized amount and falls due on 31 December 2022, to cover a possible short-term liquidity need. The credit facility was canceled in connection with Karolinska Development's rights issue in February 2022.

On October 4, 2021, the former main owner Sino Biopharmaceutical transferred its entire holding in Karolinska Development to the wholly owned subsidiary invoX Pharma Ltd.

Definitions

Interim period: The period from the beginning of the financial year through the closing date.

Reporting period: January – December 2021.

Alternative Performance Measures

The Company presents certain financial measures in the interim report that are not defined under IFRS. The Company believes that these measures provide useful supplemental information to investors and the company's management as they allow for the evaluation of the company's performance. Because not all companies calculate the financial measures in the same way, these are not always comparable to measures used by other companies. Therefore, these financial measures should not be considered as substitutes for measures as defined under IFRS.

Portfolio companies: Companies where Karolinska Development has made investments (subsidiaries, joint ventures, associated companies and other long-term securities holdings) which are active in pharmaceuticals, medtech, theranostics and formulation technology.

The Portfolio Fair Value is divided into Total Portfolio Fair Value and Net Portfolio Fair Value.

Total Portfolio Fair Value: The aggregated proceeds that would be received by Karolinska Development and KDev Investments if the shares in their portfolio companies were sold in an orderly transaction between market participants at the measurement date.

Net Portfolio Fair Value (after potential distribution to Rosetta Capital) is the net aggregated proceeds that Karolinska Development will receive after KDev Investments' distribution of proceeds to Rosetta Capital.

rNPV: "risk-adjusted net present value" is a method to value risky future cash flows. rNPV is the standard valuation method in the drug development industry, where sufficient data exists to estimate success rates for all R&D phases.

Equity per share: Equity on the closing date in relation to the number of shares outstanding on the closing date.

Net debt: Interest-bearing liabilities (SEK 124.6 million) reduced with cash and cash equivalents (including short-term investments) (SEK 92.4 million).

Equity to total assets ratio: Equity divided by total assets.

Net asset value as of 31 December 2021:

SEK 000	Number of shares	Fair value	Part of Karolinska Developments' net asset value SEK per share[3]	percentage
Listed assets				
Modus Therapeutics	6,144,821	23,350	0.13	2.4%
OssDsign	5,812,638	50,570	0.29	5.2%
Total listed assets		**73,920**	**0.42**	**7.6%**
Unlisted assets				
AnaCardio		3,389	0.02	0.3%
Dilafor		12,014	0.07	1.2%
Svenska Vaccinfabriken Produktion		6,827	0.04	0.7%
Umecrine Cognition		623,048	3.55	63.7%
KCIF Co-Investment Fund KB[1]		7,099	0.04	0.7%
KDev Investments[1]		223,873	1.28	22.9%
Total unlisted assets		**876,250**	**5.00**	**89.6%**
Net of other liabilities and debts[2]		**27,843**	0.16	**2.8%**
Total net asset value		**978,013**	**5.58**	**100.0%**

[1]The company has both listed and unlisted assets.
[2] Includes SEK 92.4 million cash and cash equivalents (including short-term investments).
[3] In relation to the number of shares outstanding (175,421,124) on the closing date.

NOTE 2 Shares in portfolio companies, at fair value through profit or loss

Change in fair value of portfolio companies

SEK 000	2021 Full-year	2020 Full-year
Result level 1		
Listed companies, realized	-433	-12,109
Listed companies, unrealized	-27,159	-24,542
Total level 1	**-27,592**	**-36,651**
Result level 3		
Unlisted companies, realized	7.243	8,215
Unlisted companies, unrealized	243,552	-186,942
Total level 3	**250,795**	**-178,727**
Total	**223,203**	**-215,378**

Shares in portfolio companies, at fair value through profit or loss

SEK 000	**2021-12-31**	**2020-12-31**
Accumulated acquisition cost		
At the beginning of the year	770,320	1 047,600
Investments during the year	69,154	39,954
Sales during the year	-112,507	-101,856
Changes in fair value in net profit/loss for the year	223,203	-215,378
Closing balance	**950,170**	**770,320**

NOTE 3 Fair value

The table below shows financial instruments measured at fair value based on the classification in the fair value hierarchy. The various levels are defined as follows:

Level 1- Fair value determined on the basis of observed (unadjusted) quoted prices in an active market for identical assets and liabilities
Level 2- Fair value determined based on inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly
Level 3- Fair value determined based on valuation models where significant inputs are based on non-observable data

Fair value as of 31 December 2021

SEK 000	**Level 1**	**Level 2**	**Level 3**	**Total**
Financial assets				
Shares in portfolio companies, at fair value through profit or loss	73,920	-	876,250	950,170
Other financial assets	-	-	61,799	61,799
Cash and cash equivalents and short-term investments	92,403	-	-	92,403
Total	**166,323**	**-**	**938.049**	**1,104,372**
Financial liabilities				
Other financial liabilities	-	-	1,756	1,756
Total	**-**	**0**	**1,756**	**1,756**

Fair value as of 31 December 2020

SEK 000	**Level 1**	**Level 2**	**Level 3**	**Total**
Financial assets				
Shares in portfolio companies, at fair value through profit or loss	37,766	-	732,554	770,320
Other financial assets	-	-	41,181	41,181
Cash, cash equivalents and short-term investments	75,869	-	-	75,869
Total	**113,635**	**0**	**773,735**	**887,370**
Financial liabilities				
Other financial liabilities	-	-	5,726	5,726
Total	**-**	**0**	**5,726**	**5,726**

Fair value (level 3) as of 31 December 2021

SEK 000	Shares in portfolio companies	Other financial assets	Other financial liabilities
At beginning of the year	732,554	41,181	5,726
Transfers from level 3	-36,752	-	-
Acquisitions	38,207	56,079	-
Compensations	-108,554	-722	-3,121
Gains and losses recognized through profit or loss	250,795	-34,739	-849
Closing balance 31 December 2021	**876,250**	**61,799**	**1,756**
Realized gains and losses for the period included in profit or loss	6,810	0	0
Unrealized gains and losses in profit or loss for the period included in profit or loss	243,985	-34,739	849

[1]Refers to portfolio company, which was listed during the period.

Fair value (level 3) as of 31 December 2020

SEK 000	Shares in portfolio companies	Other financial assets	Other financial liabilities
At beginning of the year	884,830	62,620	46,851
Acquisitions	39,952	-	-
Compensations	-13,500	-28,484	-5,094
Gains and losses recognized through profit or loss	-178,727	7,045	-36,032
Closing balance 31 December 2020	**732,554**	**41,181**	**5,725**
Realized gains and losses for the period included in profit or loss	8,215	-	-
Unrealized gains and losses in profit or loss for the period included in profit or loss	-186,943	7,045	-41,125

The Investment Entity recognizes transfers between levels in the fair value hierarchy on the date when an event or changes occur that give rise to the transfer.

Shares in portfolio companies (Level 3) as of 31 December 2021

SEK000	Ownership	Fair value SEK000	Valuation model[1]
AnaCardio	20.9%	3,389	Last post money
Dilafor	0.7%	12,014	Last post money
Svenska Vaccinfabriken Produktion	30.8%	6,827	Last post money
Umecrine Cognition	72.6%	623,048	External valuation[2]
KCIF Co-Investment Fund KB	26.0%	7,099	A combination of share price listed company and fair value of financial asset[4]
KDev Investments	90.1%	223,873	A combination of last post money and share price listed company[5]
Total level 3		**876,250**	

[1]See The Annual Report 2020 Valuation of portfolio companies at fair value, for a description of valuation models.
[2]Risk adjusted external valuation by an independent valuation institute in December 2020. The external valuation resulted in an rNPV value which has been risk adjusted to reflect an assumed pricing in conjunction with an IPO and the need to secure development financing.
[3]KCIF Co-Investment Fund KB holds listed shares which are valued in accordance with the closing rate on the final trading day of the period and a financial asset, at fair value through profit or loss, attributable to earn-out in the sale of Forendo Pharma.
[4]KDev Investments AB holds both listed shares which are valued in accordance with the closing rate on the final trading day of the period and unlisted shares which are valued in accordance with the most recent transaction (post-money valuation). Dilafor, which is an unlisted company, accounts for 86% of the total fair value in KDev Investments.

Impact of Portfolio Fair Value

In the table below, "Total Portfolio Fair Value" is as defined in Note 1.

Impact on Portfolio Fair Value of the agreement with Rosetta Capital

"Potential distribution to Rosetta Capital", SEK 342.9 million, is the amount that KDev Investments according to the investment agreement between Karolinska Development and Rosetta Capital is obligated to distribute to Rosetta Capital from the proceeds received by KDev Investments (KDev Investments Fair Value). The amount includes repayment of SEK 2.4 million that Rosetta Capital currently has invested in KDev Investments' portfolio companies and the distribution of dividends from Rosetta Capital's common and preference shares. The distribution to Rosetta Capital will only happen when KDev Investments distribute dividends. KDev Investments will only distribute dividends after all eventual payables and outstanding debt has been repaid.

"Net Portfolio Fair Value (after potential distribution to Rosetta Capital)" is as defined in Note 1.

Expanded Portfolio Fair Value calculations taking the portfolio valuation and potential distribution to Rosetta Capital in consideration

SEK 000	31 Dec 2021	31 Dec 2020
Karolinska Development Portfolio Fair Value (unlisted companies)	652,377	732,554
Karolinska Development Portfolio Fair Value (listed companies)	73,920	37,766
KDev Investments Portfolio Fair Value	566,807	162,916
Total Portfolio Fair Value	**1,293,104**	**933,236**
Potential distribution to Rosetta Capital of fair value of KDev Investments	-342,934	-162,916
Net Portfolio Fair Value (after potential distribution to Rosetta Capital)	**950,170**	**770,320**

*SEK 2.4 million repayment of investments in KDev Investments made by Rosetta Capital and SEK 340.5 million distribution of dividends to preference shares and common shares.

NOTE 4 Other financial assets

SEK 000	2021-12-31	2020-12-31
Other financial assets, non-current		
Earn-out agreement Forendo Pharma[1]	61,799	-
Earn-out agreement Oncopeptides[2]	0	-
Total	**61,799**	**0**
Other financial assets, current		
Earn-out agreement Oncopeptides[2]	-	40,459
Total	**0**	**40,459**

[1]Karolinska Development is entitled to earn-out payments according to the agreement with Organon regarding the sale of Forendo Pharma, se below.
[2]Karolinska Development is entitled to a 5% earn-out payment according to an agreement with Industrifonden. The earn-out payment is received when Industrifonden divests its holding in Oncopeptides. Maximum residual value amounts to KSEK 40,459.

Earn-out agreement Forendo Pharma

Karolinska Development estimates the risk-adjusted net present value (rNPV) of future cash flows (earn-outs), after the initial payment in December 2021, to SEK 56 million. The earn-outs are expected to be paid during the period 2024–2034, and renewed rNPV valuations will be performed continuously. Forendo Pharma's previously shareholders are entitled to additional future payments totalling USD 870 million (approximate SEK 7,560 million) upon the achievement of certain development, registration and commercial milestones pertaining to Forendo Pharma's drug candidates.

NOTE 5 Liabilities to related parties

SEK 000	2021-12-31	2020-12-31
Current interest liabilities		
invoX Pharma Ltd[1]	70,000	70,000
invoX Pharma Ltd[2]	42,500	-
Accrued interest invoX Pharma Ltd	12,103	5,864
Total	**124,603**	**75,864**

[1]Bridge loan from Sino Biopharmaceutical has during September 2021 been transferred to the wholly owned subsidiary invoX Pharma Ltd (with the same conditions), expiry date is 31 December 2022. The interest rate amounts to 8% and falls due on 31 December 2022.
[2]Bridge loan from invoX Pharma Ltd (Sino Biopharmaceutical has transferred the credit facility to the wholly owned subsidiary invoX Pharma Ltd. Expiry date is 31 December 2022. The interest rate amounts to 5% and falls due on 31 December 2022.

The bridge loans, including accrued interest, was converted into shares in Karolinska Development's rights issue in February 2022.

Related parties refer to the main owner invoX Pharma Ltd, which in turn is a wholly owned subsidiary of the former main owner Sino Biopharmaceutical Ltd.

NOTE 6 Pledge assets and contingent liabilities

SEK 000	2021-12-31	2020-12-31
Pledge assets		
Contingent liabilities		
Investment agreement in portfolio company	12,927	-
Summa	**12,927**	**0**