

novo
holdings

Investing to benefit people and the planet



PERFORMANCE REPORT 2023

Novo Holdings A/S
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CVR 24257630

About this Performance Report

This performance report is an unaudited version of the 2023 performance of Novo Holdings. The audited version of the 2023 Annual Report of Novo Holdings is expected to be released in May 2024, as it is dependent on the release of the consolidated financial statements of the Novo Nordisk Foundation, which are expected to be released later than in previous years due to the merger of Chr. Hansen and Novozymes.

Novo Holdings is a holding and investment company that is responsible for managing the assets and wealth of the Novo Nordisk Foundation, one of the world's largest enterprise foundations. The purpose of Novo Holdings is to improve people's health and the sustainability of society and the planet by generating attractive long-term returns on the assets of the Novo Nordisk Foundation.

Novo Holdings is the controlling shareholder of Novo Nordisk and Novozymes* (the Novo Group companies) and manages an investment portfolio with a long-term return perspective. Novo Holdings invests in life science companies at all stages of development and, in addition, manages a broad portfolio of equities, bonds, real estate and infrastructure assets as well as private equity investments.

As of year-end 2023, Novo Holdings had Total Assets under Management of DKK 1,114 billion (EUR 149 bn).

Further information: www.novoholdings.dk

*On 29 January 2024, it was announced that the combination of Novozymes and Chr. Hansen was successfully completed, with the continuing name Novonesis. As the completion date was in 2024, we will in this performance report for 2023 use the former names Novozymes and Chr. Hansen.

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Cover:

Bioindustrial Investments invests in areas where technology can deliver returns while feeding a growing world population, fighting climate change and drought, or creating sustainable cities and mobility - one of the initiatives could be vertical farming as seen on the cover.

Novo Holdings at a glance



5-year average return on the Investment Portfolio*



*The Investment Portfolio excludes Special Investments, which comprise investments that are made at below market return targets (eg, impact investments), and assets that are held for NNF strategic purposes. Including all assets, the Total Investment Return is 8.1%.



*The offices in US, UK and Asia are providing certain advisory services to Novo Holdings A/S, mainly within the areas of identifying and analysing various investment opportunities among life sciences companies in the US, UK and Asia as well as certain follow-up activities related thereto, such as board memberships, financial control and reporting efforts.



Return on
the Investment Portfolio* in 2023

9.4%

*The Investment Portfolio excludes Special Investments, which comprise investments that are made at below market return targets (eg, impact investments), and assets that are held for NNF strategic purposes. Including all assets, the Total Investment Return is 6.9%.



Deployed into
life sciences in 2023



2023 performance highlights

Allocation and returns by asset category, investment area and Novo Group

Assets	Allocation		Returns		
	DKKbn	Share of	2023	5Y Rolling	10Y Rolling
By asset category					
Diversified Growth Assets	164	81%	8.8%	8.9%	11.4%
Macroeconomic Risk Hedges	37	19%	-0.9%	3.8%	3.8%
Investment Assets	201	100%	6.9%	8.1%	10.3%
By investment area					
Life Science Investments	103	51%	5.3%	7.5%	11.4%
Capital Investments	98	49%	8.6%	8.5%	8.2%
Investment Assets	201	100%	6.9%	8.1%	10.3%
Novo Group					
Novo Nordisk A/S	883	97%	50.9%	38.3%	23.2%
Novozymes A/S	30	3%	8.8%	7.2%	6.9%
Novo Group	913	100%	49.0%	36.3%	22.0%

Allocation and returns of invested assets by asset class

Asset class	Allocation		Returns		
	DKKbn	Share of	2023	5Y Rolling	10Y Rolling
Asset category and asset class					
Diversified Growth Assets	164	81%	8.8%	8.9%	11.4%
Public Equity	74	37%	16.4%	7.0%	9.9%
Private Equity	58	28%	2.3%	13.1%	12.8%
Venture Capital	19	9%	9.0%	11.1%	30.2%
Credit	13	7%	-2.6%	2.9%	5.1%
Macroeconomic Risk Hedges	37	19%	-0.9%	3.8%	3.8%
Real Assets	17	9%	-7.7%	11.9%	11.3%
Bonds & Cash	20	10%	4.2%	0.6%	1.1%
Investment Assets	201	100%	6.9%	8.1%	10.3%

Five-year summary

DKK billion	2023	2022	2021	2020	2019
Income statement					
Income from Novo Group companies	19	14	14	13	11
Return from Life Science Investments	5	-6	12	11	7
Return from Capital Investments	7	-5	12	5	8
Total Income and Investment Return	31	3	38	29	26
Operating profit	30	2	37	29	26
Net profit for the year	25	7	33	25	23
Balance sheet					
Equity	153	127	159	131	114
Total assets	211	186	187	156	132
Total assets under management*	1,114	805	697	457	411
Key ratios					
Equity ratio	73%	68%	85%	84%	87%
Global employees	178	152	111	109	87

* Total assets under management (at market value) include Novo Group companies with A and B shares of the companies valued using the quoted B-price at closing 31 December of the respective year.

Returns

All returns are in DKK and reflect total returns, excluding internal costs. Income from Novo Group companies (Novo Nordisk and Novozymes) consists of dividend and share buy-back programme payouts. Returns on Life Science Investments are calculated on an Internal Rate of Return (IRR), based on the book value at the end of the measurement period and cash flows within the measurement period compared with the book value at the beginning of the measurement period. Capital Investments' returns and Investment Portfolio returns are based on Time Weighted Returns (TWR). Whereas asset category returns are based on TWR, the underlying returns by asset class reflect a mix of IRR and TWR, with Private Equity, Venture Capital and Real Assets being measured by IRR and the remaining asset classes based on TWR.

Investment strategy

Novo Holdings has five core strategic investment pillars:

1. Be a stable and supportive owner of the Novo Group.
2. Generate attractive long-term returns that allow us to both deliver an income to the Novo Nordisk Foundation and to grow the Investment Portfolio.
3. Allocate a significant portion of our funds to direct life science investing, where we can leverage our heritage and deep-rooted insights.
4. Invest, both through specialist portfolio managers and directly, across the asset classes including equities, fixed income and alternatives through Capital Investments.
5. Invest for positive societal impact.

By the end of 2023, the Investment Assets Portfolio was balanced with 51% allocated to Life Science Investments and 49% allocated to Capital Investments.

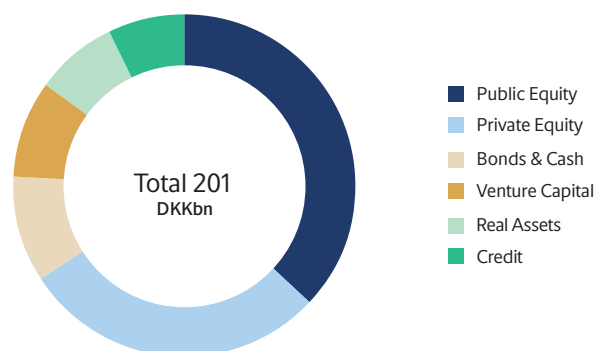
During the year, we continued to comply with the risk tolerance framework agreed with the Novo Nordisk Foundation. This required balancing risk and returns with projected grant payouts for the Foundation. As we come to the end of Strategy 2023 and embark on Strategy 2030, the risk appetite agreed with the Foundation remains unchanged. Asset allocation across the growing sectors with Asia Investments and Real Assets and the new Bioindustrial Investments team has, therefore, been managed within the existing risk framework.

By end of 2023, the Investment Assets Portfolio was valued at DKK 201 billion and is predominantly allocated towards equity, with public equity representing 37% and private equity representing 28% of the portfolio, respectively. The bonds and cash portfolio represent 10% of the Investment Assets Portfolio, venture capital represented 9%, real assets 9% and credit 7%.

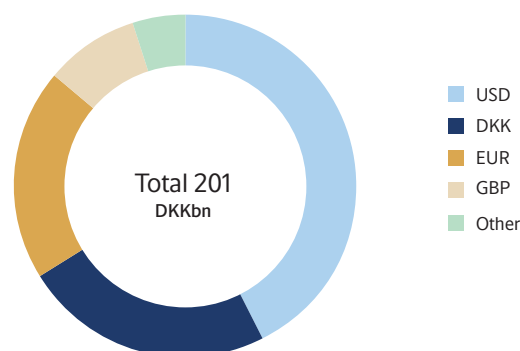
The geographical representation of the Investment Assets Portfolio is largely unchanged compared to the beginning of the year, with around 43% of the portfolio exposed to USD, 24% to DKK, and 20% exposed to EUR.

For nearly 25 years, Novo Holdings has invested in the life sciences sector. Initially spearheaded by Venture Investments, this focus and effort has developed further, with the addition of Seed, Growth and Principal Investments. Today we invest across the full continuum of the life sciences sector, from early start-ups to global well-established companies. During 2023, we increased our presence in Asia by adding four colleagues, complementing and further diversifying our Life Sciences Investment

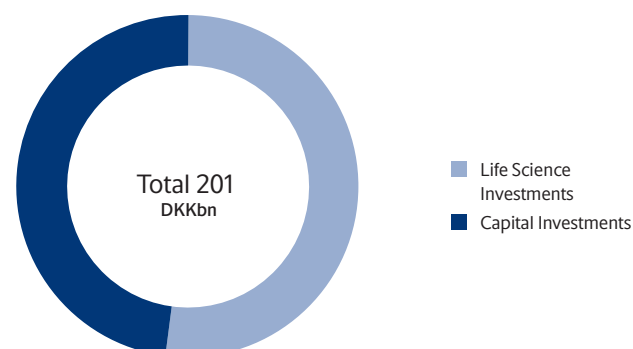
Investment Assets split by asset class, end of 2023



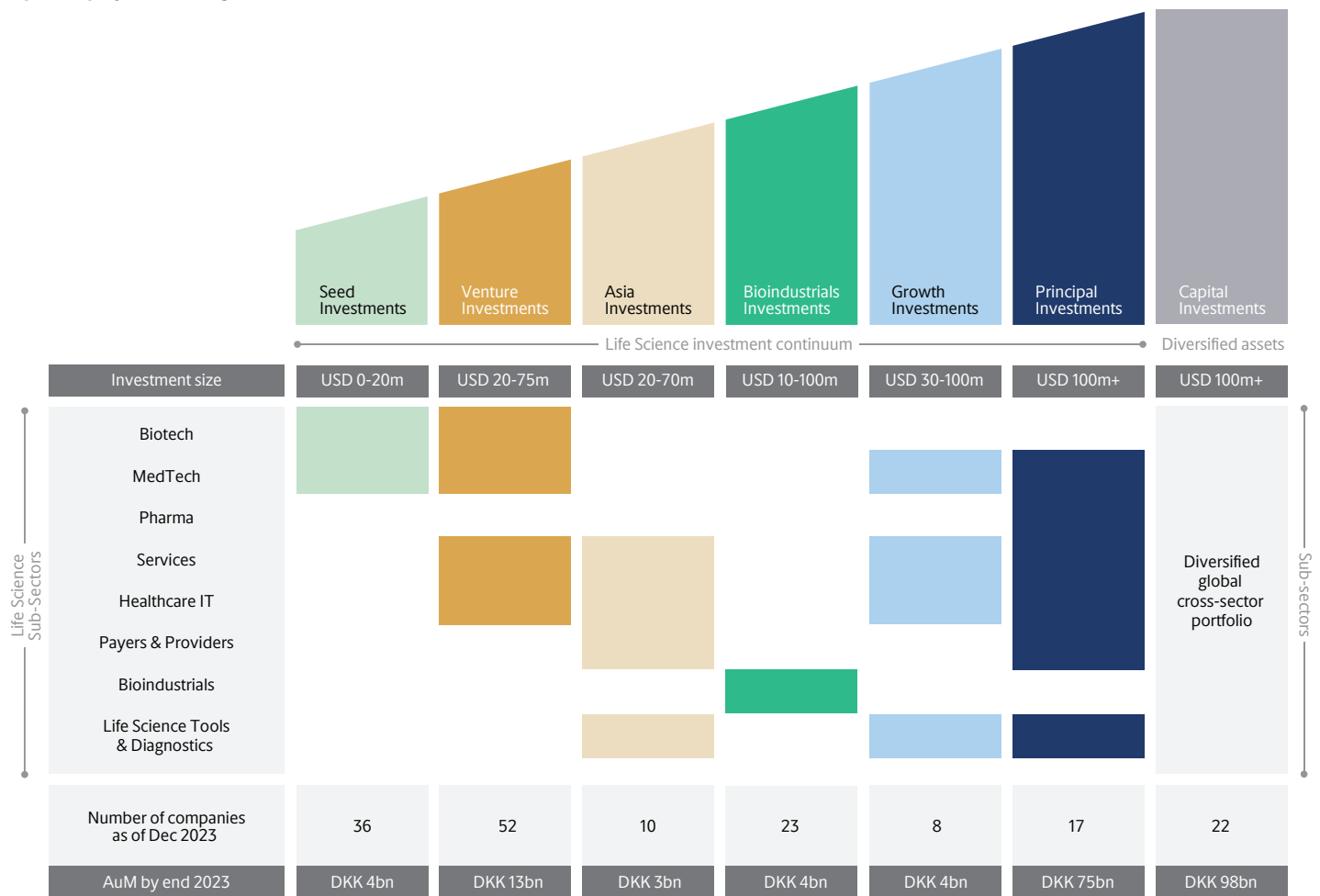
Investment Assets split by currency, end of 2023



Investment Assets split by Life Science Investments and Capital Investments, end of 2023



Capital deployment through seven dedicated investment teams



Assets Portfolio outside of Europe and the US. Additionally we have given new focus to our planetary health efforts by establishing a dedicated Bioindustrial Investment team as part of our Strategy 2030.

The Capital Investments team provides us with global exposure outside the life sciences sector and, in line with our Strategy 2023, we are in the process of expanding and further diversifying the portfolio. In support of this, we have established dedicated resources focusing on private equity and venture capital (non-life science), real assets and credits, as well

as increased our efforts for the management of public equity in-house. This team will also enhance our capabilities to support the global green transition with investments in scaling green infrastructure.

Principal Investments

Novo Holdings' Principal Investments vertical invests in leading, well-established, growth-oriented healthcare and life science companies. Operating out of Copenhagen, London and Boston, Principal Investments focuses on long-term sustainable value creation through an engaged, supportive ownership approach, targeting control, co-control and significant minority investments.

Principal Investments' engaged ownership approach provides its portfolio companies with strategic support, access to a broad life science network and deep sector insights and expertise.

Year in review

While 2023 was characterised by continued macro uncertainty and associated market volatility, coming from a low level, overall activity and buyout deal flow slowly picked up during the year as leveraged finance markets gradually thawed.

The Principal Investments Assets portfolio remains fundamentally sound and robust from an underlying business performance perspective, and with 2023 being another volatile year, Principal Investments' strategy of backing strong management teams of leading companies served it well. Principal Investments continued to actively support its portfolio companies, including in the execution of several add-on acquisitions and other important strategic growth initiatives.

The Principal Investments Assets portfolio was valued at DKK 75 billion at the end of 2023, compared to DKK 75 billion at the end of 2022, and

included 17 companies of which 9 were headquartered in Europe and 8 in North America. Of these, 11 are privately held companies and 6 are publicly listed. From a subsector perspective, Principal Investments' largest exposure is towards life science services, medtech and healthcare IT (excluding bioindustrials).

Investments and financings

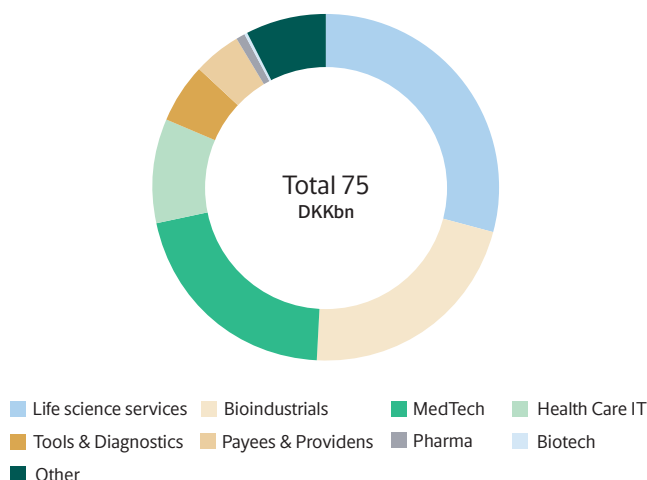
During 2023, Principal Investments made a new platform investment with the acquisition of Ellab. Ellab is a Danish headquartered, global leader providing validation and monitoring solutions and services for measuring and documenting critical parameters such as temperature, pressure and carbon dioxide in mainly biotech and pharma processes. Read more about Ellab on page 24.

Exits

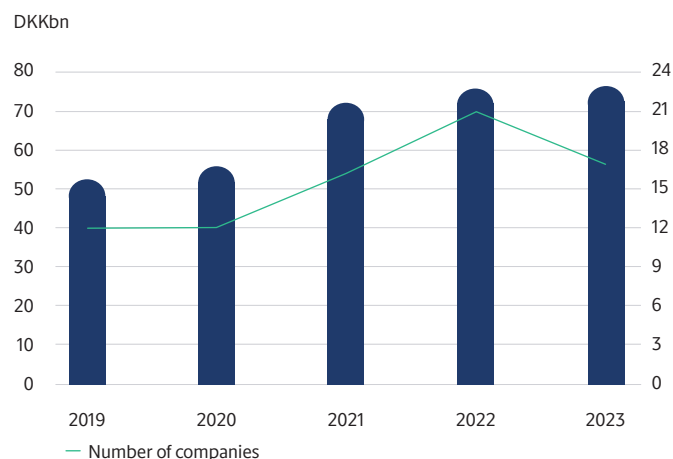
During 2023, Principal Investments realised total proceeds of USD 1.3 billion (including the sale of Synlab which was not closed at year end, see below). These proceeds have in part been generated by full or partial divestments of 7 shareholdings, predominantly from the public portfolio. The most significant exit is the agreement to sell the ~17% shareholding in European listed company Synlab to Cinven for EUR 10 per share returning a total of EUR 380 million. This transaction is expected to close during the first half of 2024.

In addition, proceeds have been generated by partial monetisations in the private portfolio, with the most notable being dividend recapitalisations in Sonion.

Principal Investments Assets portfolio by sub-sectors, end of 2023



Principal Investment Assets portfolio 2019–2023





Going from strength to strength

Novo Holdings acquires Ellab, a global leader in measurement equipment and analysis

The acquisition of Ellab, a global leader in validation and monitoring, stands out as one of the most significant investments for Novo Holdings in 2023.

In August 2023, Novo Holdings' Principal Investment team announced that it had successfully acquired Denmark-based Ellab, an important player in the biotech and pharmaceutical ecosystem specialising in validation and monitoring, from its previous owner EQT Private Equity. The Lundbeck Foundation subsequently joined Novo Holdings in the ownership group by acquiring a significant minority stake.

Ellab has experienced significant growth in recent years and has transformed from mainly being a validation-focused company to also providing a global field service offering and a new monitoring system, specifically targeting the healthcare industry.

When the opportunity to acquire Ellab was identified, Novo Holdings was not deterred by the challenging global transaction environment marked by rising interest rates and geopolitical uncertainties. Ellab's resilience and

consistent topline growth since its inception in 1949 set it apart, noted Henrik Kjær Hansen, Senior Partner, Principal Investments.

"Novo Holdings has followed Ellab closely for several years. The Company has a high-quality offering for the pharmaceutical and biotech sectors, which aligns perfectly with our investment focus and expertise. We are very impressed by Ellab's management team, track record, innovation capabilities, financial profile and customer focus, so there is an excellent match between our organisations," Henrik Kjær Hansen said.

Henrik Kjær Hansen also praised Ellab's financial profile and highlighted its potential in a market with an annual growth rate exceeding 10 percent. Operating in a specialised market, Ellab has demonstrated remarkable prowess, presenting exciting opportunities for further expansion.



"The evolution and growth of Ellab have been truly remarkable, and I am confident that the company will continue its impressive growth trajectory for many years to come."

Christoffer Søderberg
Managing Partner, Principal Investors



Novo Holdings will support the continued growth of Ellab, building on its impressive longstanding track record, by utilising its industry network and global presence to accelerate future business expansion.

Driving future growth

Headquartered in Hillerød, Denmark, Ellab provides validation and monitoring solutions and services for biotech and pharmaceutical processes. Its solutions and services are vital for measuring and documenting

parameters such as temperature, pressure and carbon dioxide, which helps clients to ensure consumer safety and regulatory compliance while reducing time to market and the risk of product loss.

Initially established as a family-owned business in 1949, Ellab started out by developing temperature sensors for the food industry. It has since evolved into a full-suite provider of validation and monitoring solutions and services for the biotech and pharmaceutical industries. Today, the company serves the 20 largest biotech companies and the 40 largest pharmaceutical companies globally.

Ellab: a snapshot of history and growth

- Founded in Denmark in 1949 as "Elektroniklaboratoriet"
- Global leader in measurement equipment and analysis software
- Vital for documenting temperature-related processes
- Serves the biotech, pharmaceutical and other industries
- Exemplary financial performance

Reflecting on the deal and what it means for Novo Holdings, Christoffer Søderberg, Managing Partner and Head of Principal Investments, said: "The evolution and growth of Ellab have been truly remarkable, and I am confident that the company will continue its impressive growth trajectory for many years to come. I am pleased that Novo Holdings will be part of that future success and believe that it will be made stronger by our partnership with the Lundbeck Foundation. As active owners, we are excited to partner with Ellab on this next stage of its journey and to drive our joint strategy of growth and innovation."

Growth Investments

Novo Holding’s Growth Investments vertical makes sizeable investments in scalable, high-growth life science companies at the leading edge of innovation. Operating out of San Francisco, it targets companies in the US, Europe and, in collaboration with the Asia Investments team, companies in Asia that no longer carry binary risk, and which require significant capital for commercial acceleration.

Growth Investments focuses on specific investment ecosystems within four industry areas: life sciences tools and diagnostics, technology within life sciences, complex manufacturing and supply chain and, in collaboration with the Bioindustrials Investments team, life sciences beyond human health. Growth Investments’ mission is to help its portfolio companies to achieve their long-term potential by leveraging its scientific knowledge, operational expertise, and global network. A flexible investment horizon, the ability to deploy significant capital, and an engaged ownership model support this mission.

In addition to its direct investments, Growth Investments takes limited partnership positions with external fund managers to act as accelerators of its core strategy.

Year in review

This has been a challenging year for growth equity as an investment class, as growth-stage companies have been disproportionately affected by the rise in interest rates. The challenges experienced in 2023 were especially pronounced on the public side of Growth Investments’ portfolio, despite

the positive operating momentum enjoyed by many of the companies in the portfolio. This has been counterbalanced by the relative stability on the private side of the portfolio.

At year-end, and excluding assets that are jointly managed with the new Bioindustrial Investments team, the Growth Investments’ Assets portfolio comprised minority positions in eight companies, four of which are based in the US and four in Europe. Three companies within its portfolio are publicly traded, while the remainder are private.

Growth Investments Assets portfolio was valued at DKK 4.3 billion at the end of 2023, compared to DKK 3.9 billion in 2022, including limited partnership positions within external fund managers.

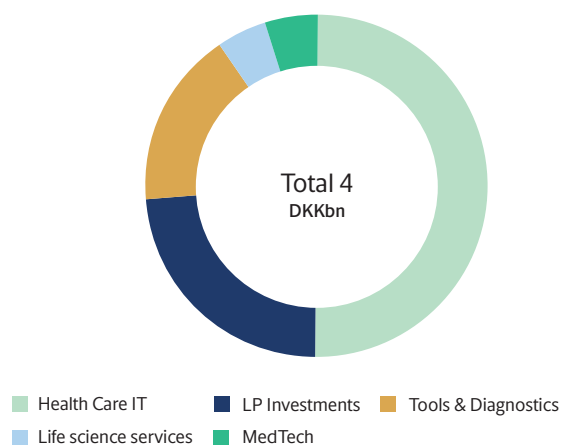
Investments and financings

At the beginning of 2023, Growth Investments executed a new USD 40 million investment in Evosep, to further Evosep’s technology and application portfolio to radically innovate protein-based clinical diagnostics thereby improving patient care.

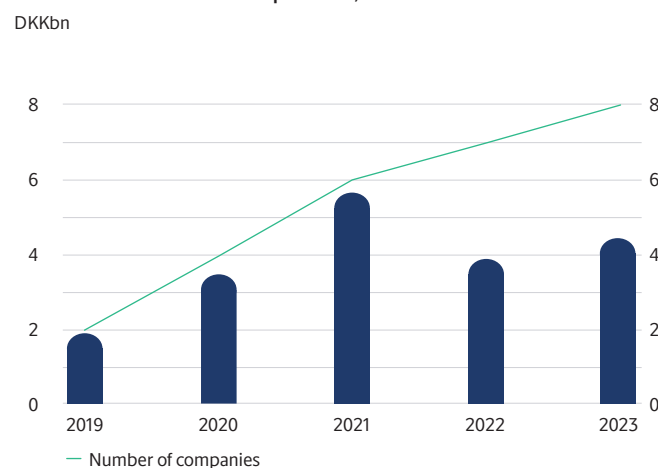
Growth Investments executed one follow-on investment in 2023, deploying DKK 0.5 billion to Oxford Biomedica, a leading gene and cell therapy group focused on developing life-changing treatments for serious diseases.

Growth Investments received capital returns of DKK 13 million during 2023.

Growth Investments Assets portfolio by sub-sectors, end of 2023



Growth Investments Assets portfolio, 2019-2023



Bioindustrial Investments

Novo Holdings' Bioindustrial Investments team was established as a distinct investment vertical at the end of 2022. Operating out of Copenhagen, San Francisco, Boston and Singapore, it has a global mandate to invest in areas where biotechnology can deliver returns and improve planetary health. Bioindustrial Investments' strategic goal is to make investments that drive the green transition – to feed a growing world population, fight climate change and create sustainable cities.

By identifying, creating and investing in early to mature bioindustrial companies that are addressing pressing global problems with innovative technology, Bioindustrial Investments provides support at all stages from technology development to infrastructure advancement and product manufacture.

Bioindustrial Investments collaborates closely with the other investment verticals at Novo Holdings.

Year in review

During 2023, the Bioindustrial Investments team focused on supporting its portfolio companies, 20 of which have been transferred to Bioindustrial Investments from other Novo Holdings' investment verticals, and three of which have been acquired by Bioindustrial Investments this year.

By the end of the year, the Bioindustrial Investments Assets portfolio was valued at DKK 4.1 billion and included 23 companies, of which 22 were private and one public. Based on geography, 78% of the portfolio value was in companies based in the US, 20% in Europe, and 2% in Asia.

Investments and financings

Bioindustrial Investments executed seven investments during 2023, deploying DKK 1 billion. Notable transactions include:

- Co-led a USD 17 million series A financing of Aquafortus, a water technology company that purifies high salinity brines.
- Investment of EUR 4.7 million in HPNow, a Danish firm pioneering an innovative form of water treatment.
- Completed follow-on investments in portfolio companies including 21st. BIO, Bactolife, Biomason, Deep Branch and LanzaTech.

Portfolio company milestones

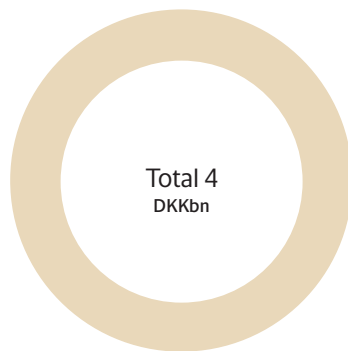
Notable activity this year includes preparation for the merger of our portfolio company Chr. Hansen and our Novo Group company Novozymes.

The merger has closed in the beginning of 2024, creating an industrial biosolutions powerhouse, with the continuing group name Novonesis.

Also this year, several of Bioindustrial Investments' Assets portfolio companies progressed from technology development to scaling and implementation, with products now entering the market. Highlights include:

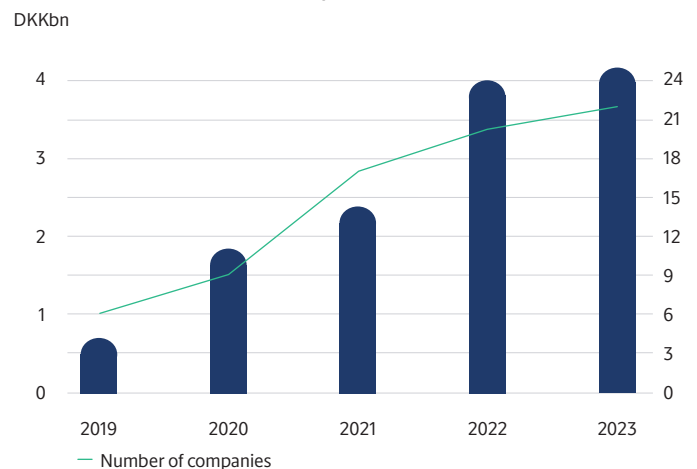
- MycoWorks' textile factory began operations.
- BioMason started commercial manufacturing of Biocement®.
- The Protein Brewery initiated supply of protein-rich food products.

Bioindustrial Investments Assets portfolio by sub-sectors, end of 2023



■ Bioindustrials

Bioindustrial Investments Assets portfolio, 2019-2023



Asia Investments

Novo Holdings' Asia Investments team was established in Singapore in 2021, with a second office opening in Shanghai in 2022. Its strategic goal is to build on and enhance Novo Holdings' position as a global leader in life science investments.

Working closely and synergistically with the other investment verticals at Novo Holdings, Asia Investments utilises deep domain expertise and understanding to invest across life science subsectors, applying a tailored approach to each region and country.

Asia Investments aims to ensure that Novo Holdings is the leading life science investor in the region. The investment vertical has quickly gained traction, building a dedicated in-house team and a geographically diversified portfolio in the region, which represents a large, attractive and growing life science market with a vibrant and sophisticated investment ecosystem.

Year in review

During 2023, Asia Investments focused on building and strengthening its team and establishing itself as an engaged investor across Asia. By the end of the year, the portfolio included 10 companies, of which four were based in China, three in India and three in Southeast Asia.

The majority of the portfolio consists of direct, private investments, valued at DKK 2.7 billion at year-end, compared with DKK 1.4 billion at the end of 2022.

Investments and financings

Notable transactions during 2023 include:

- Co-led series C financing in LePure Biotech, a leading provider of high-

quality and innovative single-use bioprocessing solutions in China.

- Participated in USD 290 million strategic financing round of Sangon Biotech, a leading provider of life science tools and services in China.
- Participated as a cornerstone investor in USD 470 million IPO of WuXi XDC for listing on the Hong Kong stock exchange. WuXi XDC is a contract research, development and manufacturing organisation.
- Participated in the USD 135 million series D financing of Halodoc, an Indonesian-based healthtech platform, in which Novo Holdings first invested in 2021.
- Participated in the USD 39 million series C1 financing of Doctor Anywhere, based in Singapore, in which Asia Investments first invested in 2021, for the acquisition of Asia Healthcare Specialists, a multi-clinic speciality chain.

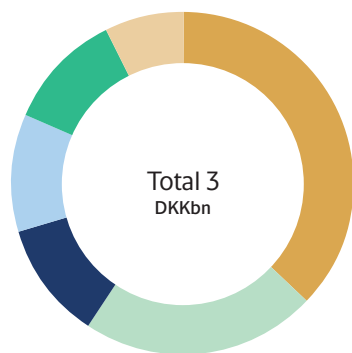
Portfolio company milestones

- Qure.ai received US FDA approval for its AI-enabled chest x-ray solution.
- Following its IPO at the end of 2022, Medanta continued to grow and do well on the stock exchange during 2023.
- MedGenome made two acquisitions to expand its offerings as a leading genomic diagnostic and research services company in South Asia.
- Sangon had a strong top and bottom-line performance in the first half of 2023.
- LePure completed two strategic mergers and acquisitions in the cell culture media and filtration space to enhance their portfolio offerings.

Exits

Asia Investments received distributions of DKK 151 million in 2023 from public trade and DKK 21 million from private trade.

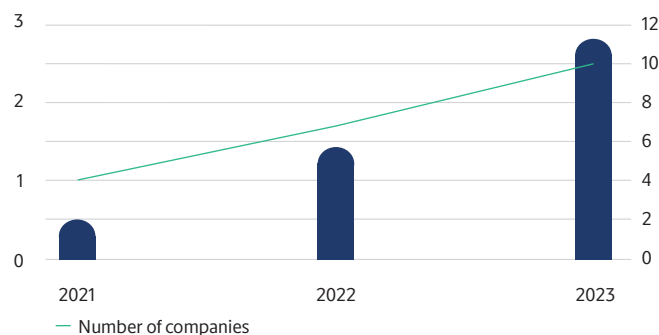
Asia Investments Assets portfolio by sub-sectors, end of 2023



- Tools & Diagnostics
- Health Care IT
- LP Investments
- Life science services
- MedTech
- Payees & Providers

Asia Investments Assets portfolio, 2021-2023

DKKbn



Venture Investments

Investing in novel technologies for over 20 years, Novo Holdings' Venture Investments vertical is one of the largest and most active international life science venture investors.

Venture Investments operates globally with employees based in San Francisco, Boston, London and Copenhagen. Its portfolio includes both private and publicly traded investments in the biotech, medtech and digital health sectors, spanning early-stage, translatable science through commercial stage products.

Year in review

With publicly traded life sciences indices down for most of the year, 2023 was another challenging year for the life sciences industry. Against that market backdrop, Venture Investments performed very well and by year-end, Venture Investments' portfolio was valued at DKK 13 billion, compared to DKK 11 billion in 2022, and included 52 portfolio companies, of which 67% were private and 33% public. Based on geography, 83% of the portfolio value was in US-based companies with the remainder being primarily European companies.

Investments and financings

Venture Investments deployed DKK 3.6 billion in 2023, including DKK 1.4 billion invested in 15 new investments. Notable new investments include

4D Molecular, Alentis Therapeutics, BioGeneration Capital Fund V, CARGO Therapeutics, Cymabay, Fire1, Hillstar Bio, Lexeo Therapeutics, ManaT Bio, Maplight Therapeutics, Octave Health, Pureos Bioventures Fund II, Ray Therapeutics, Terremoto Biosciences and Scion Fund I.

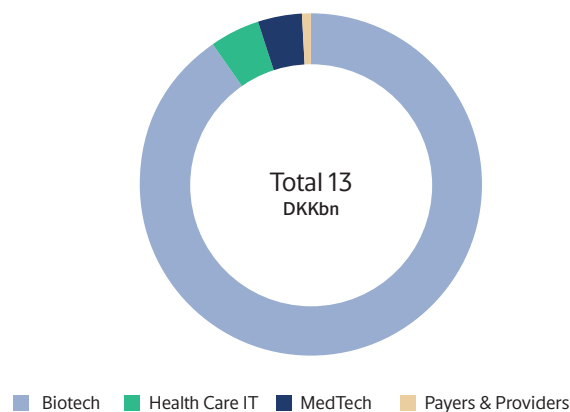
Portfolio company milestones

- CymaBay Therapeutics, Inc. announced positive results from its Phase 3 pivotal RESPONSE study.
- Crinetics Pharmaceuticals, Inc. announced positive results from its Phase 3 PATHFND-1 study.
- Disc Medicine reported positive interim data from its Phase 2 BEACON study.
- Vaxcyte Inc. reported positive clinical and safety data for its 24-valent Pneumococcal Conjugate Vaccine candidate.
- Anthos Therapeutics, Inc. announced positive Phase 2 data.
- Alentis Therapeutics received FDA fast track designation for ALE.C04.
- Amolyt Pharma announced that it will initiate its Phase 3 clinical trial of eneboparatide.

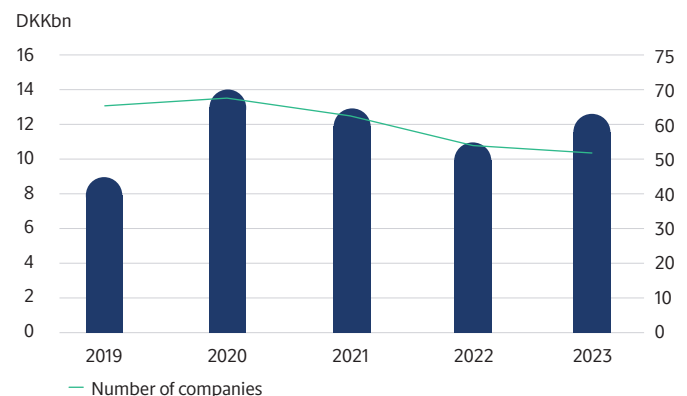
Exits and IPOs

Venture Investments exited 16 investments in 2023, and realised DKK 3.4 billion from the sale of publicly traded stock as well as from the acquisition of several of our portfolio companies.

Venture Investments Assets portfolio by sub-sectors, end of 2023



Venture Investments Assets portfolio 2019–2023



Seed Investments

Novo Holdings' Seed Investments vertical is one of the leading early-stage and company creation investors in Europe. Ever since its inception over 16 years ago, Seed Investments' ambition has been to incubate, build and invest in breakthrough life science companies. It proactively collaborates with innovators globally and takes the lead in building and investing in early-stage start-ups in the Nordic region.

A team of Entrepreneurs in Residence provide solid management competencies which, together with Seed Investments' industry knowledge, expert networks and financing capacity, guide new ventures to achieve significant milestones and successful commercial development. In addition to direct investments in biotechnology companies, the team invests in selected funds and operates the REPAIR (Replenishing and Enabling the Pipeline for Anti-infective Resistance) Impact Fund.

Year in review

Seed Investments has had a successful year, despite the challenging market conditions of 2023. Focus has been placed on ensuring the portfolio is well financed, while building carefully selected new companies.

This year, Seed Investments established its own experimental laboratory in Denmark, to incubate scientific concepts and novel ideas and thereby reduce risk prior to company creation.

By the end of 2023, Seeds Investments' Assets portfolio consisted of 36 companies. Most of the portfolio consists of private investments, valued at

DKK 3.5 billion at year end, 41% higher than at the end of 2022. The REPAIR Impact Fund was valued at DKK 798 million, compared to DKK 317 million at the end of 2022.

Investments and financings

Notable transactions during 2023 include:

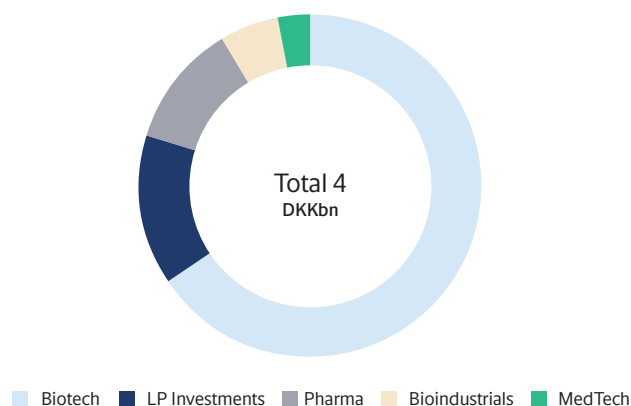
- Participated in Hemab Therapeutics' USD 135 million series B financing.
- Co-led Adcendo's series A extension of EUR 82 million.
- Made a significant investment in the EUR 45 million oversubscribed Series B financing for Acesion Pharma.
- Led the EUR 15m investment in Commit Biologics, a biotech spin-out from Aarhus University.
- Participated in EUR 75 million Series B financing round for NMD Pharma.

REPAIR Impact Fund

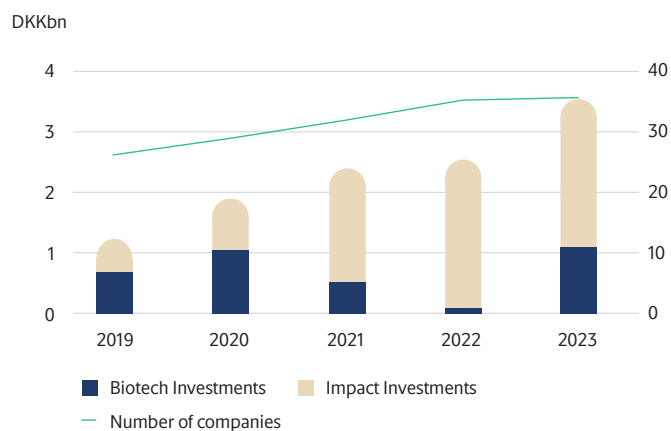
Highlights from 2023 include:

- Together with Gurnet Point Capital, closed the acquisition of Paratek Pharmaceuticals (see page 32).
- Co-led USD 37 million series A financing for LimmaTech Biologics.
- Supported USD 10 million series B financing for Revagenix.
- MinervaX closed several financing extensions and completed Phase 2 trials of its maternal streptococcus vaccine.

Seed Investments Assets portfolio by sub-sectors, end of 2023



Seed Investments Assets portfolio 2019–2023





Antimicrobial Resistance

Our commitment to tackle a silent killer

In 2023, Novo Holdings announced its most significant investment to date in the antimicrobial resistance (AMR) space with the acquisition of Paratek, one of the largest independent antibiotics companies in the world.

The global AMR crisis has become a forefront issue in public health, causing nearly 4.95 million deaths annually as reported by the World Health Organization (WHO). This crisis also stands as a significant economic threat, potentially costing the global economy up to USD 100 trillion by 2050 if no action is taken. One of the root causes is the broken business model surrounding the development and financing of new antibiotics and anti-infectives.

At Novo Holdings, the AMR crisis has been a priority for several years, but 2023 stood out as an exceptional year with several news announcements on the investment side.

In June, Novo Holdings and Gurnet Point Capital announced the agreement to acquire US-based Paratek Pharmaceuticals, a commercial-stage biopharmaceutical company focused on developing and

commercialising novel therapies for life-threatening diseases and other public health threats. The transaction, which closed in August, was valued at USD 462 million.

“Until now, Novo Holdings has mainly been investing in preclinical and early clinical-stage pharmaceutical companies developing new antibiotics through its REPAIR Impact Fund. The Fund was launched in 2018 to help biotech companies advance promising new antibiotics, vaccines and anti-infectives,” said Aleks Engel, Partner at Novo Holdings and Director of the REPAIR Impact Fund.

“The investment in Paratek, however, marks a new milestone for Novo Holdings. Not only is it Novo Holdings’ largest individual investment in AMR therapies to date, but it is also a mature company with substantial commercial success,” noted Aleks Engel.



Paratek's lead commercial product, NUZYRA® (omadacycline), is a once-daily oral and intravenous antibiotic available in the United States and China for the treatment of adults with community-acquired bacterial pneumonia (CABP) and acute bacterial skin and skin structure infections (ABSSSI). NUZYRA is the first-choice antibiotic for patients with comorbidities or suspected resistant pathogens. Paratek's specialty pharmaceutical platform enables both the development and commercialisation of new drugs to bring new innovative therapies to patients.

A multifaceted approach

The current economic model for antibiotic development is flawed. The core of the issue lies in the payment model, in which companies are incentivised to sell as much of an antibiotic as possible, leading to a greater volume of antibiotics used and thereby driving resistance. To avoid just that, use of new antibiotics must be carefully stewarded, which limits sales and dampens the incentive for pharmaceutical companies to develop new drugs, let alone attract investors.

“It’s a challenge to attract sufficient funds to advance the early-stage innovation all the way over the finish line in this space, but we

are also painfully aware that someone must do it. We are doing our utmost to support our REPAIR Portfolio, which today comprises 12 companies, including Paratek, while also raising awareness with policy-makers, other investors, opinion leaders, healthcare professionals and the public about the fact that a global health emergency is happening,” said Aleks Engel.

Novo Holdings’ owner, the Novo Nordisk Foundation, has also embedded several AMR projects in its long-term strategy. Work includes research grants for the discovery of new treatments, global monitoring of AMR genes and public awareness and advocacy for new payment reforms.

“Addressing the AMR crisis requires a multifaceted approach. It’s imperative to reform the economic model governing antibiotic development to encourage new investments and innovations in this field.

Without such changes, the pipeline for new, effective antibiotics will continue to dry up, exacerbating the global health threat posed by AMR,” Aleks Engel concluded.

Novo Holdings’ AMR Investments

Mission: to advance therapeutic innovation with the potential to curb the global AMR crisis

The REPAIR Impact Fund

- The Fund allocation of USD 165 million is earmarked for companies involved in discovering and advancing early-stage development of therapies targeting resistant microorganisms.

The portfolio comprises 12 companies that work to tackle AMR through a broad range of therapeutic modalities.



The AMR Action Fund

- The Fund invests in small and medium-sized clinical-stage biotech companies focused on developing innovative antibacterial treatments that address the most dangerous and resistant bacteria.
- Together with Novo Nordisk, the Novo Nordisk Foundation and Novo Holdings have contributed USD 75 million to the Fund, which has raised USD 1 billion in total.



Paratek Pharmaceuticals

- With annual revenues greater than USD 100 million, Paratek is one of the largest independent antibiotics companies in the world.
- Novo Holdings and Gurnet Point Capital acquired Paratek in 2023 in a deal valued at USD 462 million.



Capital Investments

Capital Investments manages Novo Holdings’ non-life science investments. Providing vital diversification to the Novo Nordisk Foundation asset base. In addition to generating attractive returns, Capital Investments has a global mandate, allocating capital in three areas:

1. Public investments: stocks, credits and bonds.
2. Private equity: venture, growth and buy-outs.
3. Real assets: real estate, infrastructure and the green transition.

Approximately 53% of the Capital Investment portfolio is managed internally and 47% by external managers. With Novo Holdings new strategy to 2030, Capital Investments is set to expand its operations during 2024.

Year in review

By the end of 2023, Capital Investments managed a total portfolio of DKK 98 billion, comprising 49% of the total Novo Holdings Investment Assets portfolio, compared to DKK 83 billion in 2022. The Capital Investments portfolio generated a profit of DKK 7.6 billion, compared to DKK -5.1 billion in 2022.

Public investments

Capital Investments’ public portfolio had a solid performance in 2023. The equity portfolio delivered returns above long-term average returns, on par with the benchmark. The fixed income portfolio also performed well, both on an absolute and a relative basis, with both direct and indirect performing strongly.

Private equity and real assets

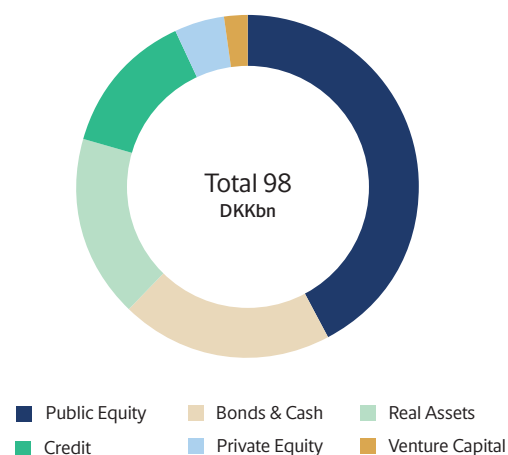
The Capital Investments private portfolio had a more difficult year, as rising interest rates had a negative impact on valuations. This led to multiple contraction and negative returns within the private equity portfolio. The rising interest rates also negatively impacted our real estate exposure in Scandinavia, due to cap rate expansion. This resulted in a negative return in 2023. However, Capital Investments’ real asset exposure in the US, comprising both real estate and infrastructure, delivered positive returns for the year.

Notable investments in 2023 include a EUR 267 million investment in EuroClear, a global provider of financial market infrastructure. EuroClear is committed to investing to support market stability and to develop markets both locally and globally.

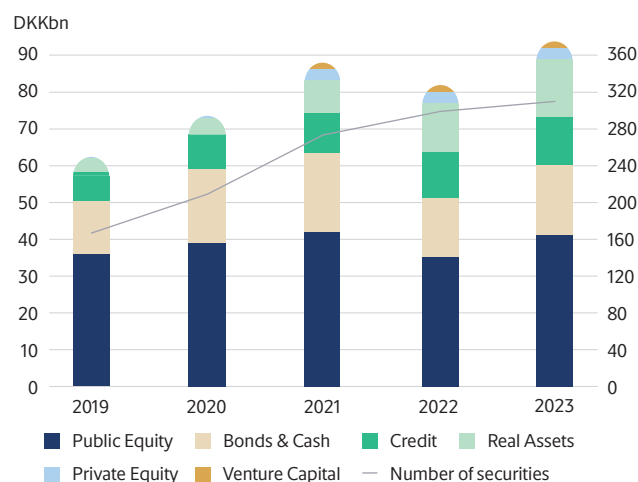
Co-investments in the US include affordable housing in San Francisco and a logistics portfolio in Miami. In Spain, Capital Investments invested in Qualitas, a European renewable energy fund manager.

Capital Investments formally announced its investment in Glentra Capital and the closing of its first fund in September 2023. At the end of the year, they announced their first co-investment in energyRe, a US-based developer of solar and wind power and energy transmission. Read more about Glentra on page 34.

Capital Investments Assets portfolio by asset class, end of 2023



Capital Investments Assets portfolio 2019–2023



novo
holdings



Renewable Energy

New steps towards a greener future

Novo Holdings' Real Assets team made 2023 a milestone year – with over EUR 700 million committed to renewable energy since 2020.

In 2020, Novo Holdings' Capital Investments division established the Real Assets team with a dedicated focus on sectors such as real estate, infrastructure, and renewable energy, aligning with Novo Holdings' commitment to generating positive outcomes to benefit people and the planet.

The real estate portfolio has made several substantial investments, notably with Urban Partners (previously NREP), a real estate developer and investor based in the Nordics, which is committed to leading the way towards a carbon-neutral building sector. The renewable energy sector, however, was an area in which the Real Assets team saw several attractive investment opportunities in 2023, despite a turbulent year for the sector.

One such opportunity was the Q-Energy Fund V, to which Novo Holdings committed EUR 125 million. The Fund is managed by the Spanish renewables manager Qualitas Energy, which focuses on solar, wind, hydro, battery storage and biogas, primarily in Europe and with some activities in the Americas. The primary emphasis of the fund will be on the aging German onshore wind market, to which Qualitas Energy will employ a wind repowering strategy to acquire and replace older, smaller turbines with newer and more efficient turbines.

According to Jacob Lyngsgaard, Senior Partner and Head of Real Assets at Novo Holdings, another landmark development for the Real Assets team was the joint establishment of Glentra in 2022, which was formally announced in September 2023 alongside first closure of its inaugural fund. Glentra Capital is a newly established investment firm with an ambition to accelerate the energy transition for a clean and sustainable future. Novo Holdings invested in Glentra Capital along with PKA, one of Denmark's largest pension funds, as the two anchor investors, making an initial total commitment of EUR ~ 440 million.



Glentra will invest in and grow companies that lead the development and deployment of renewable energy such as offshore and onshore wind, solar, sustainable fuels, energy storage, electric mobility and other related sectors.

“Renewable energy is an area that we have been following closely for a while now,” said Jacob Lyngsgaard. “The investment landscape is incredibly dynamic and there are new developments all the time, making it a vibrant but challenging space to enter. We had the confidence to invest



in Glenra Capital thanks to the expertise of its founders, Henrik Tordrup and Lars Villadsen, who each contribute with deep sectoral knowledge on a global level, combined with many years of investment experience in the energy sector.”

By year end, Novo Holdings and Glenra partnered to execute their first co-investment to which Novo Holdings committed EUR 105 million. The investment was in energyRe, a large US renewables developer with

“Novo Holdings has the capability to invest across all stages of the investment cycle. From nurturing innovative start-ups through our Bioindustrial Investments team to bolstering large-scale projects aimed at scaling the heights of green technology through our Capital Investments team, we can bring innovation to scale.”

Morten Beck Jørgensen

Managing Partner, Capital Investments

a pipeline across offshore wind, onshore wind/solar, transmission, and distributed energy solutions.

Partnerships with great potential

New investments in this sector require meticulous evaluation and due diligence to navigate the complexities and uncertainties that characterise emerging markets such as wind and solar energy. These areas, despite their immense potential, are fraught with risks such as regulatory uncertainties, technological advancements, market fluctuations, and the intermittent nature of renewable energy sources.

“This further emphasises the importance of having the right leadership at the helm. Strong partnerships in this sector – such as the one we have entered with Glenra Capital – are not just about pooling financial resources; they embody a convergence of expertise, experience, and vision that is crucial for navigating the investment landscape with precision and foresight,” said Jacob Lyngsgaard.

Morten Beck Jørgensen, Managing Partner, Capital Investments, added: “Novo Holdings has the capability to invest across all stages of the investment cycle. From nurturing innovative start-ups through our Bioindustrial Investments team to bolstering large-scale projects aimed at scaling the heights of green technology through our Capital Investments team, we can bring innovation to scale. And scale is really the key word here, because the ability to bring emerging energy transition technologies to scale is an essential requirement to enable the green transition globally.”

Since Novo Holdings’ overall focus on the green transition is growing, the Real Assets team will increase its capacity in this area. The team is bringing on board new investment partners with a focus on both direct and indirect investments into the green transition. This expansion aligns seamlessly with Novo Holdings’ new strategy, which will be rolled out in 2024, and includes a significantly larger allocation of funds to green transition investments, with a particular focus on green technologies.

