Nanologica

Sector: Medtech

Q2 2023 – Estimates largely maintained

Redeye maintains its estimates with minor changes following Nanologica's Q2 2023 report, on which we have a rather neutral take. Sales should start increasing from Q3 onwards, and we see the potential for an eventful H2 for Nanologica, which trades at a discount to our base case.

Q2 – Modest sales and expected lower costs in H2

We maintain a relatively neutral view of Q2, which slightly fell below Redeye's estimates in terms of sales and EBIT. However, the deviation is minimal in absolute numbers and can primarily be attributed to lower sales and one-off personnel costs. Apart from minor financial fine-tuning and slightly reduced 2023 estimated costs, we have chosen not to revise our forecasts on the back of the report.

NLAB Saga® included in production of diabetes drug

The pharmaceutical manufacturer in Latin America, which was announced in early June this year has now incorporated NLAB Saga® in the actual production of one of its diabetes drugs, following it leading to higher purity and yield compared to the prior product. Furthermore, we anticipate additional news of similar significance during the second half of 2023, as there are other ongoing customer evaluations. However, it is important to note that the visibility into the structure of these potential larger volume orders is currently limited, which introduces a level of uncertainty.

Valuation and Share Price

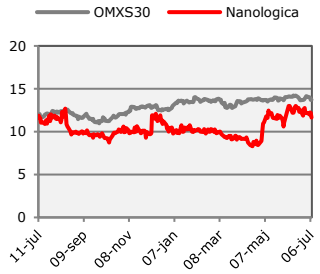
We maintain our fair value range on the back of the Q2 2023 report and reiterate our SEK17 base case. Our bull- and bear cases amounts to SEK30 and SEK7, respectively. We emphasize that the most crucial factor in closing the valuation gap in the near to mid-term and aligning the company with its SEK100m sales financial target for 2024 is the increase in volumes starting from Q3 onwards.

Key Financials (SEKm)	2021	2022	2023e	2024e	2025e
Net sales	12,9	1,6	18,8	95,0	175,6
Sales growth	-20%	-88%	1109%	405%	85%
EBIT	-40,7	-50,8	-42,7	-7,1	35,2
EBIT margin	neg	neg	neg	neg	20%
EV/sales	29,3	188,1	23,6	4,7	2,5
EV/EBIT	-9,3	-5,8	-10,4	-62,3	12,6

FAIR VALUE RANGE

BEAR	BASE	BULL
7	17	30

NICA VS OMXS30 – 12 MONTHS



REDEYE RATING



KEY STATS

Ticker	NICA
Market	Small Cap
Share Price (SEK)	11.7
Market Cap (SEKm)	416
Net Debt (SEKm)	-22
Free Float (%)	53%
Avg. daily volume ('000)	15.2

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Important information: All information regarding limitation of liability and potential conflicts of interest can be found at the end of the report

Investment case

An emerging pick-and-shovel play

We consider Nanologica a pick-and-shovel play, targeting an enticing niche in purifying peptides, such as GLP-1 and insulin. Although its commercial launch was delayed on account of production setbacks, these challenges have now been addressed. Furthermore, the company has garnered client interest, leading to customer evaluations and initial orders. We foresee a sales ramp-up at the end of 2023, which could have a tangible impact on the share price.

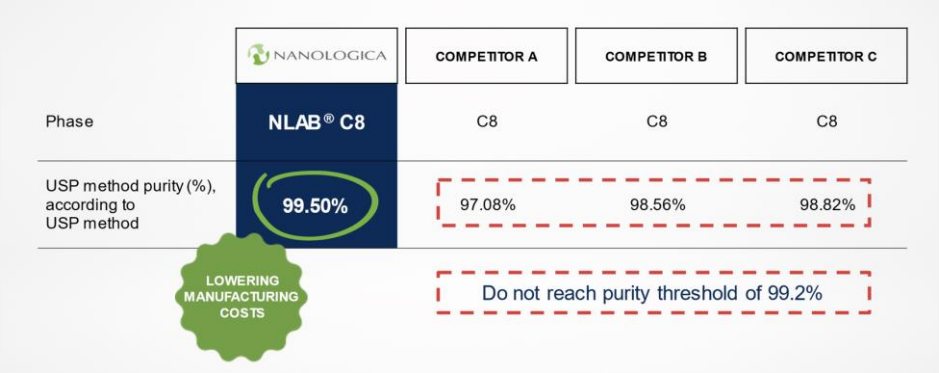
Prerequisites in place for a commercial breakthrough

Nanologica has received several initial orders for NLAB Saga® and even an evaluation order from one of the largest insulin manufacturers in the world, which could offer a significant commercial opportunity. However, a setback in the production process initially impeded Nanologica's ability to fulfil these orders. Nonetheless, as of May 2023, it has effectively resolved this obstacle, ensuring the product now meets the necessary quality standards. Consequently, Nanologica can now commence delivery to customers for larger-scale evaluation, paving the way for a potential sales ramp-up.

Supportive analysis: Growth through health-economics benefits

Nanologica is a leading global producer of nanoporous silica, or silicon dioxide, and has a mission to develop more effective and affordable medicines for the betterment of patients and healthcare systems. It intends its NLAB Saga® product to become the preferred choice for purifying peptides, such as insulin, insulin analogues, and GLP-1 analogues, by chromatography. Its competitors require two rounds of reverse-phase chromatography, while Nanologica has demonstrated that NLAB Saga® achieves a purity level exceeding 99.2% after only one round.

This purification stage is the costliest step in insulin production, representing up to 25% of total production costs, Nanologica estimates. Cost reduction is a crucial driver for pharmaceutical manufacturers, making treatment more affordable and available to more patients. The utilisation of NLAB Saga® enhances purification process efficiency, and silicon's durability allows it to be used in multiple cleaning cycles, bringing significant cost savings for pharmaceutical manufacturers.



The market for preparative chromatography is – along with Nanologica's commercial prospects – projected to experience rapid growth due to the increasing prevalence of type 2 diabetes and obesity, which necessitates the broader use of insulin and GLP-1. Given the cost savings it affords customers, the company's financial targets suggest SEK100m in 2024 sales, which we believe could expand to cSEK260m in 2026e.

Challenge I: Barriers to entry

Replacing established methods in the healthcare and pharmaceutical industry is a lengthy process that requires thorough investigations by potential customers and long sales lead times. Acknowledging this, we see a risk that the sales ramp-up is longer than anticipated, leading to slower sales than Nanologica's guidance suggests.

Challenge II: Production scale-up could pose challenges

Nanologica's products have captured customer interest, and the company has anticipated sales growth in recent years. However, the outbreak of COVID-19 and its aftermath and the challenges encountered during the production scale-up have created significant hurdles that have taken longer than expected to overcome, delaying previous sales objectives considerably. Although the company has largely addressed these issues now, it is essential to highlight that additional challenges in the production scale-up may arise, potentially bringing further delays to Nanologica's ability to fulfill large-scale production.

SEK17 base case - sales growth to close the valuation gap

Our 2023e-2032e DCF suggests a base case fair value of SEK17, suggesting upside potential. The observed discrepancy likely stems from skepticism surrounding the anticipated sales ramp-up, which we believe will ultimately close the valuation gap. Our bull case scenario amounts to SEK30, while our bear case scenario stands at SEK7. We anticipate that the realization of quarterly reports confirming sales growth will serve as catalysts to bridge the valuation gap.

Nanologica base case DCF

Redeye base case				
Assumptions		**DCF**	**SEKm**	**Per share (SEK)**
Tax rate	20,6%	2023e-2025e	-15	-0,4
WACC	12,5%	2026e-2030e	250	6,9
CAGR, 2023e-2025e	205,7%	Terminal	412	11,4
CAGR, 2026e-2031e	15,2%	Net debt	-22	-0,6
Average EBIT 2026e-2031e	27,8%			
Shares outstanding	36,1			
Terminal values, 2032		**Fair value**	**625**	**17**
Group sales	544	Upside from current price		48%
Terminal growth	2%			
EBIT margin	25%			

Source: Redeye Research

Q2 2023 – Review

We maintain a relatively neutral stance on Nanologica's Q2 2023 report. Both sales and EBIT figures slightly fell below our estimates; however, in absolute numbers, the deviations are small. Accordingly, we maintain our view from our recent reinitiation that the prerequisites are at hand and that it is important to consider the lead times involved in the sales process. Given the announced customer evaluations and agreements we anticipate that sales will begin to improve in Q3 and Q4. The EBIT for the quarter reached SEK13.3m (-12.4m), slightly below our projected SEK-12m. This deviation primarily stems from higher-than-anticipated personnel costs, including a one-time expense of SEK-1.3m related to the personnel cut-off in Drug Development.

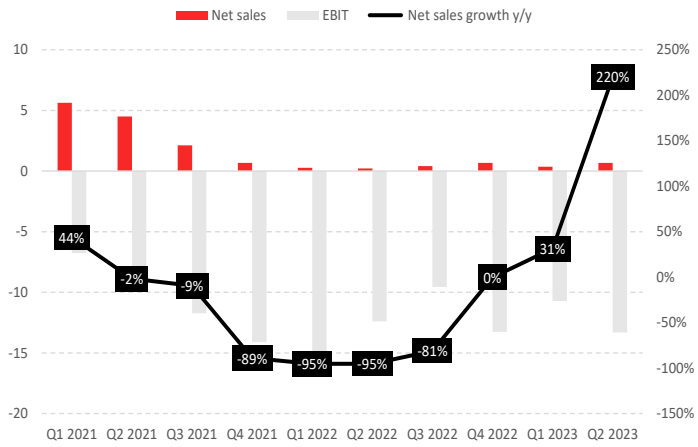
According to the report, Nanologica expects a reduction in cash burn as a result of increasing sales and the restructuring efforts in Drug Development, which are projected to yield annual cost savings of approximately SEK7.5m.

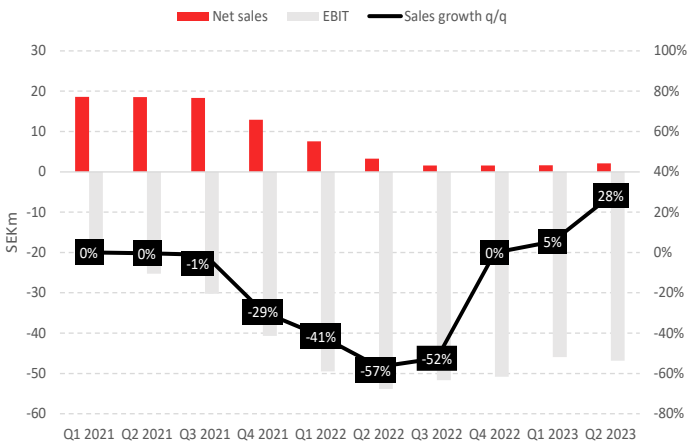
Q1 2023e vs Q1 2023a (SEKm)

(SEKm)	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q2 2023e	dev.%	dev. Abs.
Net sales	**0,2**	**0,4**	**0,7**	**0,4**	**0,7**	**1,3**	**-47%**	**-0,6**
Sales growth y/y	-95%	-81%	0%	31%	220%	500%		
Sales growth q/q	-22%	91%	68%	-47%	89%	255%		
Gross profit	**1,2**	**1,4**	**1,5**	**1,5**	**0,8**	**0,4**	**83%**	**0,4**
Gross margin (%)	565%	352%	223%	412%	120%	35%		
OPEX	**-10,7**	**-8,1**	**-11,7**	**-8,9**	**-10,5**	**-9,1**	**16%**	**-1,4**
Other external expenses	-3,7	-2,2	-3,3	-1,9	-2,1	-3,0	-32%	0,9
Personnel costs	-6,5	-5,8	-8,3	-6,8	-8,2	-5,8	42%	-2,4
Other operating expenses	-0,5	-0,1	-0,1	-0,2	-0,2	-0,3	-17%	0,0
EBITDA	**-9,5**	**-6,6**	**-10,2**	**-7,5**	**-9,7**	**-8,6**	**12%**	**-1,1**
EBITDA margin	-4518%	-1658%	-1506%	-2101%	-1442%	-685%		
EBIT	**-12,4**	**-9,6**	**-13,3**	**-10,7**	**-13,3**	**-12,0**	**11%**	**-1,3**
EBIT margin	-5903%	-2384%	-1966%	-3019%	-1981%	-955%		

Source: Redeye research, company data

Quarterly financials left, LTM financials right (SEKm)

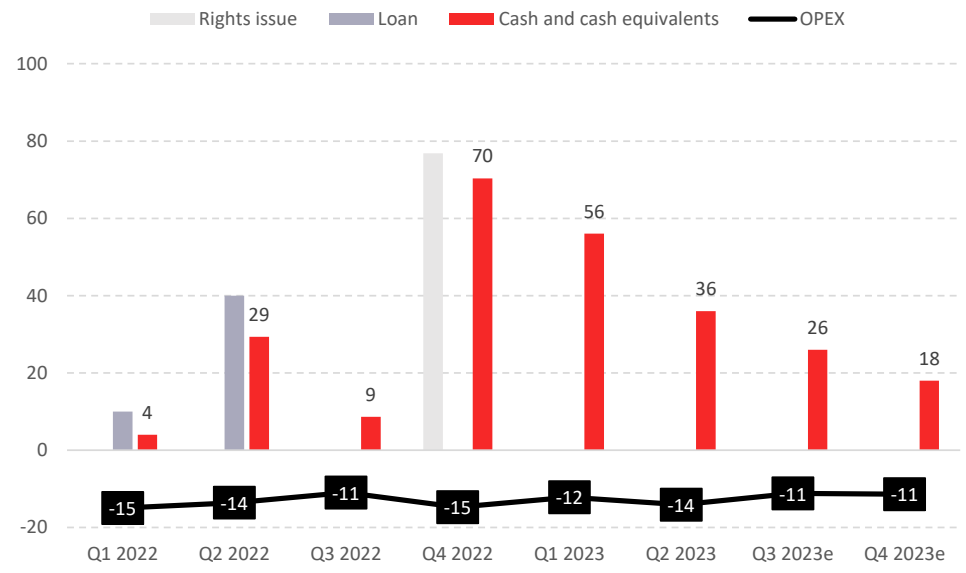




Source: Redeye research, company data

The cash position at the end of the quarter amounted to SEK36m, which does not signal any immediate need for a capital injection. We emphasize that the sales ramp-up in the upcoming quarters, coupled with the implemented cost-saving measures to reduce cash burn, will determine whether Nanologica requires another capital injection before achieving positive cash flow. Nevertheless, we believe that a potential financing gap likely could be addressed through debt financing.

Cash position and OPEX estimate



Source: Redeye Research

Financials

After digesting the quarterly report, we have made the following adjustments to our financial forecasts:

- We slightly lower our Q3/Q4 OPEX estimate to account for the implemented cost-saving efforts
- Minor financial fine-tuning

Updated forecasts 2023e-2025e

	Updated			Previous			Chg %	Chg %	Chg %
	2023e	2024e	2025e	2023e	2024e	2025e	2023e	2024e	2025e
Net sales	**19**	**95**	**176**	**19**	**95**	**176**			
Other income*	*1*	*2*	*4*	*1*	*2*	*4*			
EBITDA	**-29**	**-3**	**42**	**-36**	**-3**	**42**	**-18%**	**-1%**	
Depreciation/Amortization	*-14*	*-4*	*-7*	-14	-4	-7			
EBIT	**-43**	**-7**	**35**	**-49**	**-7**	**35**	**-13%**	**-1%**	
EBIT margin (%)	*-227%*	*-7%*	*20%*	-254%	-7%	20%			

Source: Redeye Research

Historical financials and preview 2019 – 2025e (SEKm)

SEKm	2019	2020	2021	2022	Q1 2023	Q2 2023	Q3 2023e	Q4 2023e	2023e	2024e	2025e
Revenues	**14,2**	**20,0**	**13,5**	**4,8**	**2,1**	**2,4**	**3,6**	**14,2**	**19,8**	**97,0**	**179,6**
Net sales	9	16	13	2	0	1	4	14	19	95	176
Other income*	5	4	1	3	2	2	0	0	1	2	4
Gross Profit	**8,9**	**16,0**	**6,0**	**3,5**	**1,5**	**0,8**	**1,3**	**5,0**	**6,1**	**43,3**	**89,0**
COGS	-5	-4	-8	-1	-1	-2	-2	-9	-14	-54	-91
OPEX	**-23,5**	**-29,9**	**-36,2**	**-42,5**	**-8,9**	**-10,5**	**-7,9**	**-8,0**	**-35,3**	**-46,6**	**-46,8**
Other external expenses	-8	-12	-13	-14	-2	-2	-2	-2	-8	-19	-13
Personnel costs	-15	-18	-21	-27	-7	-8	-6	-6	-27	-27	-32
Other operating expenses	-1	0	-2	-1	0	0	0	0	-1	-1	-2
EBITDA	**-14,6**	**-13,9**	**-30,2**	**-39,0**	**-7,5**	**-9,7**	**-6,6**	**-3,0**	**-29,2**	**-3,3**	**42,2**
Depreciation/Amortization	*-5*	*-6*	*-10*	*-12*	*-3*	*-4*	*-3*	*-3*	*-14*	*-4*	*-7*
EBIT	**-20,1**	**-19,6**	**-40,7**	**-50,8**	**-10,7**	**-13,3**	**-9,9**	**-6,4**	**-42,7**	**-7,1**	**35,2**
Taxes and net financials	*-1*	*-3*	*-4*	*0*	*-1*	*-1*	*-1*	*-1*	*-4*	*-2*	*-9*
Net income	**-21,1**	**-22,2**	**-44,8**	**-50,8**	**-12,1**	**-14,7**	**-10,4**	**-6,9**	**-46,5**	**-9,1**	**25,8**
Sales growth y/y (%)	*N/A*	*75%*	*-20%*	*-88%*	*31%*	*220%*	*800%*	*2000%*	*1108%*	*405%*	*85%*
Gross margin (%)	*63%*	*80%*	*44%*	*73%*	*70%*	*34%*	*35%*	*35%*	*31%*	*45%*	*50%*
EBITDA margin (%)	*-158%*	*-86%*	*-234%*	*-2507%*	*-2101%*	*-1442%*	*-184%*	*-21%*	*-156%*	*-3%*	*24%*
EBIT margin (%)	*-217%*	*-121%*	*-315%*	*-3270%*	*-3019%*	*-1981%*	*-275%*	*-45%*	*-227%*	*-7%*	*20%*
EPS	*-1,3*	*-0,8*	*-1,6*	*-1,4*	*-0,3*	*-0,4*	*-0,3*	*-0,2*	*-1,3*	*-0,3*	*0,7*

*Including change in inventories and capitalized work for own use

Source: Redeye research, company data

Valuation

At Redeye, we approach the valuation of a company's stock using three scenarios, to provide a dynamic view of the case. As a complement to our base case valuation, we also model pessimistic (bear case) and optimistic (bull case) scenarios.

The differences in estimates between the scenarios are based on modifications of the assumptions used in our valuation process. However, we apply a WACC of 12.5%, based on: (i) an equity risk premium derived from qualitative and quantitative aspects of the company using our Redeye company quality model; and (ii) Redeye's risk-free interest rate of 2.5%. We do not factor any M&A into our forecasts. These assumptions apply across our scenarios.

Base case – SEK17

Our base case represents the most probable scenario, in which we see customer evaluations starting to materialise at the end of 2023, with sales ramping up significantly during 2024, assuming Nanologica will become cash-flow-positive at the end of that year.

Base case DCF

Redeye base case				
Assumptions		**DCF**	**SEKm**	**Per share (SEK)**
Tax rate	20,6%	2023e-2025e	-15	-0,4
WACC	12,5%	2026e-2030e	250	6,9
CAGR, 2023e-2025e	205,7%	Terminal	412	11,4
CAGR, 2026e-2031e	15,2%	Net debt	-22	-0,6
Average EBIT 2026e-2031e	27,8%			
Shares outstanding	36,1			
Terminal values, 2032		**Fair value**	**625**	**17**
Group sales	544	Upside from current price		48%
Terminal growth	2%			
EBIT margin	25%			

Source: Redeye Research

Sensitivity analysis

		Weigthed Average Cost of Capital (WACC)				
		14,5%	13,5%	12,5%	11,5%	10,5%
Terminal EBIT margin	21,0%	12,2	13,8	15,6	17,9	20,7
	23,0%	12,8	14,5	16,5	18,9	21,9
	25,0%	13,4	15,2	17,3	19,9	23,1
	27,0%	14,0	15,9	18,1	20,9	24,3
	29,0%	14,6	16,6	19,0	21,9	25,5

Source: Redeye Research

Bull case – SEK30

In our bull case, we assume Nanologica swiftly establishes itself as a trusted supplier of NLAB Saga® to large-volume customers providing more extensive sales growth and slightly higher margins in the near and long term compared to our base case.

Bull case DCF

Redeye bull case				
Assumptions		**DCF**	**SEKm**	**Per share (SEK)**
Tax rate	20,6%	2023e-2025e	-14	-0,4
WACC	12,5%	2026e-2030e	442	12,2
CAGR, 2023e-2025e	244,1%	Terminal	678	18,8
CAGR, 2026e-2031e	15,8%	Net debt	-22	-0,6
Average EBIT 2026e-2031e	29,3%			
Shares outstanding	36,1			
Terminal values, 2032		**Fair value**	**1 084**	**30**
Group sales	895	Upside from current price		157%
Terminal growth	2%			
EBIT margin	25%			

Source: Redeye Research

Bear case – SEK7

In our bear case, we take a moderate view of the sales ramp-up in the coming years and believe Nanologica would need to raise additional equity ahead of turning cash-flow-positive in 2024. We incorporate a rights issue of cSEK35m leading to a dilution of c11% in the start of 2024. We also assume slightly lower margins.

Bear case DCF

Redeye bear case				
Assumptions		**DCF**	**SEKm**	**Per share (SEK)**
Tax rate	20,6%	2023e-2025e	-14	-0,4
WACC	12,5%	2026e-2030e	124	3,1
CAGR, 2023e-2025e	176,6%	Terminal	181	4,5
CAGR, 2026e-2031e	10,2%	Net debt	11	0,3
Average EBIT 2026e-2031e	24,3%			
Shares outstanding	36,1			
Shares outstanding (diluted)	40,4			
Terminal values, 2032		**Fair value**	**302**	**7**
Group sales	293	Downside from current price		-36%
Terminal growth	2%			
EBIT margin	20%			

Source: Redeye Research

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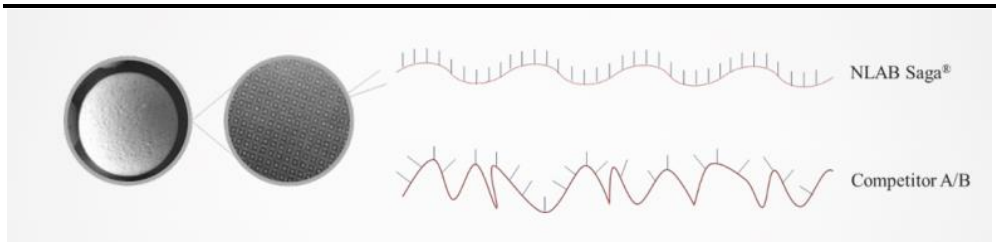
General summary

Background

Nanologica, founded in 2004, originated from research in material sciences, specifically in the areas of synthesis, analysis, and characterisation of new porous materials under the direction of Dr Alfonso Garcia-Bennett. The company operates in two main areas: drug development and chromatography (preparative and analytical).

Its goal is to increase access to innovative treatments and medicines worldwide for the benefit of patients. In preparative chromatography, Nanologica aims to reduce the cost of insulin and other diabetes drugs by providing a purification product that is more efficient and long-lasting than those of competitors. The company's NLAB Saga® product works by providing a smooth surface on silica particles, enabling a high coverage of ligands and a large available surface area, as illustrated below, leading to more efficient purification performance and a longer-lasting product.

NLAB Saga®



Source: Company report

In drug development, Nanologica has developed a unique platform for delivering drugs locally to the lungs. By loading drugs into the pores of silica particles, the drugs' solubility and bioavailability can be improved, protecting the drugs from degradation, while a wider range of substances, including biologics, can be formulated for inhalation. This platform aims to provide new treatment options for patients with severe lung diseases.

Nanologica has a small research and production facility at its headquarters in Södertälje, at which it conducts the development of new products and small-scale silica production. In 2019, the company invested in large-scale production capacity at a contract manufacturer in the UK. It successfully produced material identical to the material produced at its pilot plant in Södertälje.

The company was listed on the Spotlight Stock market in 2015, and its shares have, since March 2022, been listed on Nasdaq Small Cap.

Value proposition

The key advantage of Nanologica is its ability to produce more cost-effective and high-quality medicines utilising its proprietary porous silica technology. This has significant implications as healthcare costs continue to rise, as does demand for solutions that can help control these costs. The company's technology provides policymakers and payers with a valuable tool for addressing this challenge. In addition, the company's products offer customers the opportunity to require one round fewer of reverse-phase chromatography while still achieving the required purity, allowing for more cost- and resource-effective drug production.

Competitive advantages

Nanologica has developed expertise in the production and functionalisation of nanoporous materials. Its technology offers superior precision and customisation for its customers. In preparative chromatography, internal know-how of the production process of its silica creates a barrier against competitors, and by refraining from patenting the production process, the company believes it can maintain its competitive advantage for a more extended period than if the process was made public through a patent application or patent. We view this as a high-risk/high-reward strategy.

Business strategy

The market for high-quality silica for chromatography could be viewed as an oligopoly currently dominated by established international players like Osaka Soda, YMC, and Nouryon. Nanologica specialises in preparative chromatography. It primarily serving manufacturers of diabetes drugs and peptides that require chemically and mechanically stable silica for purification processes, Nanologica's silica offering clear advantages over competitors' (as described in the Value Proposition section above). This places the company in a growing market driven by an increasing demand for insulin and other diabetes medications. The market is considered an oligopoly, and Nanologica is one of the few suppliers worldwide to produce silica suitable for purifying insulin, insulin analogues, and GLP-1s. The company manufactures its silica for preparative chromatography on a ton scale at a contract manufacturer.

Should Nanologica establish a strong position in preparative chromatography, we see the potential for it to extend its offering other solutions related to preparative chromatography, such as ion exchange resin or soft product often called a bead made of cellulose or agarose.

In drug development, Nanologica focuses on inhaled drugs and respiratory diseases based on its proprietary drug delivery platform for delivering drugs to the lungs. By validating and evaluating chemical, biological, clinical, regulatory, and commercial properties, it can select the most viable drug candidates for further clinical development, partly in-house and partly in partnership with other companies. Nanologica's strategy here is to conduct clinical studies through phase 2 (demonstrating safety and early efficacy support) and then license or sell the projects to pharmaceutical companies for further clinical development and market launch.

People and ownership

Management and board

Nanologica has ~20 employees. CEO Andreas Bhagwani has been with the company in his current role since 2011 and has a background as a management consultant specialising in sales and leadership. He has co-founded several companies, including Sigrid Therapeutics and Atrogi. CFO Eva Osterman has a background in finance at larger companies including Lantmännen and PwC, and has held various positions in business controlling, financial controlling, audit, and reporting.

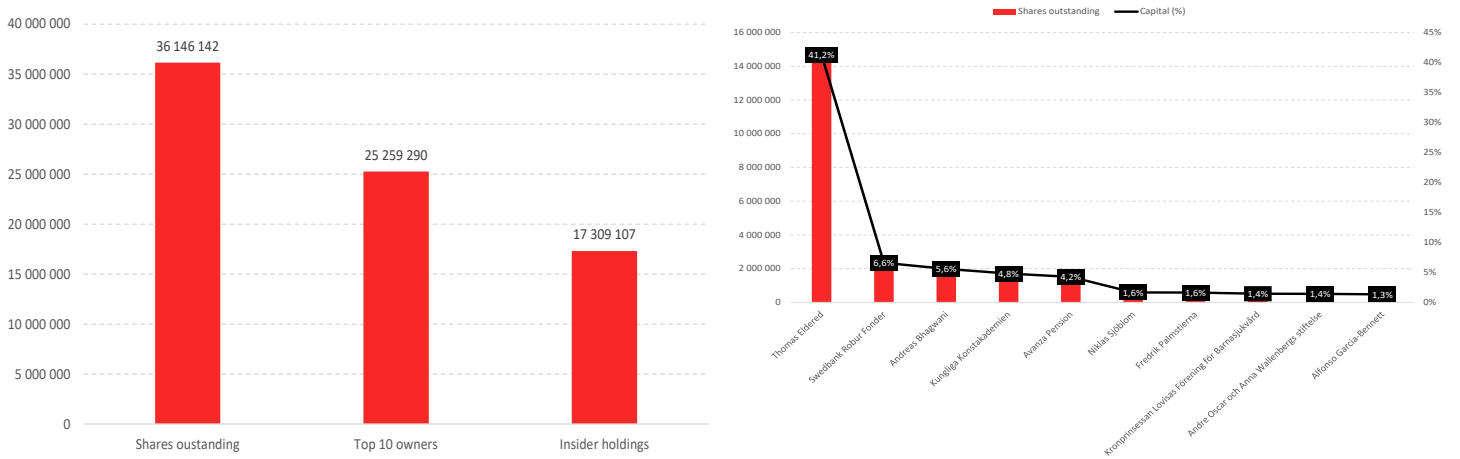
Chair Gisela Sitbon has been on the board since 2012 and has more than 25 years of experience in the life science industry. She has served as CEO at Professional Genetics Laboratory AB and as a section manager at Karo Bio. Currently, she works as a business coach in the life science sector and is also the chair at Gradientech AB and Emplicure AB.

Overall, Nanologica's management, backed by its board, possesses the experience and skills to navigate the company toward a commercial breakthrough, in our view. A more detailed description of individuals on the board and in management can be found in the appendices of this report.

Ownership base

The largest shareholder is Thomas Eldered (Flerie Invest), the co-founder of Recipharm, which EQT acquired in a cUSD2.1bn deal. Other major owners include institutional ownership in the form of Swedbank Robur Funds and CEO Andreas Bhagwani.

Shareholders structure



Source: Modular finance (2023-06-07)

Nanologica's insider ownership amounts to 47%, the majority held by board member Thomas Eldered, who owns some 15 million shares (equivalent to 42% of equity). The CEO holds around two million shares (9% equity), and chair Gisela Sitbon has 26,666 shares (0.1% equity). At Redeye, we consider skin-in-the-game positively, as it signals alignment with shareholder values in management decision-making. Accordingly, Nanologica scores well on this parameter.

Appendices

Management and board

Management

Name	Position	Shares	Options
Andreas Bhagwani 	CEO EMBA from the Stockholm School of Economics and studies in agronomy at the Swedish University of Agricultural Sciences. Andreas has co-founded several companies, the most recent being Sigrid Therapeutics AB and Atrogi AB. He has worked as a management consultant in several companies for over a decade, specialising in sales and leadership. Current assignments include board member of Vega Bianco AB, CEO and chairman of the board of Nanologica Black AB and Nanologica Yellow AB, board member of Nanghavi AB and Nanghavi Chromatography Solutions Pvt Ltd, deputy board member and partner of Kichisaga Leadership AB and holder of the individual firm Baraza Konsult.	2 017 264	200000
Eva Osterman 	Chief Financial Officer Master of Science in Business Administration and Economics from Uppsala University. Several years of experience in finance at larger companies where she has worked with business controlling, financial controlling, reporting, and internal audit. Other current assignments include board member of Nanghavi Chromatography Solutions Pvt Ltd and Nanologia Australia Pty. Ltd, deputy board member of Nanghavi AB, Nanologica Black AB, Nanologica Yellow AB, and Consensor AB, and auditor in Rangsta Båtklubb	51 283	150 000
Anna-Karin Renström 	Chief Operating Officer Master of Science in Industrial Economics from the Linköping University of Technology and Executive Management Program from Stockholm School of Economics. Prior to her work with Nanologica, Anna-Karin worked as the CEO of Telge Inköp for 10 years. Other current assignments include Avia Pharma Holding AB and AKRR Konsult AB.	48 483	0
Gary Pitcairn 	Chief Scientific Officer BSc in Biochemistry and Biological Chemistry from the University of Nottingham and Ph.D. from the University of Nottingham. Gary has vast experience and is recognised as an expert in inhaled drug delivery. Prior assignments include AstraZeneca where he worked as Head of Project Leadership fro Respiratory Pharmaceutical Technology & Development and work at Mylan and Pfizer. Gary is also a board member of GRP Consulting AB	0	115 000
Ulf Ericsson 	VP Drug Development Master of Science in Business Administration, BSc, Business Economics, and MSc, Marketing Management from Lund University. Over 20 years of experience in leading marketing and business development positions in the respiratory field and inhalation. Ulf most recently worked at AstraZeneca where he held various roles.	2 861	115 000
Katarina Alenäs 	SVP Chromatography Master of Science in Chemical Engineering at Lund Technical University and Bachelor of Science in Pharmaceutical Sciences from the University of Greenwich. Extensive experience in the life science industry and has most recently worked for 10 years at Agilent Technologies. Katarina has also worked as a product manager at Shamadzy HPLC/LCMS. Current board member of Biotech I Kungsbacka AB.	0	120 000

Source: Company data

Board of directors

Name	Position	Shares	Options
Gisela Sitbon 	Chairman of the board PhD. in Medical Sciences from the Karolinska Institute. Over 25 years of experience within the life science industry. Prior assignments include CEO and other roles at Professional Genetics Laboratory AB and section manager at Karo Bio AB. Other current assignments includes chairman of the board of Grandientech AB, Emplicure AB, and board member of Stibon Bioscience Partner Zenz AB.	26 666	
Mattias Bengtsson 	Director Master of Science Engineering from Chalmers University of Technology in Gothenburg and MBA from University of Gothenburg School of Business. Over 20 years of experience in the chemical and life science industry. Prior assignments include senior positions at AkzoNobel and several positions in process chemistry at AstraZeneca in Södertälje. Other assignments include Business Unit Manager BioMedical & Research at AddLife AB, Board Member of MaBeRo Consulting AB, Bergman Labora AB, LabRobot AB, LabVent Control AS, Holm&Halby AS, and EuroClone Spa.	13 000	
Thomas Eldered 	Director Master of Science in Industrial Economics from Linköping Technical University. Thomas is the co-founder of Recipharm AB where he also worked for 13 years. Other prior experiences include Vice President of Recip AB and Factory Manager for Pharmacia. He has also held various assignments in companies primarily in the life science sector.	14 901 635	
Anders Rabbe 	Director Bachelor of Economics in Business Administration from Webster University. Anders has been the CEO of several companies in the biotechnology and financial sectors. Other current assignments include CEO of Mindforce Lab AB and board member of Akkumula AB, Albonja AB, and Epicyt Pharma AB.	13 333	
Lena Torlegård 	Director Bachelor of Science in Business Administration for the Stockholm School of Economics. Over 20 years of experience as a communications consultant for various companies. Lena works through Lena Torlegård AB as an independent advisor in financial and corporate communication. Current chairman of the board of CoDesignSweden AB	7 652	

Source: Company data

Chromatography

The process of silica-based liquid chromatography involves separating various substances in a solution by passing it through a column, where the different substances interact with silica particles, making them pass through the column at different speeds.

This method is commonly used as a purification process in the production of peptide drugs like insulin, where large quantities of silica are employed in preparative chromatography columns. The residual products formed during insulin production must be removed before the drugs can be considered safe for human use. Purification is achieved by allowing the insulin and residual products to bind differently to the silica particles, resulting in different rates of passage through the column during a purification cycle. Once purified by this technique, the insulin is of sufficient purity to treat patients and can be formulated for administration.

Silica-based analytical liquid chromatography is utilised in the pharmaceutical and food industries to analyse solutions and determine the presence of various substances and their concentrations. It is also used to evaluate silica materials as purification media for preparative chromatography before customers choose them. Nanologica specialises in preparative high-performance liquid chromatography (HPLC). The company also offers analytical HPLC solutions.

When processes are conducted at a low pH, the functional groups on the surface of silica particles, known as ligands, can be hydrolysed. This affects surface properties and can result in reduced separation capacity. Conversely, a high pH can cause the dissolution of the silica matrix itself, leading to a decline in product performance.

Thanks to Nanologica's exclusive manufacturing process, however, its silica particles have a smooth surface, allowing for even distribution of ligands that shield the silica from degradation caused by harsh purification chemicals like lye. This results in a product that consistently delivers high performance and a long lifespan.

NLAB Saga®'s high performance enables a streamlined purification process, and its exceptional durability allows for multiple purification cycles, leading to significant cost savings for pharmaceutical manufacturers. Cost reduction is a critical driver for drug manufacturers, as this purification step can account for up to 25% of the total production cost in insulin production, according to calculations by Nanologica.

Nanologica's NLAB Saga®

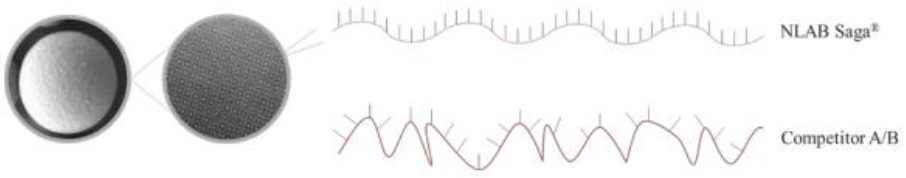


Image: A smooth surface of the silica particle allows for a high coverage of ligands and a large available surface area, which leads to a higher and more even performance.

Source: Company website

Drug delivery

Nanologica's second business area, drug development, utilises micrometre-sized spherical silica particles that contain thousands of nanometre-sized pores in its drug delivery technology. These nanoporous particles have been specifically designed to transport drugs directly to the lungs, and their particle size is closely monitored (1-5µm) to ensure maximum deposition in the lungs. The particles are composed of biosoluble amorphous silica, meaning it dissolves in lung fluid and is eliminated from the body as silicic acid via the kidneys. Medicinal substances are encapsulated inside these nanoporous particles to create pharmaceutical products for inhalation. This approach could also enable local lung treatment in cases where only systemic therapies are available.

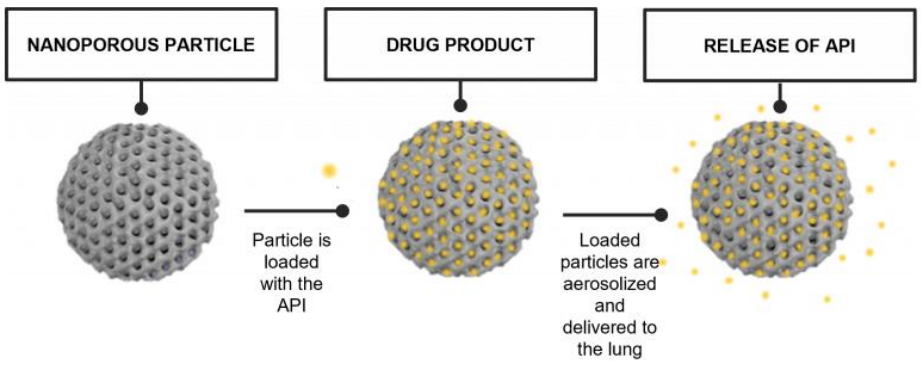
Nanologica's NAP™ technology comes with three primary advantages:

- Increased solubility and/or bioavailability for drug substances
- Controlled release profile creating new opportunities for the treatment of lung disease
- Potential platform for delivery of biological drugs to the lungs

The drug development process involves creating new drugs or enhancing existing ones from the idea phase through preclinical and clinical studies until they are ready for the market. Drug delivery encompasses different approaches for delivering drugs to the body and various techniques for formulating and manufacturing drugs. The goal is to deliver the appropriate amount of medication to the right place in the body at the right time.

Nanologica's loaded particles are aerosolised into a dry powder for inhalation without additional excipients and delivered to the lungs where the active pharmaceutical ingredient is released from the pores of the particles. Aerosolisation of Nanologica's drug-loaded particles results in a fine particle fraction (the proportion of particles that are the optimal size for inhalation) in the range of 70–80%, which is twice as much as conventional dry powder inhalation products. This implies a larger portion of the drug dose has the potential to reach the lungs than with conventional products. The flow properties of NAP™ are not altered since the loaded particles remain free-flowing and can be easily dispensed into a dry powder inhaler.

Nanologica's NAP™ technology



Source: Company website

Summary Redeye Rating

The rating consists of three valuation keys, each constituting an overall assessment of several factors rated on a scale of 0 to 1 points. The maximum score for a valuation key is 5 points.

Rating changes in the report: No rating changes in the report

People: 3

Business: 3

Financials: 0

	2021	2022	2023e	2024e
INCOME STATEMENT				
Net sales	13	2	19	95
Gross Profit	6	4	6	43
Operating Expenses	36	42	35	47
EBITDA	-30	-39	-29	-3
Depreciation & Amortization	10	12	14	4
EBIT	-41	-51	-43	-7
Net Financial Items	-4	0	0	0
EBT	-45	-51	-46	-9
Income Tax Expenses	0	0	0	0
Non-Controlling Interest	0	0	0	0
Net Income	-45	-51	-46	-9
BALANCE SHEET				
Assets				
Current assets				
Cash & Equivalents	11	70	27	31
Inventories	2	1	19	24
Accounts Receivable	43	1	5	9
Other Current Assets	1	44	38	24
Total Current Assets	57	117	88	88
Non-current assets				
Property, Plant & Equipment, Net	2	3	4	7
Goodwill	0	0	0	0
Intangible Assets	14	16	18	25
Right-of-Use Assets	25	19	13	12
Shares in Associates	0	0	0	0
Other Long-Term Assets	0	0	0	0
Total Non-Current Assets	42	38	34	44
Total Assets	98	155	123	131
Liabilities				
Current liabilities				
Short-Term Debt	2	1	1	16
Short-Term Lease Liabilities	3	3	3	3
Accounts Payable	4	2	14	14
Other Current Liabilities	6	7	10	13
Total Current Liabilities	14	14	28	46
Non-current liabilities				
Long-Term Debt	1	0	0	0
Long-Term Lease Liabilities	3	1	1	1
Other Long-Term Liabilities	28	67	67	67
Total Non-current Liabilities	32	68	68	68
Non-Controlling Interest	0	0	0	0
Shareholder's Equity	52	73	27	18
Total Liabilities & Equity	98	155	123	131
CASH FLOW				
NOPAT	-41	-51	-43	-7
Change in Working Capital	-14	0	0	7
Operating Cash Flow	-46	-45	-33	1
Capital Expenditures	-1	-2	-2	-3
Investment in Intangible Assets	-6	-7	-8	-10
Investing Cash Flow	-7	-7	-10	-13
Financing Cash Flow	-2	112	0	15
Free Cash Flow	-54	-54	-43	-12

DCF Valuation Metrics	**Sum FCF (SEKm)**
Initial Period (2023–2027)	56
Momentum Period (2028–2031)	179
Stable Period (2032–)	450
Firm Value	647
Net Debt (last quarter)	22
Equity Value	625
Fair Value per Share	17

SHAREHOLDER STRUCTURE	**CAPITAL %**	**VOTES %**
Thomas Eldered	41%	41%
Swedbank Robur Fonder	7%	7%
Andreas Bhagwani	6%	6%
Kungliga Konstakademien	5%	5%
Avanza Pension	4%	4%

SHARE INFORMATION	
Reuters code	NICA.ST
List	Small Cap Stockholm
Share price	11,7
Total shares, million	36,1

MANAGEMENT & BOARD	
CEO	Andreas Bhagwani
CFO	Eva Osterman
Chairman	Gisela Sitbon

ANALYSTS
Filip Einarsson
Johan Unnerus

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Redeye Rating and Background Definitions

Company Quality

Company Quality is based on a set of quality checks across three categories; PEOPLE, BUSINESS, FINANCE. These are the building blocks that enable a company to deliver sustained operational outperformance and attractive long-term earnings growth.

Each category is grouped into multiple sub-categories assessed by five checks. These are based on widely accepted and tested investment criteria and used by demonstrably successful investors and investment firms. Each sub-category may also include a complementary check that provides additional information to assist with investment decision-making.

If a check is successful, it is assigned a score of one point; the total successful checks are added to give a score for each sub-category. The overall score for a category is the average of all sub-category scores, based on a scale that ranges from 0 to 5 rounded up to the nearest whole number. The overall score for each category is then used to generate the size of the bar in the Company Quality graphic.

People

At the end of the day, people drive profits. Not numbers. Understanding the motivations of people behind a business is a significant part of understanding the long-term drive of the company. It all comes down to doing business with people you trust, or at least avoiding dealing with people of questionable character.

The People rating is based on quantitative scores in seven categories:

- Passion, Execution, Capital Allocation, Communication, Compensation, Ownership, and Board.

Business

If you don't understand the competitive environment and don't have a clear sense of how the business will engage customers, create value and consistently deliver that value at a profit, you won't succeed as an investor. Knowing the business model inside out will provide you some level of certainty and reduce the risk when you buy a stock.

The Business rating is based on quantitative scores grouped into five sub-categories:

- Business Scalability, Market Structure, Value Proposition, Economic Moat, and Operational Risks.

Financials

Investing is part art, part science. Financial ratios make up most of the science. Ratios are used to evaluate the financial soundness of a business. Also, these ratios are key factors that will impact a company's financial performance and valuation. However, you only need a few to determine whether a company is financially strong or weak.

The Financial rating is based on quantitative scores that are grouped into five separate categories:

- Earnings Power, Profit Margin, Growth Rate, Financial Health, and Earnings Quality.

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Disclaimer

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Redeye Rating (2023-07-09)

Rating	People	Business	Financials
5p	32	15	4
3p - 4p	142	128	43
0p - 2p	5	36	132
Company N	179	179	179

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Filip Einarsson owns shares in the company : No
Sebastian Andersson owns shares in the company : No
Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.